

TABLE OF CONTENTS

1
2
3 Table of Contents 1
4
5 Table of Motions 2
6
7 Confirm the Landings Year Sequence to Be Used to Calculate the
8 SYL for Puerto Rico Recreational Jacks 5
9
10 Clarify the Process for Calculating SYL and ABC for Stock
11 Complexes with Two Indicator Species 8
12
13 Finalize the Indicator Species Selection for Grouper Unit 5 and
14 Snapper Unit 3 in St. Croix and for Grouper Unit 4 in St.
15 Thomas/St. John 17
16
17 Determine Whether to Use the Alternative Year Sequences for St.
18 Croix and St. Thomas/St. John Proposed by the SEFSC for Tiers 4a
19 and 4b 33
20
21 Clarify Whether to Include an Additional Buffer Reduction to
22 Account for Scientific Uncertainty Resulting from the
23 Reallocation of Unspecified Landings for Tiers 4a and 4b 58
24
25 Reconsider Tier Assignment for Grouper Unit 4 (St. Thomas/St.
26 John) and Grouper Unit 5 (St. Croix) Presently Assigned to Tier
27 4b 62
28
29 For Each Stock/Complex Included in Tier 4b - Establish Scalar
30 for Determining SYL and Finalize Scientific Uncertainty Buffer
31 for SYL to ABC 66
32
33 Reconsider Ad Hoc ABC for St. Croix Queen Conch 101
34
35 Acknowledge the Council's Directive to Remove Additional
36 Reductions Proposed by the SSC to be Applied to the SYL for
37 Ecologically-Important Species 113
38
39 Address Summary Report from February/March 2018 SSC Meeting .. 115
40
41 Adjournment 119

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TABLE OF MOTIONS

1
2
3 PAGE 6: Motion to establish recreational landings year
4 sequences for Puerto Rico jacks to be 2000 to 2016. The motion
5 carried on page 7.

6
7 PAGE 14: Motion to use the following method to calculate SYL
8 and ABC for complexes with two indicators: (a) sum the annual
9 landings of the indicator species and calculate a single SYL and
10 ABC applicable to the complex. The motion carried on page 16.

11
12 PAGE 23: Motion to not have an indicator species for Snapper
13 Unit 3 (lane/gray complex) in St. Croix. The motion carried on
14 page 23.

15
16 PAGE 27: Motion to not select an indicator for Grouper Unit 5
17 in St. Croix and use the aggregate approach. The motion carried
18 on page 30.

19
20 PAGE 32: Motion to not select an indicator for the Grouper Unit
21 4 in St. Thomas/St. John and use the aggregate approach. The
22 motion carried on page 33.

23
24 PAGE 53: Motion to revisit the year sequence for STT/STJ and
25 STX at the July SSC meeting based on information provided to the
26 SSC at that meeting by the SEFSC. The motion carried on page
27 57.

28
29 PAGE 60: Motion to adopt for the Tier 4a species additional
30 reductions to the scientific uncertainty buffer to account for
31 allocation of unspecified landings, applied as follows. If
32 unspecified landings are less than 10 percent of the reference
33 period total, do not adjust the baseline buffer. If unspecified
34 landings are 10 to 35 percent of the reference period total,
35 then reduce the baseline buffer by 0.05. If unspecified
36 landings are greater than 35 percent of the reference period
37 total, then reduce the baseline buffer by 0.1. The motion
38 carried on page 62.

39
40 PAGE 64: Motion to maintain the Tier 4b assignment for Grouper
41 Unit 4 in Puerto Rico and St. Thomas/St. John and for Grouper
42 Unit 5 in St. Croix. The motion carried on page 66.

43
44 PAGE 80: Motion to adopt the same scalar setting process that
45 was used for Tier 4a (susceptibility score times VAF) to
46 determine the SYL for Tier 4b species with a maximum scalar of
47 less than two. The motion carried on page 82.

1 [PAGE 83](#): Motion to adopt the same buffer setting process that
2 was used for Tier 4a to determine the ABC for Tier 4b species.
3 [The motion carried on page 85.](#)

4
5 [PAGE 85](#): Motion to adopt for Tier 4b species additional
6 reductions to the scientific uncertainty buffer to account for
7 allocation of unspecified landings, applied as follows. If the
8 unspecified landings are less than 10 percent of the reference
9 period landings total, then do not adjust the baseline buffer.
10 If the unspecified landings are 10 to 35 percent of the
11 reference period total, then reduce the baseline buffer by 0.05.
12 If the unspecified landings are greater than 35 percent of the
13 reference period total, then reduce the baseline buffer by 0.1.
14 [The motion carried on page 86.](#)

15
16 [PAGE 108](#): Motion to set the ABC for St. Croix queen conch at
17 50,000 pounds. [The motion carried on page 112.](#)

18
19 [PAGE 113](#): Motion to rescind reductions in SYLs based on
20 ecological importance, but it recommends that the Caribbean
21 Fishery Management Council consider such reductions as follows.
22 Parrotfish in St. Thomas and Puerto Rico have a 15 percent
23 reduction applied to the ABC to get to the ACL. Parrotfish in
24 St. Croix would have a 20 percent reduction applied to the ABC
25 to get to the ACL. Angelfish in all three islands would have a
26 25 percent reduction ABC to get to the ACL. Surgeonfish in all
27 three islands would have a 25 percent reduction in ABC to get to
28 the ACL. [The motion carried on page 115.](#)

29
30 - - -

1 **CARIBBEAN FISHERY MANAGEMENT COUNCIL**
2 **SCIENTIFIC AND STATISTICAL COMMITTEE**
3 **Webinar**

4
5 MAY 29, 2018
6

7 The Scientific and Statistical Committee of the Caribbean
8 Fishery Management Council convened via webinar on Tuesday
9 morning, May 29, 2018, and was called to order by Chairman
10 Richard Appeldoorn.

11
12 **RICHARD APPELDOORN:** I think we're ready to get started here.
13 We need to do a voice recognition.
14

15 **GRACIELA GARCIA-MOLINER:** If you want to start the meeting, you
16 do have a quorum, and so you need to say the date and everything
17 else so we can start the record.
18

19 **RICHARD APPELDOORN:** Okay. We're going to start the meeting.
20 Today is the 29th of May, and it's about 8:25, and this is the
21 SSC meeting. We're going to start with a voice recognition,
22 starting with the people in the room here, and so that's myself,
23 and this is Rich Appeldoorn, SSC Chair.
24

25 **GRACIELA GARCIA-MOLINER:** Graciela Garcia-Moliner, council
26 staff. I have unmuted everyone, if you want to just --
27

28 **RICHARD APPELDOORN:** I think we should just call out the -- Why
29 don't we call out each person?
30

31 **GRACIELA GARCIA-MOLINER:** Okay. So, online, we have Doug
32 Gregory. Good morning.
33

34 **DOUGLAS GREGORY:** Good morning. I'm glad to be here. Thank
35 you.
36

37 **GRACIELA GARCIA-MOLINER:** You're welcome. Jocelyn.
38

39 **JOCELYN D'AMBROSIO:** This is Jocelyn D'Ambrosio, NOAA Office of
40 General Counsel.
41

42 **SARAH STEPHENSON:** Sarah Stephenson, SERO staff.
43

44 **BILL ARNOLD:** Bill Arnold, NOAA Fisheries.
45

46 **JOSEPH KIMMEL:** Joe Kimmel, SSC member.
47

48 **JORGE GARCIA-SAIS:** Reni Garcia, SSC.

1
2 **GRACIELA GARCIA-MOLINER:** You have Kevin. Kevin, are you there?
3 Good morning.
4
5 **KEVIN MCCARTHY:** Yes, Kevin McCarthy, SSC.
6
7 **GRACIELA GARCIA-MOLINER:** Okay. Walter?
8
9 **WALTER KEITHLY:** Present.
10
11 **GRACIELA GARCIA-MOLINER:** Okay. That's who you have online.
12 For SSC members, you have six, and so you do have a quorum.
13
14 **CONFIRM THE LANDINGS YEAR SEQUENCE TO BE USED TO CALCULATE THE**
15 **SUSTAINABLE YIELD LEVEL (SYL) FOR PUERTO RICO RECREATIONAL JACKS**
16
17 **RICHARD APPELDOORN:** All right. The first item on the agenda
18 then is you all should have the briefing document, the webinar
19 briefing document, which has the agenda first and then all the
20 information associated with those items following, and so the
21 first item on the agenda is to confirm the landings year
22 sequence to be used to calculate sustainable yield level for
23 Puerto Rico recreational jacks.
24
25 If people have read the information there, I will give you my
26 take on it. These are all new species, and they are handled as
27 new species, and I don't know where the other issue came from.
28 Are there comments by the SSC? You all have to say something,
29 because I can't look at your face and tell what you're thinking,
30 and so, Joe.
31
32 **JOE KIMMEL:** Yes, these are all new species, and that's what I
33 got from reading the briefing document, and it looks like to me
34 that they're new to management and we're supposed to use 2000 to
35 2016, and that's fine with me, but, frankly, I would prefer to
36 eliminate jacks from the FMP.
37
38 I see people making faces here, and I'm sure you're making them
39 there as well, but these species have low reported landings.
40 They are in the hundreds of pounds, and jacks are not
41 commercially important food fishes. Who is monitoring the
42 recreational jack fisheries now that there is no MRIP in Puerto
43 Rico? Jacks are low susceptibility to being seriously depleted,
44 and --
45
46 **RICHARD APPELDOORN:** Joe, I don't want to interrupt, but I'm
47 going to.
48

1 **JOSEPH KIMMEL:** I am more for eliminating them from the FMP than
2 those items there, but, if we have to manage them, then 2000 to
3 2016 is what I would vote for.
4

5 **RICHARD APPELDOORN:** Well, I mentioned in the last meeting, and
6 maybe the last two meetings of the council, that they may want
7 to revisit the issue of some of the species being managed, and
8 that's not on the agenda for today, and so the question is the
9 year sequence. Kevin.
10

11 **WALTER KEITHLY:** Can I make a suggestion, though? Maybe we can
12 move that up earlier, so that some of these other issues we
13 don't need to bring up.
14

15 **RICHARD APPELDOORN:** It's not on the agenda for today.
16

17 **WALTER KEITHLY:** I thought it was, the discussion of taking out
18 some species that had minor landings. Let me get to the agenda.
19

20 **RICHARD APPELDOORN:** I don't think so.
21

22 **JOCELYN D'AMBROSIO:** I don't see that on the agenda either.
23 Rich is correct.
24

25 **WALTER KEITHLY:** Okay. I stand corrected then. Maybe I just
26 heard it.
27

28 **RICHARD APPELDOORN:** We're not ignoring that issue, but it's
29 just going to be at a different meeting.
30

31 **WALTER KEITHLY:** Okay. Maybe that's --
32

33 **KEVIN MCCARTHY:** I am happy to go with the consistency, the new
34 to management, 2000 to 2016.
35

36 **RICHARD APPELDOORN:** Reni?
37

38 **JORGE GARCIA-SAIS:** I agree with that.
39

40 **RICHARD APPELDOORN:** Doug, you're new to this, but welcome
41 aboard.
42

43 **DOUGLAS GREGORY:** Thank you. I agree.
44

45 **RICHARD APPELDOORN:** Okay. We didn't have a motion, per se, but
46 we have a unanimous consensus.
47

48 **KEVIN MCCARTHY:** I am happy to make the motion.

1
2 **JOCELYN D'AMBROSIO:** Just so we're clear on the rationale,
3 Richard mentioned at the beginning that it was because these are
4 new species, but just if we could clarify, just for the record,
5 so it's perfectly clear why we're choosing the later time
6 series.
7
8 **RICHARD APPELDOORN:** All right. Kevin has made a motion.
9
10 **KEVIN MCCARTHY:** The rationale is that they presumably have not
11 been affected by the imposition of the ACLs, right, and so we
12 don't have any management effect.
13
14 **RICHARD APPELDOORN:** Correct.
15
16 **GRACIELA GARCIA-MOLINER:** Do you want to second the motion?
17
18 **RICHARD APPELDOORN:** I need a second on the motion.
19
20 **JORGE GARCIA-SAIS:** Second.
21
22 **RICHARD APPELDOORN:** Second by Reni.
23
24 **GRACIELA GARCIA-MOLINER:** Jocelyn, do we need to vote or just by
25 consensus?
26
27 **JOCELYN D'AMBROSIO:** I think we need a vote.
28
29 **RICHARD APPELDOORN:** **Is there any opposition?**
30
31 **JOSEPH KIMMEL:** I vote yes.
32
33 **JORGE GARCIA-SAIS:** Yes.
34
35 **KEVIN MCCARTHY:** I think my yes was implicit in the motion,
36 right?
37
38 **RICHARD APPELDOORN:** Yes. Walter.
39
40 **WALTER KEITHLY:** Yes.
41
42 **RICHARD APPELDOORN:** Doug.
43
44 **DOUGLAS GREGORY:** Yes.
45
46 **RICHARD APPELDOORN:** Me. Yes. **That is six yes.** All right.
47 The second item on the agenda is -- Actually, I would like to
48 suggest a change in the agenda, which I forgot to mention. The

1 last item before lunch looks at what we're going to do with Tier
2 4b, but there is the two o'clock that is we consider the tier
3 assignment for Grouper Unit 4 for Puerto Rico, and this is
4 basically the only thing that's in Tier 4b, and, if we move that
5 up and decide not to keep it in 4b, we won't have any 4b species
6 to establish scalars on. Do we want to move up the case of the
7 grouper units on the three islands, or do we want to struggle
8 with Tier 4b on the assumption that we might have a Tier 4b
9 species at that point? I am suggesting moving Item 4 down to
10 Item 6, I think that would be.

11
12 **JOCELYN D'AMBROSIO:** The only other thing that I would mention
13 is that I know the control rule -- Obviously it has the SYL and
14 the ABC, and so I know, for a lot of the species, the ABC was
15 set at zero, but I think one of the questions also is how do you
16 set the SYL for those species, and so it might be that you would
17 need to discuss the scalar even if you're not then talking about
18 the buffer from the SYL to ABC.

19
20 **RICHARD APPELDOORN:** I'm not sure we want to spend a lot of time
21 designing a procedure that we're not going to use.

22
23 **KEVIN MCCARTHY:** Rich, your suggestion makes sense to me. I am
24 in favor of reshuffling the agenda.

25
26 **RICHARD APPELDOORN:** Is anybody else not in agreement with that?

27
28 **GRACIELA GARCIA-MOLINER:** You want to change this one over here?

29
30 **CLARIFY THE PROCESS FOR CALCULATING SYL AND ACCEPTABLE**
31 **BIOLOGICAL CATCH (ABC) FOR STOCKS WITH TWO INDICATOR SPECIES**

32
33 **RICHARD APPELDOORN:** Yes, I want to move that one after that
34 one. All right, and so the second item is clarify the process
35 for calculating SYL and acceptable biological catch for stock
36 complexes with two indicator species.

37
38 The issue there apparently was some confusion, and I'm not sure
39 how that arose, but some confusion about whether, if we had two
40 indicators, whether we were summing all their data and then
41 calculating SYL and ABC or whether we were calculating SYL and
42 ABC separately for those indicators and then adding them.

43
44 I can tell you my understanding was that we were doing them by
45 indicator and then summing, and I thought that the discussion
46 that was cited here from the transcripts was confusing, because,
47 in the discussions that were cited, it was dealing with both
48 things that were lumped in a complex versus a multiple

1 indicator.

2
3 When everybody was talking about multiple indicators, they were
4 also talking about lumped, and I think that's where the
5 confusion arose. In the lumped ones, we do add everything,
6 because there are no indicators, but for where we do have
7 indicators, my understanding was indicators were assessed
8 individually and those ABCs and SYLs were summed. Do we need
9 discussion on that or do we just need to have a motion, because
10 it's one or the other.

11
12 **JOCELYN D'AMBROSIO:** I was looking at the Guidelines again, and
13 they do provide some just guidance as to how one might do
14 something like this, but they talk about, in two instances where
15 you have an indicator, that you could have -- Each indicator
16 would have status determination criteria and ACLs or each
17 indicator would have status determination criteria and
18 management objectives, and then you would find a way to have an
19 ACL for the complex as a whole.

20
21 When they are contemplating having status determination criteria
22 and other metrics, like for each indicator, that seems to
23 correspond with how Richard remembered the decision being made,
24 but this is, again, just guidance and just something to take
25 into consideration as you figure out which way you want to do
26 this.

27
28 **RICHARD APPELDOORN:** Well, I need a motion from somebody or some
29 discussion.

30
31 **JORGE GARCIA-SAIS:** Richard, I frankly never liked the idea of
32 the two indicators within those groups, and so now we face the
33 problem, and I don't really know what the difference of the two
34 strategies would be for each case in particular, and so I
35 frankly don't even know what the implications of having two
36 indicator species to make management decisions would be in one
37 of those groups.

38
39 When you sum and then divide by two or use the sum of the two,
40 essentially, you're going to one species. Then, essentially,
41 for all practical purposes, you are going back to -- It would be
42 one species. Then, in the case of having separate SYLs or ABCs,
43 then you defeat the purpose of having an indicator species in a
44 group, and you are essentially working with two different
45 groups, and so that is the problem that I had sort of
46 anticipated when this whole discussion started, and I never was
47 comfortable with the idea of the two indicators for a group.

48

1 I think, in fact, if I would have to vote, I would take the
2 first alternative and sum the two and treat it as one, because
3 it doesn't make sense to have two indicators, because then how
4 do you -- You have two indicators in the group and two ABCs and
5 everything, and so how do you relate the other species of the
6 group, to Indicator 1 or to Indicator 2? It doesn't really make
7 sense to me at all.

8
9 **RICHARD APPELDOORN:** That's why we added the results from the
10 separate indicators into an overall SYL and an overall ABC for
11 those two indicator species. Having two indicators actually
12 gives us somewhat of a buffer, in case one indicator might be
13 off, and you have another indicator to fall back on, and so I
14 think of it as replication.

15
16 The fact that we can do separate looks at two indicator species,
17 to me, is a plus, and why would we want to throw that away by
18 lumping the data first and then generating SYLs and ABCs?

19
20 **SARAH STEPHENSON:** This is a question from the Regional Office
21 here. Would you end up then with two SYLs and two ABCs?

22
23 **RICHARD APPELDOORN:** Initially, but then those would be summed
24 for the complex, but you're only looking at the data from the
25 indicators, and so, for the complex, you will have, in the end,
26 one SYL and one ABC, which would be the sum of the two
27 indicators.

28
29 **JOCELYN D'AMBROSIO:** That's the individual approach in the
30 briefing document, correct?

31
32 **RICHARD APPELDOORN:** Yes.

33
34 **JOCELYN D'AMBROSIO:** If it would be helpful, we can let you know
35 which complexes have two indicators and what those indicators
36 are.

37
38 **RICHARD APPELDOORN:** There aren't that many.

39
40 **JOCELYN D'AMBROSIO:** That's correct.

41
42 **SARAH STEPHENSON:** For St. Thomas, the Parrotfish 2 complex has
43 two indicators of redbtail and stoplight. Then, for St. Croix,
44 Parrotfish 2 has the same, redbtail and stoplight, as indicators,
45 and Snapper Unit 1 has blackfin and silk snapper as indicators,
46 and that's it.

47
48 **RICHARD APPELDOORN:** That's also for St. Croix?

1
2 **SARAH STEPHENSON:** Yes, St. Croix has Parrotfish Unit 2 and
3 Snapper Unit 1, and both of those complexes have the two
4 indicators. Parrotfish was redbait and stoplight, and snappers
5 was blackfin and silk. For St. Thomas, it was just the
6 Parrotfish 2.
7
8 **JOSEPH KIMMEL:** Rich, in the example that you gave, and I know
9 they're just fake species listed as an example, but either
10 approach -- They came out pretty much the same, both the SYL and
11 ABC, and so I don't really see the great big deal about choosing
12 an individual and summing versus just aggregating as you go
13 along. If the reported landings represent actual catch, I think
14 I would go with the aggregate. Otherwise, it doesn't make a
15 whole lot of difference.
16
17 **RICHARD APPELDOORN:** Well, guys, someone has to make a motion.
18
19 **GRACIELA GARCIA-MOLINER:** Here is the question that can be used
20 for the motion. Joe had said that (b) would be --
21
22 **RICHARD APPELDOORN:** I had said (b), but we can't move unless
23 someone makes a motion.
24
25 **KEVIN MCCARTHY:** My concern with either of these approaches is -
26 - Unless I am completely misunderstanding this, I can see a
27 scenario with either of these where let's say that the ABC with
28 one of them was -- We've got two species, and let's say the ABC
29 was 5,000 pounds for one of them and 6,000 pounds for the other.
30
31 Do we then up with -- One way or the other, do we end up with
32 11,000 pounds? I can envision a scenario where we could blow
33 right through the ABC of one of these and still not make 11,000
34 pounds, but we could be well above the 5,000 pounds and/or the
35 6,000 pounds, which is problematic for that -- We have
36 determined that that's problematic for that individual species,
37 and so this is my issue with these kinds of scenarios when we've
38 got two indicators, and I am kind of with Reni on this. I was
39 never a big fan of the two indicators, but perhaps I am
40 completely misunderstanding this, and, if so, if that scenario
41 is not a possibility, then please correct me on that.
42
43 **JOCELYN D'AMBROSIO:** I think it seems possible that you could
44 have an ABC set for an indicator. If you're doing the
45 individual approach, you have two ABCs for each indicator. If
46 you're monitoring the landings and you have species-specific
47 information, you could know that that ABC had been exceeded, and
48 then you might need to rethink how you want to manage the

1 complex if it's no longer protective for that species or if it's
2 no longer protective for the complex.

3
4 Those, I think, would be questions to consider when thinking
5 about if you want to manage with two indicators. Then, if you
6 do, going forward, how are you going to address it if that
7 scenario happens?

8
9 I think it would be appropriate if you wanted to reconsider
10 these specific examples, whether you know that they're targeted
11 together or caught together, if you think that it's appropriate
12 to manage it or to recommend metrics in this way, but, yes, if
13 that happens, then I think you would have to -- The Guidelines
14 contemplate considering and rethinking if the complex is drawn
15 correctly, if the indicators are correct, and if you're being
16 sufficiently protective of the species while meeting the
17 National Standard Guidelines and the goals of preventing
18 overfishing while allowing the harvest.

19
20 **RICHARD APPELDOORN:** Okay, and so maybe it's my fault here for
21 not being a little bit more explicit on this, but my
22 understanding in my argument was that if one of those indicators
23 goes over that you do close down that species, but you don't
24 close down the complex until both go over, or the total sum is
25 gone over, I should say, and so, if we just had one indicator
26 and we went over that, we would close down the complex. If you
27 have two, to give you some flexibility that when one goes over
28 that the complex as a whole can stay open until the sum ABC gets
29 exceeded, or ACL, eventually.

30
31 **JOCELYN D'AMBROSIO:** I think this would depend on how the
32 council sets ACLs, and so, if they have an ACL for the complex
33 as a whole, then it would be managed when that ACL is exceeded,
34 and so, if that ACL for the complex as a whole was based on, in
35 Kevin's example, the 11,000-pound ABC, then the AMs wouldn't
36 kick in until they are triggered under the rules, which is based
37 on that complex ACL.

38
39 **RICHARD APPELDOORN:** So, if we have separate species, we give
40 them that flexibility. If we pool them, we don't give them that
41 flexibility.

42
43 **JOCELYN D'AMBROSIO:** I think it depends on if they have separate
44 ACLs for each of the indicator species, which the Guidelines
45 contemplate. They said that the indicator could have its own
46 ACL, or you could have an ACL for the complex as a whole.

47
48 I think right now what the council is contemplating is having an

1 ACL for the complex as a whole, which would mean you would have
2 that information in the background, but then you might want to
3 rethink what you recommend to the council for how they manage
4 it, if the complex should be split up, for example, or if there
5 should just be one indicator, but that would be another decision
6 that would need to be made if the council chooses to have one
7 ACL. Again, right now, the council is contemplating having that
8 complex. It's a complex ACL that would be based on whatever
9 that aggregate ABC is.

10
11 **KEVIN MCCARTHY:** So, going back to my scenario of the 5,000
12 pounds or 6,000 pounds per indicator, are we -- I could also see
13 the recommendation, which I think Rich was getting at a moment
14 ago, is let's say we hit 5,000 pounds for the first indicator
15 species. That does not necessarily shut down the group. That
16 just shuts down fishing or retaining that indicator Species 1.

17
18 **RICHARD APPELDOORN:** Correct.

19
20 **KEVIN MCCARTHY:** Then, once you hit 6,000 pounds with Indicator
21 Species 2, that not only closes that down, but the whole group.

22
23 **RICHARD APPELDOORN:** That would be correct.

24
25 **KEVIN MCCARTHY:** Okay. I can certainly live with that scenario,
26 which, now that I have talked my way back through all of this,
27 we're left with the original question, but I agree with you that
28 we need to treat these separately, and so I guess is that
29 Scenario 2 here, having both of these and then summing them for
30 the group?

31
32 **RICHARD APPELDOORN:** Go ahead, Walter.

33
34 **WALTER KEITHLY:** Thank you. The whole reason that we took on
35 these indicator species and so forth, as I recall at least, is
36 that we're working with a complex, and there is joint catches
37 any time a fisherman goes out and that he cannot say that I'm
38 only going to catch this species.

39
40 We have a situation where the fishermen have limited abilities
41 to target a given fish, and so we said that the -- It was my
42 understanding that the whole complex would be shut down when
43 that indicator species is reached.

44
45 **RICHARD APPELDOORN:** That's the case when we have one indicator.
46 Then that would be the case.

47
48 **JOCELYN D'AMBROSIO:** Right now, what Bill was saying is because

1 the council contemplates the ACL for the complex, if that ACL
2 for the complex is based on the sum of the ABCs for each
3 indicator and then it's buffered with management uncertainty to
4 the ACL, you will have that higher -- In the example Kevin was
5 giving, if you have 5,000 and 6,000 to 11,000, whatever they
6 buffer from the 11,000, the ABC to the ACL, the AMs are keyed to
7 that ACL for the complex.

8
9 Unless the council does something to have ACLs for the
10 indicators and does something else for the complex management,
11 which they are not contemplating right now, you could have a
12 scenario where the ABC for one is exceeded, but there is
13 continuing fishing.

14
15 **WALTER KEITHLY:** This is what bothers me, is that from what I
16 just heard from what Kevin was saying, it's that we do continue
17 to allow fishing for each individual species even after one
18 indicator species has reached its limit, the ABC. It seems to
19 me that -- Again, I would just take the simplest approach. When
20 an indicator is reached, whichever way to develop it which is
21 the simplest, and then just close down that fishery, that
22 complex.

23
24 **RICHARD APPELDOORN:** I think your first assumption that your
25 ability to target is limited is not exactly correct. I think,
26 in most cases, our indicators are the ones that are in fact
27 dominating the catch, and the other things in the complex are
28 the ones that you don't have much control of targeting. If it
29 was the other way, if you exceeded one, you are almost
30 guaranteed to exceed the other one, if they're really that
31 tight.

32
33 **WALTER KEITHLY:** Just to try to make things go a little bit, I
34 will just recommend the Option (a) there of sum the annual
35 landings of the indicator species and calculate a single SYL and
36 ABC, and I don't have a good rationale, because the whole
37 process is very subjective to begin with, but I will make that
38 motion.

39
40 **DOUGLAS GREGORY:** The only concern I have is a bureaucratic one,
41 and the Guidelines anticipate a single indicator species.
42 Having two obvious indicator species could be confusing to them,
43 but, other than that, I don't have a preference one way or the
44 other.

45
46 **JOCELYN D'AMBROSIO:** The Guidelines do -- In the regulations,
47 they say that you can have one or more indicators, but then they
48 note that there is two options for management, either an ACL for

1 each indicator or an ACL for the complex as a whole, and, right
2 now, what we've been saying in this discussion is that the
3 council is contemplating an ACL for the complex as a whole,
4 which could raise some of the questions that we have been
5 discussing here.

6
7 **JOSEPH KIMMEL:** By the way, I will second Walter's motion.

8
9 **JOCELYN D'AMBROSIO:** You could also think again about if you
10 want to have these two indicators, as we discuss this.

11
12 **RICHARD APPELDOORN:** Jocelyn, given the way the question was
13 put, we have a motion made for basically Option (a). Would
14 defeating Option (a) automatically mean that Option (b) was
15 adopted, or do we have to have a second motion and vote?

16
17 **JOCELYN D'AMBROSIO:** I think it would be better to have a second
18 motion and vote and to have the rationale for why that was
19 chosen.

20
21 **RICHARD APPELDOORN:** Okay.

22
23 **DOUGLAS GREGORY:** I've just got a basic question, since I'm so
24 new at this, and I hate to slow things down, but how many other
25 species are in these groups, and, if by summing the SYL and ABC
26 of these two species, is that enough to cover the other species,
27 or are the other species so minor in landings that it's almost
28 like random variability, because we're dealing with two species,
29 and, if there could be five total species in a group, because,
30 at first, I thought the scalar was taking care of that, but I
31 read down here that the scalar is the susceptibility score and
32 the VAF, which is a function of coefficient of variation, which
33 I don't fully understand three minus CV divided by three, and so
34 the scalar has nothing to do with the number of species in the
35 group?

36
37 **SARAH STEPHENSON:** To answer your question, both of the
38 parrotfish complexes have seven species in them, and each of
39 those have the two indicators, the redbtail and stoplight, and
40 then the snapper unit has four species in it, which the two, the
41 blackfin and the silk, were chosen.

42
43 **DOUGLAS GREGORY:** Okay, and we don't have their total landings?
44 I understand Kevin's concern, where you have an ABC that you can
45 calculate with a single stock, and I agree with Richard's
46 response to that. That would be a good way to go if the system
47 lets us do that, you know treat an indicator separate than the
48 complex as a whole, and I assume that -- Let's say an ABC of

1 24,000 pounds appears adequate to cover the complex, or, if it's
2 not, the complex could close prematurely, and I'm just asking
3 questions at this point, and I don't have a hard opinion. I
4 think, intrinsically, I agree with the motion. I will catch up
5 in a year.
6
7 **RICHARD APPELDOORN:** Can we go to a vote? Hearing no opposition
8 to that, Walter.
9
10 **WALTER KEITHLY:** Yes.
11
12 **RICHARD APPELDOORN:** Remember this is to sum the landings of the
13 indicator species first and then calculate the SYL and ABC. So
14 you're still yes, right?
15
16 **WALTER KEITHLY:** Yes.
17
18 **JOSEPH KIMMEL:** This is the aggregate approach, right?
19
20 **RICHARD APPELDOORN:** Correct.
21
22 **JOSEPH KIMMEL:** Yes.
23
24 **JORGE GARCIA-SAIS:** Yes.
25
26 **KEVIN MCCARTHY:** I don't really like either one of them, and so
27 I think I'm going to vote no.
28
29 **DOUGLAS GREGORY:** Yes.
30
31 **RICHARD APPELDOORN:** I am no. **It's going to carry four to two.**
32 We need a rationale. Walter stated that there is no good
33 rationale can't stand by itself, but you did have a "but" to it,
34 and I didn't catch it.
35
36 **WALTER KEITHLY:** No, I basically said that I don't have a good
37 rationale for it. It's very subjective, and with the very
38 little information we have in the example --
39
40 **RICHARD APPELDOORN:** This is the simplest approach.
41
42 **WALTER KEITHLY:** Yes, and, well, that's the reason I picked it.
43 Okay. If you want a rationale being that it is the easier of
44 the two approaches, that would be my rationale.
45
46 **RICHARD APPELDOORN:** Are others thinking along the same line, or
47 do you have something else to add?
48

1 **JORGE GARCIA-SAIS:** Richard, in some ways, I see the aggregate
2 approach as providing some kind of a buffer, since these species
3 are -- They are fished together, but if there was an instance
4 where you have a big aggregation of either of the two indicators
5 and you are consistently -- In a very good recruitment year, you
6 have very high landings of one species, maybe the other species
7 that is not undergoing that kind of behavior can in some ways be
8 the yield a little bit of the exceptionally high catches of one
9 species, and that's the only thing that I can see that makes
10 sense to me to work with two species, with two indicator
11 species, instead of one, because, as I told you in the
12 beginning, I was opposed to the whole thing from the start, but
13 I do see that maybe there is some kind of a buffering effect of
14 one species with the other, in terms of the management. That's
15 as far as I get.

16
17 **RICHARD APPELDOORN:** Well, if they were to target one of those
18 species, they could presumably overexploit that one species,
19 presuming they can target, the way we've set it up. If they
20 were hitting let's say redbait, they would also be catching
21 stoplight.

22
23 **JORGE GARCIA-SAIS:** Right, yes, but not at the same rate. Maybe
24 not with the same efficiency or not with the same -- Not with
25 the same densities or catch per unit effort. There might be a
26 species that is exceptionally high in abundance in a given
27 period, in a given time, and maybe the other could buffer a
28 little bit that kind of extremely high catches.

29
30 **RICHARD APPELDOORN:** By buffering, you mean allow the fishermen
31 to continue fishing?

32
33 **JORGE GARCIA-SAIS:** Correct.

34
35 **RICHARD APPELDOORN:** Not save the species. Okay.

36
37 **JORGE GARCIA-SAIS:** Well, avoiding to exceed ACLs.

38
39 **RICHARD APPELDOORN:** Okay, and so it provides a buffer.

40
41 **JORGE GARCIA-SAIS:** I am saying, in other words, it will be more
42 difficult to create an overage with the two species than with
43 one, in my view.

44
45 **RICHARD APPELDOORN:** Yes, I think that's correct. Whether
46 that's desirable or not is another story, but I think you have -
47 - The motion passed, and so that's what we're going with.

48

1 **JORGE GARCIA-SAIS:** Okay.
2
3 **FINALIZE INDICATOR SPECIES SELECTION FOR SNAPPER UNIT 3 IN ST.**
4 **CROIX, GROUPER UNIT 5 IN ST. CROIX, AND GROUPER UNIT 4 IN ST.**
5 **THOMAS/ST. JOHN**
6
7 **RICHARD APPELDOORN:** The next item on the agenda is Finalize
8 Indicator Species Selection for Snapper Unit 3 in St. Croix,
9 Grouper Unit 5 in St. Croix, and Grouper Unit 4 in St.
10 Thomas/St. John, which was really kind of filling in the table.
11 What are the current -- Do we have no indicators or they're just
12 not clear? Do you have that information, Graciela?
13
14 **GRACIELA GARCIA-MOLINER:** Can you repeat that?
15
16 **RICHARD APPELDOORN:** Snapper Unit 3 in St. Croix.
17
18 **GRACIELA GARCIA-MOLINER:** We left it blank.
19
20 **KEVIN MCCARTHY:** Is this a question that we just failed to
21 completely fill out the spreadsheet that Graciela had been
22 working through?
23
24 **RICHARD APPELDOORN:** That's how I interpreted it.
25
26 **JOCELYN D'AMBROSIO:** Yes.
27
28 **RICHARD APPELDOORN:** So what are the --
29
30 **GRACIELA GARCIA-MOLINER:** I don't have anything in here, and so
31 that's why I was wondering if --
32
33 **KEVIN MCCARTHY:** In the briefing document, I am seeing species
34 listed in parentheses, and are these the ones that were
35 recommended to the best of our recollection, or how did these
36 end up in the briefing document, the lane snapper, the yellowfin
37 grouper, and another yellowfin grouper?
38
39 **GRACIELA GARCIA-MOLINER:** I think that the idea here is that we
40 don't have this information that it's as clearly outlined as it
41 was for all the other ones, for lane snapper specifically, and
42 so we had that document, that Excel file, that we had been
43 filling out and answering each of these questions, and so, for
44 lane snapper, what was the percentage of the catch, whether it's
45 targeted or not, and so it's not complete in the record.
46
47 **RICHARD APPELDOORN:** I think, for yellowfin, it came down to
48 that was the species for which there was data.

1
2 **JOCELYN D'AMBROSIO:** I think in some instances we wanted to
3 confirm that this was a choice that was made, just going back
4 over the records to make sure that it was written down that it
5 was an actual decision, because, as you had noted at the last
6 meeting, sometimes it was difficult to go back through and
7 confirm that something had actually been decided, and so part of
8 it is confirming, but then also getting the rationale for the
9 reason as to why.

10
11 **RICHARD APPELDOORN:** You had an asterisk by the species, but you
12 just didn't fill out the table, correct?

13
14 **GRACIELA GARCIA-MOLINER:** Exactly.

15
16 **RICHARD APPELDOORN:** So who is with lane? What is the other
17 species with lane?

18
19 **GRACIELA GARCIA-MOLINER:** It's lane and gray.

20
21 **RICHARD APPELDOORN:** Kevin, do you have your data handy?

22
23 **KEVIN MCCARTHY:** Not entirely, but I can look it up. Give me a
24 few minutes.

25
26 **RICHARD APPELDOORN:** I think, in the case of the snapper, lane
27 dominates the catch.

28
29 **JOCELYN D'AMBROSIO:** Obviously, you are selecting an indicator
30 and then basing -- Ultimately, management for the complex will
31 be based off that indicator, and so the guidelines do speak
32 about evaluating the vulnerability and take about indicators
33 being typical vulnerability and then noting that there is --
34 When you put together the complex, if there is wide-ranging
35 vulnerabilities, trying to group the similar vulnerabilities
36 together and then, in terms of if you can't find one that's
37 typical of the vulnerable, then you might select one that's more
38 vulnerable and adjust management measures, noting that you have
39 been a little more conservative, and so, just keeping that in
40 mind, obviously there are a lot of those factors that you guys
41 had listed as you were picking the indicator, but one of the
42 options here too would be to say, okay, well, we're looking at
43 those criteria, and, if it doesn't fit, perhaps you could
44 consider whether it's appropriate to have an indicator or if you
45 just want to manage the complex in the way you do others that
46 don't have indicators.

47
48 **GRACIELA GARCIA-MOLINER:** Lane was the only one on the form.

1
2 **RICHARD APPELDOORN:** Well, that's why it's the indicator, and
3 so, if you didn't hear that, Graciela said that lane snapper is
4 the only one on the form.
5
6 **GRACIELA GARCIA-MOLINER:** It was, up until --
7
8 **RICHARD APPELDOORN:** Well, until recently.
9
10 **KEVIN MCCARTHY:** Well, the landings that I'm seeing tell a
11 different story, and so St. Croix Snapper Unit 3, which is gray
12 and lane, correct?
13
14 **RICHARD APPELDOORN:** Correct.
15
16 **KEVIN MCCARTHY:** I am seeing ten times as many landings for gray
17 than for lane, and so 700 versus 7,000, and 300 versus 6,500,
18 500 versus 4,700, and so it's even more than that, in some
19 cases. It's 300 versus 3,900, and all of the higher numbers are
20 gray, and so let me check the forms to confirm Graciela's
21 suspicion. Otherwise, there are a heck of a lot of write-ins.
22
23 **GRACIELA GARCIA-MOLINER:** Well, let me read from the DAPs
24 meeting, and the DAPs suggested that gray really is the species
25 that is landed in St. Croix, even if it's not in the form,
26 because usually there is not much lane in St. Croix, and so the
27 lane snapper is the one that was on the form, but are the
28 landings that you're reading off in the very recent years?
29
30 **KEVIN MCCARTHY:** From 2011, and so that would be from July of
31 2011 to 2016. I am looking at the St. Croix landings form that
32 began in July of 2011, and I am seeing lane, and I am not seeing
33 gray, and so that part is true, and now there is gray snapper
34 under the section of scuba or free diving. There is gray
35 snapper in there, but, under hook-and-line, there is lane
36 snapper, and then there is lane snapper under traps, and I don't
37 see gray snapper under traps, and so they're both on the forms,
38 but they are just listed under different gears, and, of course,
39 they can write-in -- I mean, it's tough to make decisions like
40 this based on write-ins, but it was on the form for diving, for
41 spear or by hand, scuba free diving, the gray I mean. They are
42 both on the forms with different gears, and the landings are
43 much higher for gray than for lane in St. Croix.
44
45 **JORGE GARCIA-SAIS:** Kevin, you know that's really curious. In
46 fact, I am almost sure that, if you look at the data for Puerto
47 Rico, you would probably see exactly the opposite, lane snapper
48 being orders of magnitude or more higher in abundance than gray.

1 Actually, the gray snapper used to be called the mangrove
2 snapper, and it's not a fish that is -- At least in Puerto Rico,
3 all the habitats that I have seen common in the reef habitat,
4 and, actually, where it's only really vulnerable to being fished
5 in those amounts, in big amounts, are probably by netting in the
6 mangrove channels and things like that.

7
8 For me, I think that I believe that, unless there is a very huge
9 shallow mangrove habitat in St. Croix that fishermen are taking
10 these fish in high amounts, perhaps using nets, and I don't see
11 how that data comes together, because the mangrove snappers are
12 typically not -- They don't go very much into a fish trap, nor
13 do they bite as the lane snapper does with hook-and-line, and
14 then spearfishing one-by-one of mangrove snappers is a long way
15 to go. It's not a fish that reaches five or six or ten pounds
16 easily. It's a fish that is more common in the 0.75 to one
17 pound, which doesn't make it a really nice target for
18 spearfishing.

19
20 **JOSEPH KIMMEL:** Reni, remember that a lot of the fishermen in
21 St. Croix, or at least they used to, and I think there is still
22 a few of them that still do it, they deploy their gillnets using
23 scuba, or their nets. I don't know if they are gillnets or what
24 technically the nets are, and so, even though it's listed as
25 scuba, that doesn't mean it's spear. It could be net.

26
27 **JORGE GARCIA-SAIS:** Joe, I know you know what I am talking
28 about. Probably that's the only way that this data makes sense
29 to me, is if they do netting using scuba. I don't know. I have
30 never seen this, but I can think that there is a possibility
31 that they arrive at those numbers by doing that, but not
32 actually going from hook-and-line fishing or scuba diving for
33 them in those amounts, and it's very, very unreasonable for me.

34
35 **KEVIN MCCARTHY:** Well, these are the data as we have them, and,
36 again, we're going from a little under 4,000 pounds to 7,700
37 pounds as the high year over the full years of 2012 to 2016.
38 Well, actually, if we include 2016, we've got about 1,600
39 pounds, but that 2016 data that I'm looking at may have been
40 incomplete at the time, but, regardless, what I am hearing sort
41 of begs the question as to whether or not either one of these is
42 a good indicator for the other.

43
44 If they're fishing on them in different places and using
45 completely different gears to catch them, whether they're
46 spearing them or netting them or whatever they are doing, versus
47 hook-and-line and trap, are we using an apple indicator for an
48 orange group?

1
2 **JORGE GARCIA-SAIS:** In my opinion, they are different. They
3 should have never been put together, and I believe this decision
4 was actually taken very much in consultation with the St. Thomas
5 or St. Croix fishermen.
6

7 **JOSEPH KIMMEL:** Reni, lane snapper is sort of a sort bottom
8 inhabitant, just above the bottom there, and it doesn't frequent
9 the reefs nearly as much as the gray snapper, or the mangrove
10 forest or the grass beds. The lane snapper is in a sort of
11 sandy, muddy bottom, and so I don't know that they should be
12 grouped together at all either.
13

14 **JOCELYN D'AMBROSIO:** Again, just going back to the guidelines
15 and the focus on vulnerability, if it's helpful, we can try to
16 pull up some of the information on the susceptibility scores and
17 the productivity scores for these species as well as the others
18 in the complexes, if that's helpful to sort of go back to that
19 question of what would be an appropriate indicator, given the
20 way the complex has been set up.
21

22 **KEVIN MCCARTHY:** Well, there's only two species in this complex,
23 and I am hearing that they are in very different habitats, at
24 least in St. Croix.
25

26 **JOCELYN D'AMBROSIO:** Okay, and so then the question could be if
27 you wanted to manage the complex without an indicator.
28

29 **RICHARD APPELDOORN:** Well, the discussion is kind of we either
30 do that or we split them into their own separate complexes. I
31 am trying to find what the St. Croix DAP recommended, but I
32 think the recommendation was made when the group was much
33 larger. We had split snappers into more groups subsequently.
34

35 **BILL ARNOLD:** Remember why you grouped these things, because
36 then the individual landings may be too low to effectively
37 track. I mean, you went to a lot of effort to group these
38 things, and I would be careful about suddenly changing your
39 mind.
40

41 **WALTER KEITHLY:** I thought -- Again, I am just reading the
42 briefing book here, and it's stated that the reason that we
43 grouped them, if I am not mistaken, is that it said that it was
44 because gray snapper was not on the 2011 form. At the July 2017
45 SSC meeting, lane was suggested as the indicator species,
46 because gray snapper was not on the 2011 form.
47

48 **KEVIN MCCARTHY:** Well, apparently -- If I said that, I was in

1 error at the time, because I am seeing it under diving, and it's
2 listed as mangrove (gray).

3

4 **WALTER KEITHLY:** It does not say who said it.

5

6 **KEVIN MCCARTHY:** I will take the blame. I'm all right with
7 that, but, to clarify now, the St. Croix form that began use in
8 2011 has, under spear or by hand, which is the diving category,
9 scuba or free diving, has mangrove/gray snapper listed. Under
10 nets, there are no snappers of any kind. Under traps, there are
11 a number of snappers, but none of them -- Gray is not among
12 them, and lane is, and, for hook-and-line, again, we have lane,
13 but not gray.

14

15 **WALTER KEITHLY:** Kevin, could you just go over the average of
16 the two species again, average landings? Was it 4,000 to 7,700,
17 you said?

18

19 **KEVIN MCCARTHY:** 4,000 to 7,700 for gray and then 300 to about
20 800 for the lane.

21

22 **WALTER KEITHLY:** Again, just given the size of the two, it
23 certainly indicates that gray should be the indicator species.
24 The rationale simply could be that it's much larger.

25

26 **RICHARD APPELDOORN:** We don't need to have an indicator species.
27 We could just deal with them lumped.

28

29 **WALTER KEITHLY:** That's not what is on the agenda. The agenda
30 is to discuss the rationale for why we picked these, if I'm not
31 mistaken.

32

33 **JOCELYN D'AMBROSIO:** It does say to finalize the indicator
34 selection, and it suggests that -- It discusses the indicator
35 and then lists it, and then we've provided what the discussion
36 was, and so I think, in terms of finalizing it, if there's a
37 different outcome, that would be within the scope of what's
38 here.

39

40 **WALTER KEITHLY:** Okay. Well, if we are allowed the second
41 option then to break them out -- From what I've heard at least,
42 the two species are caught separately, and I would suggest just
43 breaking them out and not have an indicator species.

44

45 **JOCELYN D'AMBROSIO:** I think what Richard was suggesting was
46 keeping them together and maybe not having an indicator, and so
47 that's an option as well, and Bill was mentioning the reason why
48 they were grouped together as a complex, just given the low

1 landings, and I don't know that I was part of those discussions.
2
3 **WALTER KEITHLY:** I will make a motion that we have no indicator
4 species for the gray and lane snapper in St. Croix.
5
6 **RICHARD APPELDOORN:** As a follow-up to what Graciela said in the
7 -- When was that meeting?
8
9 **GRACIELA GARCIA-MOLINER:** March of 2016 and then July of 2017.
10
11 **RICHARD APPELDOORN:** This is March of 2016, but the DAP from St.
12 Croix was recommending a gray/lane complex, and they were
13 recommending the gray as the indicator. We recommended
14 lane/gray, which I have, at this point, no idea whether that
15 meant that that was going to be the complex, and I think that's
16 how I'm interpreting it, but we did not, at that time, think
17 about an indicator, but the DAP had recommended that at that
18 time. I am certainly good with lumping. In fact, I would
19 rather lump than make the gray the indicator.
20
21 **JORGE GARCIA-SAIS:** I would go with that, too.
22
23 **RICHARD APPELDOORN:** We need a motion.
24
25 **JOSEPH KIMMEL:** I second Walter's motion.
26
27 **RICHARD APPELDOORN:** What was Walter's motion?
28
29 **JOSEPH KIMMEL:** The SSC moves not to have an indicator species
30 for SU 3.
31
32 **WALTER KEITHLY:** Thank you, Joe.
33
34 **RICHARD APPELDOORN:** Any further discussion?
35
36 **JOSEPH KIMMEL:** I have a couple of points that I will bring up
37 that I like anyway, and that is the reported landings for these
38 things, up until what I heard from Kevin were in the hundreds of
39 pounds and not any thousands of pounds, and the U.S. Virgin
40 Islands seasonal closure and bag limit have been in place since
41 2010, and so there is some protection that is already in place.
42 Very few fisheries really target them. I mean, maybe there is
43 some targeting in lane snapper, but it's not a great amount of
44 catch, and so, again, I wonder, like I did with the jacks, is
45 federal management necessary.
46
47 Gray snappers live primarily in the mangroves and grass beds in
48 St. Croix. If you go out on the shelf edge and look around, you

1 don't see many gray snappers out there at all, if any, and I've
2 never heard of anybody catching one out there, and so I suggest
3 that, in the future, when we bring this up on the agenda, that
4 we might consider removing these two species for management for
5 that island group. That's just my comment, and I vote yes on
6 the motion, by the way.
7
8 **RICHARD APPELDOORN:** Okay, and so we're starting the vote then.
9 Kimmel is yes.
10
11 **WALTER KEITHLY:** Yes.
12
13 **JORGE GARCIA-SAIS:** Yes.
14
15 **KEVIN MCCARTHY:** Yes.
16
17 **RICHARD APPELDOORN:** I'm a yes. Doug, are you there?
18
19 **JOCELYN D'AMBROSIO:** I was just wondering, is Tyler on the
20 phone? He's on the Go to Meeting.
21
22 **TYLER SMITH:** Yes, I'm here. I guess I'm still on the SSC, and
23 so I vote yes.
24
25 **RICHARD APPELDOORN:** Have you been following the discussion?
26
27 **TYLER SMITH:** Yes.
28
29 **RICHARD APPELDOORN:** Do you have a vote?
30
31 **GRACIELA GARCIA-MOLINER:** He said yes.
32
33 **TYLER SMITH:** I vote yes.
34
35 **RICHARD APPELDOORN:** We're missing Doug. We can have him as a
36 note present.
37
38 **DOUGLAS GREGORY:** This is Doug. I had my microphone off.
39 Sorry. I vote yes.
40
41 **RICHARD APPELDOORN:** All right. **It's unanimous.** All right.
42 The rationale, to repeat, as I understood it, first of all was,
43 although gray dominates the catch, the two species are not
44 really targeted in the same areas or with the same gears. Does
45 that sort of capture what everybody was saying?
46
47 **WALTER KEITHLY:** Yes, I think that's good, Richard.
48

1 **RICHARD APPELDOORN:** Okay. All right. Let's talk about
2 yellowfin grouper, first in St. Croix. The other species in
3 this complex are --
4
5 **KEVIN MCCARTHY:** Is it red and tiger?
6
7 **RICHARD APPELDOORN:** Yes, red, tiger, and black, yellowedge.
8
9 **GRACIELA GARCIA-MOLINER:** In St. Croix?
10
11 **RICHARD APPELDOORN:** Yes.
12
13 **GRACIELA GARCIA-MOLINER:** It's black, red, tiger, yellowfin.
14
15 **KEVIN MCCARTHY:** Okay, and so the three species -- I only see
16 landings for three of those species, and I've got red, tiger,
17 and yellowfin. Red doesn't show up until eighty pounds in 2016,
18 and so I'll check what was on the forms in a second. Tiger only
19 has two years of landings, 2012 with 100 pounds and 2016 with
20 131 pounds, and so yellowfin is the only one that has
21 consistently got landings, but it doesn't have a heck of a lot,
22 and so it's anywhere from seventy-seven pounds to 1,600 pounds
23 in any given year, and so, looking at the forms, and we are
24 still talking about St. Croix, yes?
25
26 **GRACIELA GARCIA-MOLINER:** Yes.
27
28 **KEVIN MCCARTHY:** The groupers, we've got tiger on the form for
29 hook-and-line in St. Croix, and yellowfin on the form in St.
30 Croix for diving, and so spear or by hand. Let me check the
31 latest forms, although we're not going to use that year -- Well,
32 we are using 2016, right? Those are our years of interest, 2012
33 to 2016?
34
35 **RICHARD APPELDOORN:** Yes.
36
37 **KEVIN MCCARTHY:** We now have black, and we have red, and we have
38 tiger and we have yellowfin, and what was the other one?
39
40 **RICHARD APPELDOORN:** That was it.
41
42 **KEVIN MCCARTHY:** Okay, and so they're all on the form now,
43 beginning July of 2016.
44
45 **RICHARD APPELDOORN:** But they're not for the previous years?
46
47 **KEVIN MCCARTHY:** Correct. The only two in the previous years
48 are yellowfin for diving and also hook-and-line, and, on hook-

1 and-line, we have tiger.
2
3 **TYLER SMITH:** I would just interject that in thirteen years I
4 have never seen a red grouper on St. Croix.
5
6 **RICHARD APPELDOORN:** They are deep. I would hope you would not
7 see them, because even with trimix you would be in really deep
8 water.
9
10 **TYLER SMITH:** Really? I thought they were a shallower species.
11
12 **RICHARD APPELDOORN:** Well, the ones in Puerto Rico are all deep
13 that I've seen. Well, the one that I've seen.
14
15 **GRACIELA GARCIA-MOLINER:** Red grouper in St. Thomas is over on
16 the deeper side of the sandy channels of St. John.
17
18 **KEVIN MCCARTHY:** Well, they're certainly not showing up much.
19 There is only eighty pounds in the landings.
20
21 **JORGE GARCIA-SAIS:** Graciela, when you say deep, how deep? What
22 deep channels? What is the depth?
23
24 **GRACIELA GARCIA-MOLINER:** When I think it was Claude Berry who
25 brought them to the council, he said that he had been harvesting
26 them off of St. John, probably beyond the three-nautical-mile
27 limit, in very large, sandy areas, or muddy areas, and probably
28 deeper than sixty meters.
29
30 **JORGE GARCIA-SAIS:** Okay.
31
32 **RICHARD APPELDOORN:** That's about the range of the one that I
33 saw off of Tourmaline.
34
35 **JORGE GARCIA-SAIS:** Well, anyway, there is just a couple of
36 fish.
37
38 **RICHARD APPELDOORN:** Well, so here's the conundrum. Yellowfin
39 is the only one that we really have data for, and even though
40 it's not a lot of data in terms of pounds, but all of these
41 groups are on here because of their vulnerability and not
42 because of the levels of harvest.
43
44 Almost all of the catch is, or was, when they were taken from
45 aggregations, and most of those are protected now, either by
46 closed season or by closed area, and so, if you make yellowfin,
47 for example, your indicator, it allows you to go fish out black,
48 red, and tiger if the aggregations were known and not protected.

1 The way to kind of get around that would be to not have an
2 indicator and have them all as a group, because the landings
3 that we would be using would be low.

4
5 The problem is that we actually don't have landings on black and
6 red other than 2016, and so applying a year sequence would leave
7 out some of that, and that may be good, from a conservation
8 point of view, because we would end up just with a lower overall
9 group total weight, but it would allow people the flexibility to
10 at least catch some of these species, and I don't think the
11 total weight landed would be -- The ACL that would come out of
12 that total wouldn't be large enough to actually threaten
13 aggregations, and so my feeling would be actually to not have an
14 indicator for these, despite the fact that we don't really have
15 data for red and black for most of the years to put into that
16 lumped total for the complex.

17
18 **JORGE GARCIA-SAIS:** I would go with that.

19
20 **JOSEPH KIMMEL:** I will make the motion that we not select an
21 indicator for Grouper Unit 5 in St. Croix, but instead use the
22 group aggregate approach.

23
24 **RICHARD APPELDOORN:** Is there a second?

25
26 **WALTER KEITHLY:** Just so I understand this, basically, since
27 there are so few landings of other groupers, basically the group
28 aggregate approach would still give you the same result as using
29 yellowfin as the indicator species, correct?

30
31 **RICHARD APPELDOORN:** More or less, yes, but it would then offer
32 protection to the other species.

33
34 **JORGE GARCIA-SAIS:** Maybe there is a problem with that, because
35 if the red grouper -- If it is an underdeveloped species or if
36 there is any reason to believe that that might be a developing
37 fishery in the near future, then we would be curtailing or
38 limiting the development of that fishery because of this
39 aggregate approach. When I said that I would go with that, I
40 meant that we would go with the no indicator species approach,
41 in the sense that then each would perhaps have an ABC on each
42 one and not on an aggregate, and so those two, for me, are not
43 the same.

44
45 **KEVIN MCCARTHY:** Well, if you go that direction, and I am not
46 suggesting we do, and, in fact, I am more -- Looking at the
47 landings here, you've got reported landings from three of your
48 five species. You have got yellowfin consistently, but low, and

1 you've got red and tiger also low and very rarely reported. Red
2 grouper was reported once, but, again, it wasn't on the form,
3 and so tiger was on the form, and it's reported in two different
4 years.

5
6 If there is in fact this developing fishery, and now that red is
7 on the form, one would expect to see some consistent reporting
8 of red if it is in fact a developing fishery, but, right now, if
9 you were to treat them separately, you've got essentially no
10 landings of red, and almost no landings of tiger, and so I don't
11 know what you would do with that, other than there is potential
12 for reporting in the future now that things are on the forms.

13
14 **DOUGLAS GREGORY:** Understanding that I am not familiar with the
15 background, but in listening to the conversation, would it be
16 feasible to just have yellowfin alone as an ABC, calculate the
17 ACL, and then treat the others as an aggregate, or would it
18 still be such sporadic landings that you couldn't treat them
19 separately as an aggregate?

20
21 **KEVIN MCCARTHY:** The other species, which in this case we've
22 only got landings for red and tiger, would be 310 pounds, 311
23 pounds, over the course of the entire period of 2011 through
24 2016, and so there's not a heck of a lot to go on there.

25
26 You know, whether you just look at yellowfin as an indicator or
27 you roll them all up and do an aggregate, you're going to come
28 up with essentially the same number, and it's not going to be a
29 big one.

30
31 **WALTER KEITHLY:** That's the point I was raising earlier, and,
32 given that to be the case, I will second Joe's motion that we
33 just aggregate them.

34
35 **DOUGLAS GREGORY:** I just want to point out that Kevin said the
36 same thing in July, that, regardless of which way you went, you
37 got basically the same answer relative to what the ACL would be,
38 but the SSC concluded to use yellowfin as an indicator at the
39 previous meeting, and so I think there needs to be some
40 rationale as to why we're changing our minds.

41
42 **RICHARD APPELDOORN:** The rationale, to me, is that, if you have
43 yellowfin as the indicator, the number is the same, but it's
44 only when yellowfin hits that number, which allows you to, if
45 you wanted to, exploit all the other species, and, as I said,
46 most of the fishing that comes out is either going to be a
47 random hit or someone has found the aggregation, and what we
48 want to avoid is people hitting the aggregation.

1
2 If you have the number across all species, then, if yellowfin is
3 still dominating and you hit that, or it's still dominating, it
4 allows you to take only a little bit out of those other species,
5 therefore affording them protection, and so, if you use the
6 yellowfin as the indicator, unless you close yellowfin, which
7 then closes the group, you're allowing everything else to be
8 potentially exploited, to a large degree, without us really
9 knowing about it until after the fact. The reason, again, these
10 species are on there is not because of the levels of harvest,
11 but it's because of the vulnerability of these species.

12
13 **JOSEPH KIMMEL:** Just for the group, if things change, in that
14 reporting becomes better or species abundance for red increases,
15 or if things happen so that we need an indicator, then there is
16 an amendment process that we could propose to the council to fix
17 those problems, and so we don't need to worry too much about
18 what's going to happen in the future, except that right now we
19 have to deal with selecting an indicator or not for this group.

20
21 **JOCELYN D'AMBROSIO:** I apologize, but, Walter, did you second
22 this motion? I see it's written there, but I didn't hear if you
23 did.

24
25 **WALTER KEITHLY:** Yes, I did.

26
27 **JOCELYN D'AMBROSIO:** Thank you.

28
29 **WALTER KEITHLY:** You're welcome.

30
31 **JOCELYN D'AMBROSIO:** I believe this is Motion Number 4.

32
33 **GRACIELA GARCIA-MOLINER:** Thank you.

34
35 **RICHARD APPELDOORN:** Any further discussion? If not, let's go
36 for a vote.

37
38 **JOSEPH KIMMEL:** Yes.

39
40 **WALTER KEITHLY:** Yes.

41
42 **DOUGLAS GREGORY:** Yes.

43
44 **JORGE GARCIA-SAIS:** Abstain.

45
46 **TYLER SMITH:** Yes.

47
48 **KEVIN MCCARTHY:** I would like to say that I'm happy that at

1 least one of my comments was consistent from meeting to meeting.
2 Thank you, Doug, and yes.
3
4 **RICHARD APPELDOORN:** I'm also a yes.
5
6 **GRACIELA GARCIA-MOLINER:** So the motion carries. Do you want a
7 couple of lines for the rationale?
8
9 **RICHARD APPELDOORN:** The rationale, as I'm understanding it, is
10 that lumping affords some protection for all the species, and so
11 it's basically spreading the risk of overfishing across all the
12 species rather than putting it all in one. You had made a point
13 that there is a seasonal closure in St. Croix for --
14
15 **GRACIELA GARCIA-MOLINER:** There is a seasonal closure for these
16 groupers that has been in place in St. Croix state waters since
17 2006 and in the EEZ since 2005.
18
19 **RICHARD APPELDOORN:** What's the closed season, do you know?
20
21 **GRACIELA GARCIA-MOLINER:** The closed season is February to
22 April.
23
24 **RICHARD APPELDOORN:** That pretty much gives them all the
25 protection.
26
27 **JOCELYN D'AMBROSIO:** The closure includes April, and so we could
28 say it's February through April.
29
30 **RICHARD APPELDOORN:** Okay. Same question for St. Thomas.
31 Again, the first question is what are the other species? Is it
32 also red, black, and tiger?
33
34 **GRACIELA GARCIA-MOLINER:** Black, red, tiger, and yellowfin.
35
36 **KEVIN MCCARTHY:** Not black?
37
38 **RICHARD APPELDOORN:** It's the same species.
39
40 **KEVIN MCCARTHY:** Okay, and so it's similar. For yellowfin, it's
41 consistently reported anywhere from 700 pounds to 1,500 pounds
42 in a year, but you also have consistent reporting of red, and
43 that's been low the first couple of years, anywhere from forty-
44 five pounds to 500 pounds, but, in 2015 and 2016, it's been
45 1,600 pounds in each of those years, and that is red grouper.
46
47 Tiger grouper is reported three out of the six years, and it's
48 been reported in three of those years, but we're looking at

1 thirty-five pounds to 123 pounds, and so not a lot, and then
2 black grouper is only one year of reporting, and it's only five
3 pounds, and so not much happening with black.

4
5 Now, part of that story is that, in the St. Thomas non-trap
6 forms, and so hook-and-line, nets, and diving, yellowfin is on
7 the form for hook-and-line and none of the others, and none of
8 them are on for net or for diving. The trap form, there aren't
9 any of these species on the trap form. In both of those cases,
10 they could be written in if they were caught.

11
12 On the new forms, we've got black, red, tiger, yellowfin are all
13 on the forms. Going forward, they're there to be reported, and
14 so the main difference here, compared to what we just looked at
15 for St. Croix, is that, in the two final years of our time
16 series of interest, we've got 1,600 pounds in each year of red
17 grouper.

18
19 **RICHARD APPELDOORN:** That would be about what percentage of the
20 total?

21
22 **KEVIN MCCARTHY:** A little over half for 2016 and two-thirds in
23 2015. There were only 700 pounds of yellowfin in 2015, versus
24 1,600 pounds of red and no pounds of the other species, and so
25 red grouper are -- For 2015 and 2016, they're the highest single
26 species for any year, any species, and so the highest for
27 yellowfin in 2012 was 1,500 pounds. I take that back. There is
28 1,700 pounds one year for yellowfin, and so it's right in the --
29 The last two years of red are right in the mix for the highest
30 several years of yellowfin.

31
32 **JOSEPH KIMMEL:** Kevin, you said that red grouper is caught by
33 traps and diving is not listing as an important gear?

34
35 **KEVIN MCCARTHY:** No, one of these species were listed on the old
36 trap form, but they could write them in, and only yellowfin was
37 listed for hook-and-line, and so the only one that was listed
38 for any gear in St. Thomas from 2011, July of 2011, to July of
39 2016 was yellowfin for hook-and-line. Nothing else was listed,
40 but they're all on the new forms, and so, beginning in July of
41 2016, all of these species are on the form, and they can be
42 reported for any gear.

43
44 **GRACIELA GARCIA-MOLINER:** There are a couple of regulations that
45 are extremely important for this group in St. Thomas
46 specifically. In 2005, the main spawning aggregation site,
47 Grammanik Bank, was closed, and so that took away the main
48 source of yellowfin grouper for St. Thomas, and then the

1 seasonal closures came into place in 2005 and 2006, and so,
2 basically, the February to April time period, from 2005/2006 to
3 present, they are under a seasonal closure. If the target was
4 the spawning aggregation and the spawning aggregation period,
5 that has been off limits to the commercial fishers since that
6 time.

7
8 **RICHARD APPELDOORN:** Is this a seasonal closure or is this an
9 area closure?

10
11 **GRACIELA GARCIA-MOLINER:** Both. It's a seasonal closure and an
12 area closure. The main spawning aggregation site, Grammanik
13 Bank, was closed in 2005.

14
15 **RICHARD APPELDOORN:** Right.

16
17 **GRACIELA GARCIA-MOLINER:** On top of that, there is a seasonal
18 closure February through April since 2005/2006 to present in
19 state waters through the EEZ.

20
21 **RICHARD APPELDOORN:** Well, again, my recommendation would be to
22 not have -- I mean, it's the same as the St. Croix situation,
23 perhaps even more so, because there is a red grouper -- There's
24 a more substantial red grouper fishery here that we do not have
25 an indicator for this group.

26
27 **JOSEPH KIMMEL:** Richard, I will make the same motion that I made
28 for St. Croix, but just have "St. Thomas" instead of "St.
29 Croix", to go with the aggregate approach.

30
31 **WALTER KEITHLY:** Could I go back to Richard's comment? Richard,
32 are you saying that we have an individual ACL for each species
33 or, as Joe just recommended, an aggregate?

34
35 **RICHARD APPELDOORN:** Aggregate. I'm with Joe.

36
37 **WALTER KEITHLY:** Thank you. I will second Joe's motion.

38
39 **RICHARD APPELDOORN:** All right. Let's go for a vote.

40
41 **JOSEPH KIMMEL:** Yes.

42
43 **WALTER KEITHLY:** Yes.

44
45 **DOUGLAS GREGORY:** Yes.

46
47 **JORGE GARCIA-SAIS:** Abstain.

48

1 **TYLER SMITH:** Yes.
2
3 **KEVIN MCCARTHY:** Yes.
4
5 **RICHARD APPELDOORN:** Now online we have our other new member,
6 Juan Cruz. He goes by J.J. J.J., are you voting? Is he on?
7 It says he's online.
8
9 **GRACIELA GARCIA-MOLINER:** It says he is online. Let me see if
10 he's muted.
11
12 **JUAN CRUZ-MOTTA:** I abstain on my vote.
13
14 **RICHARD APPELDOORN:** Okay. I vote yes.
15
16 **GRACIELA GARCIA-MOLINER:** So six. **The motion carries.** Do you
17 want to write something for the rationale?
18
19 **RICHARD APPELDOORN:** The rationale would be exactly what was for
20 St. Croix.
21
22 **GRACIELA GARCIA-MOLINER:** Now to Item Number 4.
23
24 **DETERMINE WHETHER TO USE THE ALTERNATIVE YEAR SEQUENCES FOR ST.**
25 **CROIX (STX) AND ST. THOMAS/ST. JOHN (STT/STJ) PROPOSED BY THE**
26 **SOUTHEAST FISHERIES SCIENCE CENTER**
27
28 **RICHARD APPELDOORN:** Item Number 4 is determine whether to use
29 the alternative year sequences for St. Croix and St. Thomas/St.
30 John proposed by the Southeast Fisheries Science Center. You
31 need to scroll down quite a ways to actually see the graphs of
32 the landings.
33
34 The new sequence would be Actually, I'm not sure, from reading
35 that, what the new sequences would be. The discussion that's in
36 there was our discussion of the year sequence prior to the
37 recommendation by the Southeast Center. Would someone from the
38 Center like to tell us what the new sequence would be?
39
40 **KEVIN MCCARTHY:** I am just looking here, and so this is a little
41 confusing for the Virgin Islands, because prior to I believe
42 2000, or it might be 1999 in St. Croix, but roughly there, we
43 would have a very difficult time splitting out by species, and
44 so let me walk you back in time.
45
46 Beginning in July of 2011, we started to get species-specific
47 information in the Virgin Islands. Prior to that, from about
48 1999 or 2000, we had species groups like snappers, groupers, et

1 cetera. Prior to that, we had information based on gear, and so
2 it would be something like pot fish or hook-and-line fish, that
3 kind of thing, with the exception of conch and lobster, which
4 were reported by species from the beginning of this time series
5 that you see, from about 1975.

6
7 I don't think the Science Center, and I didn't work on this.
8 This was out of Shannon's shop, but I don't think they are
9 proposing to somehow split out to species pot fish, but I think
10 that they are suggesting that they can come up with some sort of
11 landing estimates during the period when we had snappers and
12 groupers reported.

13
14 I can walk down the hall and see if Shannon is around to get her
15 comments on this, because I don't want to misrepresent what they
16 are proposing, since this is a big deal. This would represent a
17 fair amount of work, and so do we want to go on hold for five
18 minutes, and I will see if I can find Shannon?

19
20 **RICHARD APPELDOORN:** Well, I did find a thing where, yes, it's
21 from 1999 in St. Croix and from 2000 in St. Thomas/St. John.

22
23 **KEVIN MCCARTHY:** Okay.

24
25 **RICHARD APPELDOORN:** The question is for what groups are they
26 going to do these splits for? Is it everything or just --

27
28 **KEVIN MCCARTHY:** I would have to get Shannon's comments on that.

29
30 **JORGE GARCIA-SAIS:** I vote a break.

31
32 **RICHARD APPELDOORN:** That's actually not a bad idea. We will
33 take a short break, so people can use the bathroom, except for
34 Kevin, who is going to ask Shannon if this is going to be
35 feasible for all the species complexes or is this for certain
36 species complexes.

37
38 **KEVIN MCCARTHY:** Okay. I will try and track Shannon down.
39 Graciela, in the meantime, could you forward her the webinar
40 information? Maybe she already has it. I'm not sure what the
41 distribution list was.

42
43 **GRACIELA GARCIA-MOLINER:** She should have it, but I will do that
44 right now.

45
46 **KEVIN MCCARTHY:** Thank you. I will see if I can find her.

47
48 **RICHARD APPELDOORN:** All right, and so we're on a break. Try to

1 make it quick, five minutes.

2

3 (Whereupon, a brief recess was taken.)

4

5 **RICHARD APPELDOORN:** All right. We're back. The question,
6 Shannon, is we're talking about the year sequences in the Virgin
7 Islands and the recommendation that was made by the Southeast
8 Center to be able to back-calculate proportionally the landings
9 from the Virgin Islands, and that would be the 2000 in St.
10 Thomas and 1999 in St. Croix. The question was is this
11 something that is feasible for all the stock complexes or just
12 some of them?

13

14 **SHANNON CALAY:** All right. Well, it's feasible for many, but
15 there were some difficulties with complexes that none of the
16 species may have been on the form. I can give you a list of
17 which ones it is -- Maybe it would be better which ones it is
18 not possible for by bringing in Adyan Rios. It would be
19 possible for most. That is one reason that we only took it back
20 to the year we did, is that's when, in most cases, it was
21 possible to divide the group members out.

22

23 **RICHARD APPELDOORN:** Right, and we understood that, because
24 that's when the forms changed.

25

26 **SHANNON CALAY:** There were a few complications. There were a
27 few groups that I think either no member was on a form or were
28 not possible to break out. Let me go talk to Adyan right now,
29 and I can get a list for you.

30

31 **RICHARD APPELDOORN:** Okay, because, otherwise, we're just left
32 with saying we make a recommendation -- If we want to go this
33 way, we're making a recommendation for those species for which
34 it's possible without knowing what those are.

35

36 **SHANNON CALAY:** Right.

37

38 **JUAN CRUZ-MOTTA:** One question, Shannon. On page 23, it says
39 that this approach assumes that the species composition is the
40 same in both periods, and that means 2012 to 2016 and 1999 or
41 2000.

42

43 **RICHARD APPELDOORN:** Correct.

44

45 **SHANNON CALAY:** That's correct, and we realize that that is an
46 assumption, and, if we had better information, we would use it,
47 but the reality is -- What Adyan has prepared is a tool that if
48 you have a different species composition in mind that it could

1 be inserted, but what we have used to date is the assumption
2 that the species composition was the same across the period.
3 That's the best information available to us at the moment.
4

5 **JUAN CRUZ-MOTTA:** The question is, Shannon, are we given that
6 information on species composition back in 1999?
7

8 **SHANNON CALAY:** Not from the sources of information that we used
9 for this analysis. If you've got better information, if you
10 want to apply an alternative species composition, that can be
11 done, but this analysis simply used the records that we have for
12 recreational and commercial landings.
13

14 **JUAN CRUZ-MOTTA:** Okay. Thank you.
15

16 **SHANNON CALAY:** You're welcome. Let me go grab Adyan, so that
17 she's aware of this conversation. I will be right back.
18

19 **RICHARD APPELDOORN:** Okay. My concern along those lines, when
20 she gets back, is going to be when did closures occur relative
21 to these datasets, and I think the closures occurred before, and
22 so that would not be an issue, but we need to look at that,
23 because something like groupers would be strongly affected by
24 these closures, as would snappers, at least the mutton snapper
25 complex.
26

27 **GRACIELA GARCIA-MOLINER:** Richard, and so the regulations for
28 the seasonal closures or the spawning or the ACL closures,
29 seasonal closures?
30

31 **RICHARD APPELDOORN:** Seasonal closures.
32

33 **JUAN CRUZ-MOTTA:** Shannon, are you still there?
34

35 **SHANNON CALAY:** I am here now.
36

37 **JUAN CRUZ-MOTTA:** Another question. Those relative frequencies,
38 they were calculated on the biomass or the abundances?
39

40 **SHANNON CALAY:** I think they're on biomass, but Adyan is the
41 best person to ask. She's the one that conducted the analysis,
42 and I just -- Let me just send her the call-in information, and
43 she'll be on shortly.
44

45 **JUAN CRUZ-MOTTA:** Okay. Thank you.
46

47 **RICHARD APPELDOORN:** Do you have the regulations for --
48

1 **GRACIELA GARCIA-MOLINER:** Which one do you want, the Grouper
2 Unit 4?
3
4 **RICHARD APPELDOORN:** That would be red hind, the closure of the
5 Grammanik, the closure of the MCD.
6
7 **GRACIELA GARCIA-MOLINER:** So red hind, the seasonal closure --
8 In Puerto Rico in 2004, and that's red hind.
9
10 **RICHARD APPELDOORN:** No, we're talking about St. Thomas and St.
11 Croix.
12
13 **GRACIELA GARCIA-MOLINER:** There is not a red hind closure in St.
14 Thomas or St. Croix.
15
16 **RICHARD APPELDOORN:** The MCD, but that was before 2000.
17
18 **GRACIELA GARCIA-MOLINER:** The MCD had a 1990 seasonal closure,
19 and then, in 1999, it was a total closure. The Grammanik was --
20
21 **RICHARD APPELDOORN:** But there is also a seasonal closure for
22 yellowfin and all grouper?
23
24 **GRACIELA GARCIA-MOLINER:** The groupers was in 2005 for the -- It
25 was in 2006 for the St. Thomas/St. John EEZ and in St. Croix and
26 in state waters.
27
28 **RICHARD APPELDOORN:** 2006?
29
30 **GRACIELA GARCIA-MOLINER:** Yes.
31
32 **RICHARD APPELDOORN:** That is St. Croix?
33
34 **GRACIELA GARCIA-MOLINER:** Yes, and St. Thomas.
35
36 **RICHARD APPELDOORN:** And St. Thomas. It was 2005 in the EEZ?
37
38 **GRACIELA GARCIA-MOLINER:** Yes, and then Lang Bank in St. Croix,
39 the seasonal closure was in 1993 for red hind and then it
40 changes in 2005, and so no bottom-tending gear.
41
42 **RICHARD APPELDOORN:** Then the mutton snapper closures?
43
44 **GRACIELA GARCIA-MOLINER:** Mutton snapper is April to June of
45 2005 in the EEZ and 2006 in St. Thomas and St. Croix.
46
47 **ADYAN RIOS:** Hi, everyone. This is Adyan.
48

1 **RICHARD APPELDOORN:** Adyan, can you hear us?
2
3 **ADYAN RIOS:** Yes.
4
5 **RICHARD APPELDOORN:** Okay. The question to you is which
6 complexes do you think that calculation approach can be applied
7 in the Virgin Islands?
8
9 **ADYAN RIOS:** Off the top of my head, squirrely, and I think
10 there was one more. I am going to look through my notes now,
11 but that's just one of the things that weren't on the forms
12 previously, and so you wouldn't be able to partition that from
13 any of the categories that weren't previously on the form.
14
15 **RICHARD APPELDOORN:** You are giving us the ones that can't be
16 done?
17
18 **ADYAN RIOS:** Yes.
19
20 **GRACIELA GARCIA-MOLINER:** So the ones that cannot be done, which
21 one was the first one that you just mentioned?
22
23 **RICHARD APPELDOORN:** Squirrely.
24
25 **ADYAN RIOS:** There are also -- I think there was one more that
26 was sometimes reported in the previous period, but it was just
27 reported as -- It was like a write-in, and I think that was one
28 of them. I am going to look through my notes and get back to
29 that question, and then I believe Shannon had told me that you
30 guys were also wondering if that could be done with numbers or
31 in biomass?
32
33 **RICHARD APPELDOORN:** No, biomass is what we want, but there was
34 just a question of what was used.
35
36 **ADYAN RIOS:** If you use the recent information to partition the
37 old information, then you can do it in biomass. With TIP, I
38 guess you could add it up -- The way I had been exploring TIP so
39 far over those years is in numbers, and so I would have to
40 change that, which it does make more sense to use biomass.
41
42 However, I do want to point out the one bad thing of using the
43 recent information is, for species like goliath and Nassau,
44 which you know were caught previously, if you were to use recent
45 ratios, just because of regulations, those historically would be
46 zero, when we know they weren't zero, and so that's where
47 looking into the TIP has become the latest action.
48

1 **RICHARD APPELDOORN:** All right, and so my concern is more for
2 things like red hind in St. Croix. The yellowfin grouper unit
3 is different numbers in St. Croix and St. Thomas. Mutton
4 snapper -- The reason for these is because they all had closures
5 put in since 2000, and I would expect that that assumption of
6 the constant ratio would be strongly violated, and so, for those
7 groups, you could not run back the full sequence. You could run
8 back until those laws were put into place, and it looks like
9 that would be something like 2006.

10
11 **ADYAN RIOS:** If you were to use the constant ratio, you would
12 want to definitely take into account things like regulations.

13
14 **RICHARD APPELDOORN:** Right, and so is that in your thinking?

15
16 **ADYAN RIOS:** No, because I've just been doing things more on the
17 macro sense, and I haven't really focused on a particular
18 species, and I don't have like the regulations upfront, and so
19 I've just been holding so that it gives me the time series. I
20 mean, that would be the next level, but I haven't really focused
21 on any particular species, and so that direction -- I mean, I
22 could.

23
24 **RICHARD APPELDOORN:** Well, I mean, our problem is we're looking
25 at this recommendation now, and we don't have any of the data to
26 look at, nor does it seem that we have the protocol that's going
27 to be used to do this really set up yet, and so that makes it
28 difficult for us to think about this in anything other than the
29 abstract.

30
31 **WALTER KEITHLY:** Mr. Chairman, can I make a comment? I agree
32 with you entirely on what you just stated, but, also, I just
33 have a problem with going back any farther than the period we
34 agreed upon several meetings ago, and it's specific to the
35 problem that I think that we have with some of the older data.

36
37 We have testimony on record that the St. Croix landings were
38 likely overreported for several years, and you can look at the
39 briefing book to see the reasons where that -- You can go back
40 to the minutes. Also, we had, at some point, and I don't know
41 exactly when it changed, but the fishermen only presenting
42 annual landings rather than monthly logbooks, and so I think
43 that, given the problems and the concerns that we had with the
44 earlier data, we decided to use 2012 as the base year, the
45 starting year, and I have concerns about going back any farther
46 than that.

47
48 **RICHARD APPELDOORN:** Yes, and if you look at the transcripts

1 that were provided here, they clearly say that was the issue,
2 was the concerns about the data. The consistency thing was like
3 a bonus to that, but it was really our questions about data that
4 drove us to go -- Not just the species-specific aspects of it,
5 but the degree of reporting, as you had just mentioned.

6
7 **WALTER KEITHLY:** I agree with what is stated in the briefing
8 book that we do have issues, that are likely due to economics,
9 landings have been low in recent years, but I think we just have
10 to work with that, rather than try to take this older, pre-2012,
11 data into -- To start using it.

12
13 **KEVIN MCCARTHY:** Adyan, are you prepared to speak to how this
14 all came to be, this recommendation from the Science Center, of
15 taking the numbers back based upon some ratios? Are you able to
16 address that question, so we can understand how this even became
17 a proposal, or are you not prepared to speak to that?

18
19 **SHANNON CALAY:** This may be best addressed to SERO, and that's
20 hard to know, and what actually happened is that -- It's hard to
21 explain, but it was just a non-starter due to some issues with
22 perception that the process was not being applied equally in
23 Puerto Rico as it was the USVI, and, basically, the testimony
24 that we've started to hear is that this was unacceptable to the
25 fishing community in the USVI and that essentially this was a
26 done deal at the council because of the treatment of the two
27 regions.

28
29 The question was could we apply something more similar to what
30 was done in Puerto Rico, where we did carry the landings
31 backwards, recognizing that there were reasons why we treated
32 the two platforms differently that were due to the quality of
33 information available.

34
35 We did agree to take it back, as it was done in Puerto Rico,
36 with the caveat that very strong assumptions are required, and
37 so it was presented as a possible alternative to the council to
38 be evaluated by the SSC before it can be deemed acceptable, and
39 so I don't know if SERO wants to weigh-in, but this is a
40 conversation that has been --

41
42 **BILL ARNOLD:** This is Bill, and I would like to weigh-in. I
43 think what the council is seeing is those three plots and the
44 outcomes from those plots. If you look at the plots, they tell
45 the core of the story. The SSC has chosen a time period for
46 Puerto Rico when landings were relatively high and a time period
47 for the USVI when landings were relatively low.

1 Now, regardless of why that choice was made, from the point of
2 view of the USVI folks, it's extremely unfair, and that's all
3 they see, and, really, when it turns into a pocketbook issue, it
4 is very unfair, because, in St. Thomas, you're ending up with
5 okay ABCs relative to the previous ACLs, but, in St. Croix those
6 ABCs are -- Even for spiny lobster, the ABC is, I think, 40,000
7 pounds less than the presently-established ACLs.

8
9 Now, I don't think any of us would disagree that that's going to
10 be a hard pill to swallow for St. Croix, getting their spiny
11 lobster allowable catch cut by 30 to 40 percent, even though
12 their carapace lengths are somewhere, on average, around 4.25 or
13 so, relative to a 3.5-inch minimum, which is still a half-inch
14 higher than the Florida Keys healthy spiny lobster population.

15
16 It's a huge issue to them, and the other things to keep in mind
17 are, while it's easy to criticize the USVI landings history, you
18 guys have said yourselves that those same criticisms can be
19 leveled at the Puerto Rico landings history, and so using some
20 comparison of historic landings and saying Puerto Rico is okay,
21 and so we can use these higher landings, and around the USVI is
22 not, and so we can't, is not a very strong argument, and you are
23 on the record as stating it's not a good argument.

24
25 That's why you went -- When the discussion was held as to
26 whether the reduction should be 0.4 or 0.5 for the USVI, the
27 scientific uncertainty reduction, the SSC voted and stated on
28 the record that it should be the same as Puerto Rico, because
29 both of them have scientific uncertainty issues and landings
30 issues.

31
32 You used the expansion factor, but nobody really thinks that
33 that expansion factor is a perfect problem solver for the
34 landings data that is equally flawed in Puerto Rico. For all we
35 know --

36
37 **WALTER KEITHLY:** Bill, I'm going to interrupt you there, because
38 I think you're misrepresenting what the SSC has been stating.
39 For Puerto Rico, yes, there is considerable uncertainty, but you
40 don't know whether it's random or not. In some years, with the
41 expansion factor, you may be overreporting, or the expanded
42 landings may be greater than the actual landings, and some years
43 less than.

44
45 With at least St. Croix, what we had is a record that clearly
46 indicates that landings, reported landings, are overstated in
47 earlier years, and so there's a big difference between saying,
48 well, we have uncertainty in Puerto Rico and uncertainty in St.

1 Croix and St. Thomas. In St. Croix, as Edward stated, fishermen
2 -- If you have four fishermen on the boat, they've all been
3 reporting the landings from the boat on a given trip, and so we
4 know that for St. Croix that the reported landings in earlier
5 years are overstated.

6
7 For Puerto Rico, with the expansion factors, in some years the
8 landings may be higher than the actual landings, and in some
9 years the expanded landings may be lower than the actual
10 landings, and so I just wanted to bring that out, that I think
11 what you're saying is not factually correct. Thank you.

12
13 **BILL ARNOLD:** Okay. I would pretty strongly disagree with that,
14 Walter, because I don't think you've got any solid evidence from
15 any of these islands to make clear statements about these
16 landings data, but the bottom line is look at the plots and look
17 at what's being captured for each of the three islands and ask
18 yourselves, if you were on St. Croix, or you were on St. Thomas,
19 would you feel that you're being treated fairly relative to
20 Puerto Rico? Just try to be unbiased about it, because it seems
21 to me that it's pretty clear.

22
23 Now, one thing that I had suggested that didn't seem to be
24 particularly well accepted is, rather than these complex
25 machinations, just create an index factor, so that you can say
26 that these -- We're going to use this time period, because it's
27 species-specific data, and we're comfortable with it.

28
29 We know that these populations can sustain higher levels of
30 harvest, as has been proven historically, and we will say that
31 that is an index factor of 1.5 or an index factor of two or
32 whatever you think it should legitimately be and say we're just
33 going to multiply that average by that index factor, and that
34 will raise our SYL, and that will raise our ABC to more
35 appropriately reflective levels, reflective of what these
36 populations are actually capable of supporting.

37
38 Again, I reference spiny lobster as being the poster child for
39 this, because clearly they are doing well. Their carapace
40 length is up, and there is no indication on any of these three
41 islands that spiny lobster are anything but healthy in the case
42 of these fisheries, and so, if you use that as a guide, and
43 maybe that's not true for all of them, but that's why you have
44 these buffers and all the considerations that went into setting
45 the ABC, but I assure you that, to the best of my knowledge, if
46 you leave things the way they are, these FMPs will be rejected
47 by the council.

48

1 Now, if you feel that it's appropriate for these FMPs to be
2 rejected by the council and for us to go back to the drawing
3 board and start over, and we're going to have to do something
4 different, because, otherwise, what's the point, then stick with
5 this, but, if you want to solve a problem, this is a problem
6 that needs to be solved.

7
8 **RICHARD APPELDOORN:** This is a problem that could be addressed
9 through scalars and buffers.

10
11 **BILL ARNOLD:** Yes, absolutely. It hasn't been, but it could be.

12
13 **RICHARD APPELDOORN:** Well, one of the problems that we have
14 faced in the last couple of meetings, particularly the last one,
15 is that we actually -- We developed this system based on
16 principle, and, as I have made the analogy before, it's like
17 building an airplane, but you really want to test whether it
18 flies first before you start booking passengers.

19
20 We just haven't seen the data for all of these things as to what
21 comes out, and so, if this is a problem, it's new to us, in that
22 regard. We are aware that these landings are lower, and we
23 looked at some of these things, and it was like it seemed to be
24 okay, but maybe that was St. Thomas that we were looking at, and
25 I don't recall, but, without looking at really what's going on,
26 it's difficult to do these things without seeing the data. I
27 would look at the St. Croix landings and ask why are those
28 collapsing presumably years before St. Thomas, and when did
29 Hovensa close?

30
31 **GRACIELA GARCIA-MOLINER:** 2008.

32
33 **RICHARD APPELDOORN:** 2008 was the same time that everybody else
34 was being hit by the economic recession, yet, for five years
35 prior to that, St. Thomas total landings are going way down -- I
36 mean, St. Croix landings are going way down, and so I think we
37 have --

38
39 **BILL ARNOLD:** Another key point, Richard, is Puerto Rico
40 basically follows the same pattern.

41
42 **RICHARD APPELDOORN:** Yes.

43
44 **BILL ARNOLD:** It's worse in Puerto Rico, yet Puerto Rico is
45 getting all the benefit. Puerto Rico's spiny lobster landings
46 are going up by like 70 or 80 percent, or at least their ABC
47 relative to the present SYL. Maybe not that much, but it's like
48 they're going to be getting 100,000 or 120,000 more pounds if

1 the council sticks with the ABC that equates that to the ACL.

2
3 I mean, if you look at these landing patterns and then you look
4 at the outcomes, the outcomes are not consistent with the
5 landings patterns, and saying that St. Croix has been going down
6 -- Those patterns are the same for all three island groups and,
7 as I said, perhaps even worse for Puerto Rico.

8
9 **RICHARD APPELDOORN:** No, that's not what the data show at all.

10
11 **BILL ARNOLD:** Well, go up. Look at 2004 and look at 2006. Look
12 at 1988 to 2004 and then look at 2006 to 2015. That's probably
13 a 30 percent drop. Why would you say that Puerto Rico is fine
14 when the others aren't? I don't follow that rationale.

15
16 **KEVIN MCCARTHY:** Let's go back to why I recall this decision
17 being made, and it's not patterns of landings, and it's not any
18 of that. It's when did we have species-specific information,
19 and that was the long and the short of it. When do you have
20 that? It's July of 2011 in the Virgin Islands and throughout
21 the time series in Puerto Rico, and so let's not lose sight of
22 that.

23
24 **BILL ARNOLD:** Kevin --

25
26 **KEVIN MCCARTHY:** I believe you, Bill, that there are going to be
27 problems getting this through, and I think there is a rationale
28 that we can come up with with going backwards in time, and I
29 don't think that it's that approach you proposed, because then
30 we're just -- Unless you've got a strong rationale for how
31 you're going to come up with these new scalars or whatever
32 you're calling your new term, I would have some concerns with
33 using the approach of getting some species-specific ratios and
34 applying them backwards in time, but at least that's based on
35 some data.

36
37 Once more, we now have a much better or more complete, I should
38 say, reporting form in the Virgin Islands, which we can revisit
39 in some numbers of years, in three years and five years, and see
40 if those proportions actually hold up, but let's -- It seems to
41 me that we need to either table this and let's get the Science
42 Center -- Let's get a data request to the Science Center to do
43 A, B, and C, so that, the next time we meet, we can -- This is a
44 big deal. This is not something we're going to knock out in a
45 half-an-hour.

46
47 Let's put together a specific data request to the Science Center
48 and say we need to see A, B, C, and D, and whatever that is.

1 How do the number play out if we use our proposal as it stands
2 today, and maybe we want to see how those numbers play out based
3 upon the Science Center's recommendation of getting some
4 proportions and applying the backwards -- Problematic though
5 that may be, they will need to account for things like
6 management decisions that are going to affect those proportions,
7 but we could talk about this all day and get nowhere, and so
8 let's make some recommendations, and I think it's going to take
9 longer than just a conversation here for the next forty-five
10 minutes or half-an-hour, whatever we set aside for this.

11
12 **BILL ARNOLD:** All right, Kevin, and I agree, but I just want to
13 point out that I was not rebutting the choice of year sequences.
14 I was rebutting Walter's claim about the landings history.
15 That's a big difference.

16
17 **RICHARD APPELDOORN:** If you have something to say, say it.
18 Otherwise, I am thinking about what to say. I think I would
19 agree with Kevin that we ought to table this until such time
20 that we both have the time and the information necessary to
21 revisit this, and so what we would like to have is estimates of
22 the SYLs and ABCs for the Virgin Islands fisheries under both
23 year sequence proposals, or scenarios, along with a detailed
24 account of how the back-calculations are being done, and so TIP
25 data has to come in at some point, and that's good. If they're
26 affected by regulations, how that was dealt with, et cetera.

27
28 I would also like to see -- My preference would be that, if this
29 is really an issue from the point of view of the economics of
30 the Virgin Islands, that, if we had some economic indicators of
31 the health of things there, that that possibly could be used to
32 adjust scalars and buffers, but we would need some input data on
33 that.

34
35 I know, in one of the meetings, Walter was able to get online
36 and get an indicator of something for St. Croix, and I don't
37 remember what it was, but it did show a significant decline, and
38 so there must be some information out there that potentially can
39 be used. This would only be valid for the Virgin Islands, the
40 way I'm looking at it, because we're looking at a year sequence
41 that is fully embracing not only the great recession, but it
42 also -- In St. Croix's case, it's the closing of Hovensa, which
43 was a real big economic shock to them, in addition to what St.
44 Thomas was feeling.

45
46 **SHANNON CALAY:** Rich, can I say something?

47
48 **RICHARD APPELDOORN:** Please.

1
2 **SHANNON CALAY:** I just wanted to remind the SSC that any work at
3 this point is essentially unplanned, and we have to fit it
4 within our calendars, but, given that a spiny lobster assessment
5 is pending now, in June, and Adyan is leading that assessment,
6 we're looking at, at this point, eight weeks before we can have
7 a comprehensive document completed.

8
9 I also want to remind the SSC that one of the complications of
10 working in the Caribbean has been that the data is very
11 uncertain. The landings data is uncertain, and, as we have
12 tried to increase the complexity of the analysis to allow for
13 species-specific ACLs, that uncertainty has increased, and so I
14 am really feeling like we're at the point now where the
15 complexity that is envisioned by the SSC has really exceeded our
16 ability to conduct these analyses and quantify the uncertainty
17 properly.

18
19 When the SSC is faced with -- They have typically chosen very
20 simple mechanisms to create ACLs. They have essentially
21 adjusted the scalars based on -- Or they have adjusted the mean
22 plus the standard deviation, or two standard deviations, in the
23 case of the Gulf Council, and we're really in uncharted
24 territory here in the complexity of the analysis that is
25 envisioned when our data is insufficient.

26
27 (Part of Dr. Calay's comments are inaudible on the recording.)

28
29 **SHANNON CALAY:** I think that we have just gone a bit off the
30 rails here with the complexity that is envisioned. Now, that
31 being said, if the SSC can come up with a fairly concise method
32 to address, we will do that work, but it's probably eight weeks
33 before we can have it completed. Now, I'm not sure that falls
34 within the timeframe that the council has essentially
35 envisioned.

36
37 (Part of Dr. Calay's comments are inaudible on the recording.)

38
39 **RICHARD APPELDOORN:** I think we're all with you on that. My
40 concern is there is a lot of push to push numbers higher, and,
41 if they get high enough, people will be satisfied with that and
42 never try to get their data good enough to get to a Tier 3.

43
44 **SHANNON CALAY:** I certainly share your concern.

45
46 **RICHARD APPELDOORN:** Now, we did -- This is going to come up
47 later in one of the agenda items, is the issue of altering the
48 buffer to account for uncertainty, additional uncertainty,

1 relative to unspecified landings, and, if we were going this
2 route, that would certainly apply to this extended year sequence
3 that has been proposed, and so remember to consider that. If we
4 want to make things simple, we could expand the year sequences,
5 but then account for a greater deal of uncertainty when dealing
6 with the buffers. Any thoughts from the committee?

7
8 **KEVIN MCCARTHY:** I think we need to give the Science Center some
9 data requests.

10
11 **DOUGLAS GREGORY:** I think this is Doug. I think there may be
12 two computers in one room, or a computer is getting feedback
13 between its microphone and speaker. People should silence
14 themselves when they are not talking.

15
16 **GRACIELA GARCIA-MOLINER:** Everyone is silent.

17
18 **RICHARD APPELDOORN:** Well, as I said, my preference would be to
19 have some things run and have some options on how to deal with
20 this. The alternative is just either going with what we have
21 and let them reject it or going with the other proposal, not
22 knowing what that's really looking at, because we don't know
23 what those numbers look like, and I'm talking about the year
24 sequence by groups, and then applying a buffer to account for
25 uncertainty.

26
27 **JUAN CRUZ-MOTTA:** May I intervene, Mr. Chairman? My opinion is
28 that the assumption of the relative frequencies to be the same,
29 stable, not changing through time is very -- That is very
30 unlikely right? The thing is what Kevin was saying, that we
31 don't have an alternative at this stage. The question that I
32 have or the point that I want to make is that ABCs are estimated
33 on species-specific cases, right?

34
35 **RICHARD APPELDOORN:** Yes, for the most part.

36
37 **JUAN CRUZ-MOTTA:** Then we're trying to come up with a
38 standardization that works for the whole assemblage, which is
39 the relative frequencies, which, by the way, was done under
40 numbers, and I guess it should be done under biomass, and to use
41 that standardization on a limited space, to be applied in
42 species-specific cases, it's like stretching it too much.

43
44 The question perhaps for Adyan is have you tried any other -- I
45 know what is the problem you are facing, and, honestly, at this
46 time, I'm new in the group, and I cannot come up with a feasible
47 alternative, and so the question is have you guys thought of
48 alternative standardization techniques?

1
2 **ADYAN RIOS:** I think what's going -- Yes, there has been
3 alternatives, but there is, in some form, just kind of
4 permutations on the main idea. Like, for example, one of the
5 clarifications, I think, is about averaging over a group or
6 averaging the final results of that group, because you could
7 also just treat the entire groups -- Instead of using individual
8 species, you could also collapse. Multiple ideas have been
9 entertained, but I think that the discussions have led towards
10 the different ways of partitioning, and so there's a few
11 different options there as well.

12
13 **JUAN CRUZ-MOTTA:** Adyan, the drafts that we're looking at in the
14 report, specifically those that show a reduction in total
15 landings, have you analyzed if that reduction was due to
16 particular species or it was across all species or some groups
17 were contributing to that reduction? Is it possible to detail
18 that reduction? Was it only one group or all the groups or
19 species, and I don't know, but is there anything you can say
20 further on that reduction?

21
22 **ADYAN RIOS:** Usually we have looked at the individual time
23 series, but I haven't done a comparative in that sense. Like I
24 haven't stacked the individual species landings to see if it's -
25 - From as groups in SEDARs, as well as in the council, when we
26 pull up the landings in an Excel sheet and kind of pivot, we
27 just look at individual species, and so that's something that
28 could also be -- I also have plots that show the individual
29 species landings, but that hasn't been compared across all
30 species, but that could be part of the request.

31
32 **JUAN CRUZ-MOTTA:** Yes, because that could give light on
33 alternative methods to standardize and address the issue that
34 you are facing at the moment, instead of having relative
35 frequency across the whole dataset, across the whole species
36 composition, but I am not helping much with the solution, and
37 sorry, guys. I am just trying to know a little bit more about
38 the problem. Thank you, Adyan.

39
40 **ADYAN RIOS:** It's just a different angle. No problem.

41
42 **RICHARD APPELDOORN:** Bill, the consequences of tabling for
43 potentially two months are what?

44
45 **BILL ARNOLD:** The answer is the question to the SSC was would
46 you like to try this alternative approach or not, and that's a
47 yes or no, and it sounds like your answer is going to be no. If
48 it's no, then we move forward with the FMPs using 2012 to 2016

1 for the USVI, and we take that to the council in August, and you
2 guys don't do anything else. You have done it, and they decide
3 whether they are willing to accept those ABCs or not. If they
4 are, then that's it.

5
6 **RICHARD APPELDOORN:** Bill, that's not the question. The sense
7 I'm getting is that we don't know whether we want to do one
8 versus the other, because we don't have sufficient information
9 to make that choice. If it's going to take us two months to get
10 enough information for us to make that choice, what is the
11 consequence?

12
13 **BILL ARNOLD:** The consequence is you -- Well, first, the first
14 consequence is that you've got an SSC meeting scheduled for the
15 middle of July, and that seems pointless, and so I would say
16 your first step is to cancel that meeting and reschedule. The
17 second is I'm not sure what value there is in already scheduled
18 council meeting in August if you haven't made the decision, and
19 I guess they can talk about other things, but it won't be a very
20 busy meeting, and we would, at the earliest, come back in
21 December with your new recommendations, and so you've got plenty
22 of time now, and these FMPs would not go in place until 2020 at
23 the earliest.

24
25 As I say every time, keep in mind that you've been working on
26 these things -- We have been working on these things, these
27 FMPs, for roughly six to seven years now, and the SSC itself has
28 been addressing the FMPs in general for well over two years, and
29 these specific issues for well over a year.

30
31 My confidence in scheduling one more meeting to find a solution
32 is minimal, but my confidence doesn't matter, and my opinion
33 doesn't matter, but that's what I would say the consequences of
34 this would be.

35
36 **RICHARD APPELDOORN:** Adyan, would it be possible to run some
37 reasonable subset of complexes for the Virgin Islands using the
38 longer timeframes, but so that we would have that available to
39 us in the July meeting, or are you going to be so bogged down
40 with lobster that that's really not going to be possible?

41
42 **ADYAN RIOS:** I think a reasonable subset is possible, but I do
43 want to, in a way, highlight that we don't have regulations or
44 economic events or form changes all concisely summarized, and so
45 those become a lot of work, and so the way that I've been
46 implementing the rule has just been kind of generic.

47
48 To provide one or two in-depth like that I think is doable, but

1 to have that -- Because I just remembered that I think it was
2 angelfish that was another write-in, which means that it wasn't
3 good for back-calculations, because, even though you have
4 angelfish in the time series, you don't -- Well, anyway, it
5 comes back to understanding the ancillary data, which is
6 regulations, form changes, and economic indicators, versus just
7 running it as an example, which is easy to do for a couple of
8 species.

9
10 **KEVIN MCCARTHY:** Well, I would also -- If we're going to ask for
11 some sort of economic indicator, and I think I missed that part
12 of the conversation. I was dashing down the hall to get some
13 input from somebody else, but that is not in Shannon's group,
14 and so that is a data request that's going to have to go to Clay
15 Porch, and he will assign it to the economics group, and we
16 don't have an estimate for them to come up with that analysis.
17 They're not on the phone, and so let's be cognizant of that,
18 that these timeframes that I think we're hearing right now are
19 from Shannon's group and not from the other groups in the
20 Science Center.

21
22 **RICHARD APPELDOORN:** Okay. I don't think the economic info that
23 we're looking for is complicated. It's basically overall
24 economy in the islands.

25
26 **KEVIN MCCARTHY:** Fair enough, but I don't know what's on their
27 plates, and so we would have to -- The council would have to
28 make that request to Clay, and he can then send it on to the
29 appropriate folks, and it would have to fit into their schedules
30 somehow, and so we just need to be aware of that.

31
32 **WALTER KEITHLY:** Mr. Chairman, I was going to say that the basic
33 economic indicators will not take that long, and it's not needed
34 before the July SSC meeting, and I can provide something, if
35 need be, and that's issue number one that I wanted to bring up.

36
37 The other issue is I agree with Bill entirely in terms of the
38 number of years that this has taken to develop these FMPs and so
39 forth, but I just want to put it on the record that it was not
40 us who brought up this most recent proposal to expand the year
41 sequence for the Virgin Islands. You know, we have been going
42 along for some time now with the 2012 through 2016 year
43 sequence, and it was just recently that it was brought up to the
44 council, and not even to the SSC originally, and, for that
45 reason, I fully support a more in-depth analysis on it before
46 the SSC takes any action. Thank you.

47
48 **RICHARD APPELDOORN:** Do you want to make a motion?

1
2 **WALTER KEITHLY:** I will hold off, for the time being. The
3 reason I'm holding off is I'm not sure what all is required in
4 terms of -- You mentioned a subset of species, and I don't know
5 what that all entails to take on a project of that size at this
6 point. When we say a subset, whether that would be two species
7 or how that would work, and so I'm still a little confused on
8 how much detail we would get by the July SSC meeting.

9
10 **RICHARD APPELDOORN:** Well, that's something we would have to get
11 feedback from I guess Shannon, but it's enough species that we
12 have some kind of representation of how the system is behaving,
13 but we certainly don't need to have all of them done to have
14 that. If there is going to be problems, and I think someone
15 mentioned spiny lobster as one that's already been indicated,
16 and most species have to be run to know whether we're looking at
17 something isolated or we're looking at an overall pattern.

18
19 **BILL ARNOLD:** Adyan, didn't Shannon or you already run a few?
20

21 **ADYAN RIOS:** Yes, we ran a few examples, but with these kind of
22 using the current ratios, bringing those back in time. Spiny
23 lobster is a really easy one, because it's always been reported
24 as spiny lobster. That was one of the examples we ran, and I
25 believe we also did queen triggerfish, but those were with the
26 current ratios, and so those worked for those species, and
27 that's where we identified what species of this, dragging back,
28 it might not work for. If we don't have landings to partition,
29 we can't partition them.

30
31 Then the other issue is, for example, that came up through that
32 exercise was species that are not caught now that were caught
33 previously also wouldn't be able to be partitioned with the
34 current -- There are a few examples of using the current ratio,
35 but I didn't apply the TIP ratios to that. I have still been
36 just crunching numbers and getting the ratios from the TIP.

37
38 **SHANNON CALAY:** Rich, in answer to your question about what can
39 the Science Center do by the July SSC meeting, really the only
40 thing that we can bring with us is the spreadsheet that shows
41 you SYL and ABC for the methods that the SSC had designed and
42 for the alternative timeframe, but one thing that I said earlier
43 that probably couldn't be understood is that, if you are looking
44 for socioeconomic indicators, that is a different group here at
45 the Science Center.

46
47 We do not supervise that group, and so you need to go through a
48 formal council request that goes through Clay's office, and they

1 will need to tell you how much time it would take to construct
2 those indicators. At this point, this is not something that can
3 be done quickly. We are fully engaged right now in SEDAR
4 processes throughout the Gulf and Caribbean, and we don't have
5 any excess capacity to devote to unplanned work, and so you're
6 looking at at least eight weeks from the date that we receive a
7 council request to do really anything, and it has to be a very
8 concise -- Well, it has to be a detailed council request. It
9 can't be just an investigation. It has to be address specific
10 questions.

11
12 Basically, what we're looking at, if we pursue this, is
13 recreating management work in the Caribbean, and I have no idea
14 how long that will take, but it really requires all kinds of
15 additional thought, and so, if that's the direction the SSC
16 wants to head, they can certainly do that, but we can't very
17 quickly supply new information.

18
19 **WALTER KEITHLY:** Shannon, I'm a little confused, because it was
20 your office, the Science Center at least, that proposed this new
21 method, and it would have had to be done by the August council
22 meeting anyway, wouldn't it?

23
24 **SHANNON CALAY:** We can do that. I mean, we've got the two
25 timeframes, and that's something that we can do pretty easily
26 within the spreadsheet and the codes that Adyan has already
27 constructed with the current period ratios. The way we have
28 demonstrated it for the council can be done. That, we could
29 prepare in time for the July meeting, but we cannot incorporate
30 socioeconomic indicators, nor do we have any basis to test their
31 performance. If you want to do something like that, you're
32 looking at an MSE evaluation, and that's going to take two
33 years, and that should be put on the SEDAR calendar.

34
35 **RICHARD APPELDOORN:** That's not what we're looking for. If you
36 have a spreadsheet that can make these calculations, all we
37 would need is the back-calculations for the subset of the
38 groups, so we can look out -- Two species is not a sufficient
39 sample size. If you think you can break these things down
40 quickly, then we can have everything by July without a problem.

41
42 **ADYAN RIOS:** I think there is still some clarification for
43 tweaking the -- Running the actual rules on the data isn't the
44 hard part. It's preparing the right data, the right partitions,
45 the right time series, to then run the rule on, but the rule
46 itself still also has some clarifications, which are easy to
47 tweak, because you know whether it's the average of the sum or
48 the sum of the average, and that's easy to tweak, but there are

1 still things like that that I think -- I don't know, but maybe
2 Bill and SERO have clarified that earlier on in this call, but
3 have all of those questions that I believe were made been
4 addressed?

5

6 **RICHARD APPELDOORN:** Yes.

7

8 **ADYAN RIOS:** Okay, and so I would just need like those
9 specifics, because I was still uncertain as to whether I was
10 applying the rule with the intention, and so I can also write up
11 what I did, and then you guys will be able to confirm, but I
12 also want to make sure that I am running it with the rule as
13 intended.

14

15 There was also some -- I guess I will just mention the ones that
16 I remember now, but as to whether buffers increase when we do
17 partitions, based on the percentage, as well as how to treat the
18 zeroes. I believe I am doing it the way the SSC intended, but
19 it would be nice to know if all of that information could be
20 sent to me.

21

22 **KEVIN MCCARTHY:** Adyan, is it possible for you to -- Not right
23 this second, but before we get off the call at the end of the
24 day, for you to summarize, as a series of bullet points, the
25 issues and how you have proceeded, so that we can clarify, so
26 that everybody is thinking the same things, on the same page?

27

28 **ADYAN RIOS:** Yes, I can hop off the call and work on that and
29 then just try and get back on in the early afternoon.

30

31 **RICHARD APPELDOORN:** That sounds good.

32

33 **ADYAN RIOS:** Okay. I will talk to you guys later.

34

35 **RICHARD APPELDOORN:** I mean, it sounds like this is something
36 that can be done for July, because the main issue is splitting
37 out the species. I think, at this point, that can be done, to
38 the degree that the Science Center likes, and, if it's fairly
39 simple, that's okay, but we'll be able to look at that and be
40 able to say, okay, the general approach is good and we're going
41 to go with it.

42

43 However, for the group with red hind, be advised that there were
44 closures at some point or -- So only run the data back to that
45 year, rather than to the full extent. I mean, I think that's
46 the kind of tweaking that could go on in July. At the same
47 time, we'll be able to say, yes, we want to go with this
48 approach or no, we do not want to go with this approach, but,

1 hey, that's just my view, and I would need a motion for us to
2 move forward. Walter, you weren't ready before. Are you ready
3 now?

4
5 **WALTER KEITHLY:** I could, but I've got to think it through a
6 little bit. **I make a motion that the SSC revisit the year**
7 **sequence for St. Thomas and for determining the ACL for St.**
8 **Thomas and St. Croix at the July SSC meeting based on**
9 **information provided to us at that meeting by the Science**
10 **Center, Southeast Fisheries Science Center.** I am open to
11 friendly amendments on that, and some wordsmithing may be
12 appropriate.

13
14 **KEVIN MCCARTHY:** This isn't an amendment, per se, but this is
15 maybe the next step, and just putting this in so that we're
16 thinking about it, and that is -- That is a very general thing,
17 and we're going to have to come up with a very specific data
18 request, and so just keep that in mind.

19
20 **WALTER KEITHLY:** I realize that, yes.

21
22 **JOSEPH KIMMEL:** Walter, I will second your motion for further
23 discussion, and part of that discussion is that we could also
24 consider revisiting the year sequence for Puerto Rico, St.
25 Thomas/St. John, and St. Croix and have them all the same, so
26 maybe we could get rid of some of that perceived bias.

27
28 **WALTER KEITHLY:** I would rather not have that expansion. We
29 have not had an issue with Puerto Rico, and the issue appears to
30 be primarily with St. Croix. Again, it's the very steep
31 reduction in landings, and, again, we have it on the record
32 that, at least from our industry representative, that St. Thomas
33 landings in recent years have been pretty accurate. Again, we
34 also have it on the record that historically, going back before
35 2012 or whatever, that there were some problems with St. Croix,
36 but we have not had as major of an issue with Puerto Rico, and
37 so I don't see a need to revisit the sequence of years for
38 Puerto Rico.

39
40 **JOSEPH KIMMEL:** Graciela, could you move it down a little bit so
41 we could see the using this alternative approach pros and cons
42 that is just above what we've got there now? After the
43 question, in mine, it says pros and cons, or maybe that's my own
44 writing, but, anyway, pros for using the approach that we have
45 is that a longer time sequence of reporting landings for each
46 group decreases variability, but this term "reported landings"
47 is so variable that I'm not sure it's noticeable here.

48

1 Also, if you use what we have stated for Puerto Rico and the
2 Virgin Islands, fishers -- There will likely be higher SYLs and
3 ABCs than calculated from the 2012 to 2016, if we were to use a
4 longer approach for St. Croix and St. Thomas/St. John.

5
6 The cons would be that we're not taking advantage of the
7 improved reporting in recent years and SYLs and ABCs may not
8 reflect the true status of stocks and could result in
9 overfishing. I mean, that last statement, I think, applies for
10 almost everything we do, because of the quality of our data, and
11 this whole issue reflects the historical data quality, and I
12 guess that's the real problem.

13
14 My heart tells me that the best thing to do would be to go ahead
15 and use the 2012 to 2016 improved data quality years, although
16 that would -- I'm sure the Virgin Islands folks are going to
17 rebel against those things, because they will wind up having
18 lower ABCs and SYLs for some species than what we have now, and
19 they are going to blame it on the SSC for choosing those years,
20 and so that's why I was suggesting that, well, why don't we just
21 choose for Puerto Rico the same years that we chose for the
22 Virgin Islands as well, and, I mean, at least it would reduce
23 that part of the bias.

24
25 My problem is that the reported landings are so
26 misrepresentative of the catch that it really -- I don't think
27 the SYLs and ABCs are going to reflect the true status of the
28 stocks, and I don't know how to get around it, because the data
29 has been so bad in the past.

30
31 I really commend the Science Center, Kevin and his group and the
32 other data folks, for implementing a better data quality in the
33 Virgin Islands than what they've had before, and it's light
34 years ahead of what it used to be, but it's -- It might be,
35 right now, better than what we have for Puerto Rico, but it's
36 only for a few years, and, unfortunately, the reported landings
37 for the Virgin Islands is a little bit lower than it has been in
38 the past, or quite a bit lower than it has been in the past, and
39 so I don't know. I'm thinking out loud here and trying to
40 figure out what to do with this bad data and how to fix it.
41 Sorry to ramble, guys.

42
43 **KEVIN MCCARTHY:** Joe, just for the record, although our group
44 here at the Science Center did work in collaboration with the
45 staff down in the Virgin Islands, at least for the 2016 change,
46 that was at their request, and so, while we helped them build
47 that form, we can take no credit for the push to get better data
48 in that case. We certainly applaud their efforts, but we worked

1 with them at their instigation, and so that's just to be clear.

2
3 Graciela, I am reading through this red text that you have put
4 in there, under Motion 4, including impact of regulations, and
5 are you prepared to work with the Science Center staff to try
6 and track those down, the various regulations? You probably
7 know a lot of them off the top of your head, but it would
8 certainly speed up the process if they had a local expert.

9
10 **GRACIELA GARCIA-MOLINER:** Definitely. I was just looking at a
11 timeline that we had prepared for different things, and so, yes,
12 we have that available, and we have already prepared that for
13 the spiny lobster, and so that should be -- For the number of
14 species that we have, most of the regulations will be all-
15 encompassing.

16
17 **KEVIN MCCARTHY:** Okay. Terrific. Thank you.

18
19 **BILL ARNOLD:** Richard, from the manager/FMP preparation
20 perspective, if this is what you guys want to do, then I think
21 we can make it work, but what I would still ask that be done in
22 today's call is to make sure that you get all of the Puerto Rico
23 questions answered, so that we can prepare our Puerto Rico draft
24 environmental impact statement and fishery management plan,
25 specifically the DEIS.

26
27 That is what is really important, and we have to have these
28 questions answered before we can finish that. That is going to
29 be the template for the USVI DEISs. They will change, but there
30 won't be a lot of changing. There will be a lot of changing
31 names and some of the numbers and stuff, and so we can be
32 working on those and getting them done while the Southeast
33 Fisheries Science Center is getting ready for that July SSC
34 meeting.

35
36 Then, if at the July SSC meeting these final questions can be
37 answered, I still think we would have time to prepare the two
38 DEISs for St. Thomas and St. Croix and bring everything to the
39 August council meeting.

40
41 **RICHARD APPELDOORN:** Okay.

42
43 **BILL ARNOLD:** But, of course, you need to vote on this motion to
44 get this point settled so that the Science Center knows where
45 they are headed.

46
47 **RICHARD APPELDOORN:** I sent over to Graciela, and she's putting
48 it on the screen, the suggested data request that is the

1 information we're asking to be provided in the motion, as it is
2 now, which is Motion 6.

3
4 The data request has three things, as I see it. We want
5 estimates of SYLs and ABCs from that spreadsheet for a subset of
6 species under the two year sequence alternatives, and so that's
7 -- What that is going to require, of course, is that, for those
8 subspecies, that they do the breakdowns of the -- The protocol
9 that was used to expand those, just so we know how those numbers
10 came to be, so if we want to make suggestions for alternatives
11 that we know how they were done, and then some indicator of
12 economic activity that could potentially be used to adjust
13 buffers or scalars to account for market turndown in the Virgin
14 Islands.

15
16 Walter, you're the economist. If there's a better way to phrase
17 that, then make a suggestion, but I am following your comment,
18 which I agree with completely, that we are not looking for the
19 development of some new, esoteric thing. We're looking for what
20 are the basic indicators that are out there for economic
21 activity that economists normally should and should be readily
22 available.

23
24 **WALTER KEITHLY:** Yes, I think your basics of GNP and so forth
25 should be readily available, and, again, if the economists in
26 the Science Center can't do it, I will get something together
27 for the SSC meeting.

28
29 **RICHARD APPELDOORN:** Do we want to put in like an e.g. of GNP?

30
31 **WALTER KEITHLY:** No, I don't think you need to.

32
33 **RICHARD APPELDOORN:** Okay.

34
35 **WALTER KEITHLY:** I may just mention -- When I think about it,
36 Denise Johnson at the Regional Office has already prepared some
37 information for -- I take that back. That's for Puerto Rico
38 that she's done so far, as I recall, and so that's for Puerto
39 Rico that she's done it, and so it won't be any help to us.

40
41 **RICHARD APPELDOORN:** Other than she might have something already
42 in mind.

43
44 **WALTER KEITHLY:** I have some things in mind, but she has -- She
45 is preparing the background information on the economics of the
46 fishery for Puerto Rico, and so I may borrow some of that, too.

47
48 **RICHARD APPELDOORN:** I was not thinking of something that would

1 be the economics of the fishery, because that might in fact take
2 some doing to come up with, but I was thinking more general
3 economy of the --
4
5 **WALTER KEITHLY:** Yes, that's what it would be. It would be the
6 general economies of the island, or of the islands, and not of
7 the fisheries, because I don't even have the data for the --
8 Well, you have the same data I have for the fisheries, and the
9 question we want to ask is what possible explanations do we have
10 for the changes in landings and how much are the changes at
11 least in part due to changing economic conditions on the
12 islands.
13
14 **RICHARD APPELDOORN:** Can we move forward on a vote for the
15 motion?
16
17 **KEVIN MCCARTHY:** I am ready to vote.
18
19 **WALTER KEITHLY:** I am, too.
20
21 **RICHARD APPELDOORN:** Okay. Let's start with Walter.
22
23 **WALTER KEITHLY:** Yes.
24
25 **JOSEPH KIMMEL:** Yes.
26
27 **DOUGLAS GREGORY:** Yes.
28
29 **JORGE GARCIA-SAIS:** Yes.
30
31 **TYLER SMITH:** Abstain.
32
33 **KEVIN MCCARTHY:** Yes.
34
35 **JUAN CRUZ-MOTTA:** Yes.
36
37 **RICHARD APPELDOORN:** I am yes. **The motion carries.** We need a
38 rationale.
39
40 **JOCELYN D'AMBROSIO:** I think the rationale is clear from the
41 discussion that we had.
42
43 **RICHARD APPELDOORN:** Yes, and I would say that what I have
44 written down is the SSC was presented with this alternative year
45 sequence scenario and does not feel it has sufficient
46 information to evaluate it relative to other options, for
47 example adjustments based on economic indicators. At this
48 point, it being pretty much noon, I would recommend that we

1 break for lunch.

2

3 **JOCELYN D'AMBROSIO:** I would note that, right now, we are about
4 an hour behind schedule.

5

6 **RICHARD APPELDOORN:** Yes, but some of the other issues I think
7 are going to go quickly. Do people feel they could be ready in
8 say forty-five minutes?

9

10 **JOCELYN D'AMBROSIO:** Yes.

11

12 **RICHARD APPELDOORN:** Why don't we try to be back at -- It's a
13 little after 12:00 now, and so 12:50. All right. We are
14 adjourned for lunch.

15

16 (Whereupon, the meeting recessed for lunch on May 29, 2018.)

17

18

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19

20

May 29, 2018

21

22

TUESDAY AFTERNOON SESSION

23

24

- - -

25

26 The Scientific and Statistical Committee of the Caribbean
27 Fishery Management Council reconvened via webinar on Tuesday
28 afternoon, May 29, 2018, and was called to order by Chairman
29 Richard Appeldoorn.

30

31 **CLARIFY WHETHER TO INCLUDE AN ADDITIONAL BUFFER REDUCTION TO**
32 **ACCOUNT FOR SCIENTIFIC UNCERTAINTY RESULTING FROM THE**
33 **REALLOCATION UNSPECIFIED LANDINGS**

34

35 **RICHARD APPELDOORN:** All right. Let's get started again. I
36 think we have enough people online. The next item on the
37 agenda, which I think we can do very quickly, is to clarify
38 whether to include an additional buffer reduction to account for
39 scientific uncertainty resulting from the reallocation of
40 unspecified landings.

41

42 You can see, several lines below the start of Item 6 on page 28,
43 the language for what we were talking about. If unspecified
44 landings were less than 10 percent, we're going to ignore them.
45 If they are between 20 and 35 percent for the reference period,
46 there would be a reduction in the buffer by 0.05, and, if
47 they're greater than 35 percent, the buffer gets reduced by 0.1.

48

1 This came up because it was not clear in our last meeting
2 whether we had actually adopted that, and I would point that,
3 when I first sent out the draft of our report from that meeting,
4 I was going by what I had in my notes, which was that we had
5 discussed that, but not adopted that, and there were some
6 differences of opinion on that, and, when we got the
7 transcripts, I interpreted them to clearly say that we in fact
8 had adopted them.

9
10 Anyway, the transcript discussion is there, and we're going to
11 need a vote on it anyway, and so I don't know whether we need to
12 revisit all the discussion, but we just need to have a vote on
13 it and decide if this is adopted or not. As I said, my
14 understanding was that we were going to do this. This is only
15 for Tier 4a, remember.

16
17 **KEVIN MCCARTHY:** Right, but if we need an actual vote, and we've
18 got three people, three SSC members, who are now on the phone
19 and did not participate last time, I don't want to rehash a
20 bunch of old stuff, but, for their benefit, would it be useful
21 to at least have a little bit of discussion, if they're expected
22 to vote? If they don't vote, do we then have a quorum?

23
24 **RICHARD APPELDOORN:** They can abstain.

25
26 **KEVIN MCCARTHY:** Sure. Whatever it takes. I don't want to get
27 into a twenty-minute legal discussion.

28
29 **JOCELYN D'AMBROSIO:** I just wanted to clarify something.
30 Richard, you said it was just for 4a, but my notes from when we
31 were putting this together indicates that this would apply
32 wherever there were unspecified landings, so, if that comes up
33 in 4b, that would apply in both tiers.

34
35 **RICHARD APPELDOORN:** We really haven't discussed anything about
36 4b, and that conversation where this would apply everywhere was
37 a conversation about 4a.

38
39 **JOCELYN D'AMBROSIO:** Okay. Well, is there a reason why it
40 wouldn't apply to 4b? I mean, when you're looking at
41 potentially calculating the SYL and then ABC for some of them,
42 and I know for a lot of the species it's zero, and that's
43 something we're going to get to, but maybe that's something that
44 we should keep in our minds and understanding.

45
46 **RICHARD APPELDOORN:** I would like to revisit that when we get to
47 -- Because we're going to have to go to 4b, and we can see
48 whether we want to adopt the same thing, but, in the sense of

1 what we're talking about here, those reductions, or potential
2 reductions, are scaled to the levels of scalars that we were
3 adopting for 4a, and there is no guarantee that we're going to
4 take those.

5
6 Remember that we were using something like a 0.9 buffer as a
7 working value when we were talking about 4b species, and so
8 that's not quite in the same context, and so I don't have a
9 problem applying it to 4b, but I think we should wait until we
10 discuss 4b and then add this to that if we want to.

11
12 **JOCELYN D'AMBROSIO:** Okay.

13
14 **RICHARD APPELDOORN:** Kevin, you asked about some discussion. I
15 mean, there is discussion that is provided in the briefing book,
16 but, basically, it came up -- It came down to the fact that we
17 were already dealing with uncertainty, and then, when we add in
18 things from unspecified landings in the way that Adyan was
19 explaining this morning, you are just taking a ratio and pushing
20 it back and not knowing whether that ratio really holds, and, as
21 J.J. pointed out, there are some ways to standardize this that
22 may need to be looked at, and one way might be better than
23 another.

24
25 There is a fair amount of -- You are just introducing more
26 uncertainty here, from the scientific point of view, and that
27 was the reason for putting those things in. The actual cutoffs
28 that we had were I think was based on the -- This was based on
29 Puerto Rico data pretty much at this point, because Puerto Rico
30 data was the only one that had a back-calculation, and it was
31 based on kind of the breakdown of what we were seeing reflected
32 in the data. That is to say there was a gap between cases of 35
33 percent and greater than 35 percent, and so we were comfortable
34 having that split occur between that gap, between the 0.05 and
35 the 0.1 reduction.

36
37 If anybody wants to discuss this more, if the people who were
38 not here would like to ask some questions, feel free.
39 Otherwise, it should be a straightforward thing for a motion to
40 adopt or a motion not to adopt. As I said, my read of the
41 transcripts was that we did adopt it, but we had no formal vote
42 on that.

43
44 **WALTER KEITHLY:** Mr. Chairman, I will make a motion to adopt
45 Number 6, or however you want to put it. To adopt the
46 unspecified for 4a species. If unspecified landings are less
47 than 10 percent of the reference period total, then do not
48 adjust the baseline buffer. If unspecified landings are 10 to

1 35 percent of the reference period total, then then reduce the
2 baseline buffer by 0.05. If unspecified landings are greater
3 than 35 percent of the reference period total, reduce the
4 baseline buffer by 0.1.

5

6 **JOSEPH KIMMEL:** I will second that motion.

7

8 **DOUGLAS GREGORY:** I didn't pick up on this, but what is a buffer
9 of 0.05, actually?

10

11 **RICHARD APPELDOORN:** We have sort of a complicated formula for
12 calculating buffers after we have scaled up from the 75th
13 percentile, but, basically, that buffer is in the neighborhood
14 of, if I recall correctly, about 0.45 or 0.5, and so we're
15 bringing it back down, and this would be bringing it back down,
16 and so, by 0.1, it would be an additional 10 percent, and 0.05
17 would be bringing that ABC down by an additional 5 percent.

18

19 **DOUGLAS GREGORY:** But the baseline buffer is 0.5, and so is that
20 50 percent of the average -- Is that the average landings or 50
21 percent of the maximum?

22

23 **RICHARD APPELDOORN:** 50 percent of the -- Again, it's not
24 exactly 0.5, but of the SYL, the sustainable yield level.

25

26 **DOUGLAS GREGORY:** Okay.

27

28 **RICHARD APPELDOORN:** Which that is taken from the 75th percentile
29 and then raised up by our scalar.

30

31 **DOUGLAS GREGORY:** Okay.

32

33 **RICHARD APPELDOORN:** To get that SYL, and then we bring it -- We
34 use the buffer to get down to the ABC.

35

36 **DOUGLAS GREGORY:** Thank you.

37

38 **JOCELYN D'AMBROSIO:** Richard, just so the record is clear, on
39 the motion, if this is acceptable to Walter and Joe, could we
40 note that they are intending just for 4a and that we will
41 revisit 4b at a later time?

42

43 **WALTER KEITHLY:** I mentioned in my motion that it would be 4a.
44 I don't know if it got incorporated.

45

46 **RICHARD APPELDOORN:** For Tier 4a. If we then can move on to a
47 vote.

48

1 **WALTER KEITHLY:** Yes.
2
3 **JOSEPH KIMMEL:** Yes.
4
5 **DOUGLAS GREGORY:** Yes.
6
7 **KEVIN MCCARTHY:** No.
8
9 **TYLER SMITH:** Abstain.
10
11 **JUAN CRUZ-MOTTA:** Abstain.
12
13 **RICHARD APPELDOORN:** Is Reni online? I am voting yes.
14
15 **GRACIELA GARCIA-MOLINER:** So the motion carries. It was four
16 yes, one no, two abstentions, and one not present. The motion
17 carries, right?
18
19 **RICHARD APPELDOORN:** That's my understanding. Jocelyn?
20
21 **JOCELYN D'AMBROSIO:** Yes, that's correct. It's of the people
22 that are present and voting, and so abstentions, not voting, and
23 the people that aren't present are --
24
25 **RICHARD APPELDOORN:** That was motion what?
26
27 **GRACIELA GARCIA-MOLINER:** That was Number 7.
28
29 **RECONSIDER TIER ASSIGNMENT FOR GROUPEUR UNIT 4 IN PUERTO RICO**
30 **(PR) AND ST. THOMAS/ST. JOHN (STT/STJ) AND FOR GROUPEUR UNIT 5 IN**
31 **ST. CROIX (STX) PRESENTLY ASSIGNED TO TIER 4B**
32
33 **RICHARD APPELDOORN:** The next item is to reconsider tier
34 assignments for Grouper Unit 4 in Puerto Rico and St. Thomas/St.
35 John and for Grouper Unit 5 in St. Croix, presently assigned to
36 Tier 4b.
37
38 I was not at the meeting where the tiers were assigned, but my
39 understanding is this was based on the susceptibility, and that
40 susceptibility discussion included not only the life history
41 aspects of the species, but also the amount of protection they
42 have due to management, such as closed areas and closed seasons,
43 and so, if we were to move Grouper Unit 4 out, we would either
44 be taking it out of the control rule or we would be redefining
45 the cutoff as to where Tier 4a and 4b splits, where the split
46 between those occurs.
47
48 Personally, I don't really want to go back and adjust that, but

1 that's just my opinion. Those of you who were at that meeting,
2 and you recall that I had to leave that one rather abruptly --

3
4 **JOCELYN D'AMBROSIO:** Richard, I just wanted to clarify for the
5 record the terms, and I know they can sometimes get confusing.
6 The tier assignment, I think you said it was based on
7 susceptibility, and it was based on vulnerability, which is the
8 susceptibility and the productivity, and I know you mentioned
9 the life history, which is the productivity as well, but I just
10 wanted to clarify that we were using the vulnerability as the
11 ultimate measure, but that was those two components that you
12 specifically mentioned.

13
14 **RICHARD APPELDOORN:** Thank you. I thought the discussion that
15 was provided from the transcripts that's in the briefing book
16 was quite clear, and that's what the criteria was based on.
17 Like I said, if we're going to change this, we're either taking
18 those units out of the control rule or we are going to move the
19 cutoff point, and what would be the rationale for doing that?

20
21 **TYLER SMITH:** Is their abundance at all taken into account when
22 considering their vulnerability? Would it be potential of near
23 complete extirpation or something like that? I am thinking of
24 like St. Croix, where there is a very low abundance of some of
25 these grouper species, which I would argue is because of
26 historical fishing pressure and maybe the shape of the shelf and
27 so forth, and is that something that you can consider, that they
28 are in such low abundance, for this particular exercise?

29
30 **RICHARD APPELDOORN:** I believe that it was, but, as I said, I
31 was not there for that discussion, and so you would have to talk
32 to Joe, Reni, Kevin, or Walter, who are all very quiet at the
33 moment.

34
35 **KEVIN MCCARTHY:** I am also looking at the transcript, and I am
36 seeing Tyler's name, and so perhaps he's having -- He's not
37 recalling it any more clearly than I am, perhaps.

38
39 **TYLER SMITH:** Yes, I probably need to go back and look at the
40 transcripts, but I'm sure I brought that up. If I'm bringing it
41 up now, I'm sure that's the way I felt back then.

42
43 **KEVIN MCCARTHY:** Well, we have, somewhere, the spreadsheet of
44 how we scored this thing. Should we -- I mean, I'm with Richard
45 that I don't -- Unless we have completely missed something on
46 this, I am not sure that we're going to -- We're just going to
47 be rehashing the same discussion, I think. I mean, I don't have
48 strong feelings either way, and I'm willing to go with the local

1 experts on this, but perhaps it's useful to look at that
2 spreadsheet with the scores. Is that something you have got
3 readily at hand, Graciela?

4

5 **GRACIELA GARCIA-MOLINER:** Let me take a look.

6

7 **JOSEPH KIMMEL:** While you're looking for that, I would like to
8 make a motion, but let me discuss it a little bit here. The SSC
9 was pretty clear in its discussion about the 4b status of
10 Grouper Unit 4 in Puerto Rico and the St. Thomas/St. John for
11 Grouper Unit 4 and Grouper Unit 5 for St. Croix.

12

13 They discussed it pretty thoroughly, and you can look at the
14 briefing document and see that discussion, and it's one of the
15 more clear discussions in that whole document. I would
16 recommend that the SSC stay with its initial 4b status and go
17 with that.

18

19 **RICHARD APPELDOORN:** Before any recommendation is made, before
20 any motion is made, Doug, you wanted to make a comment?

21

22 **DOUGLAS GREGORY:** Yes, and, at the risk of being out of context,
23 when we've looked at these productivity-susceptibility
24 characteristics and scored them, I think with the NMFS system
25 and also the MRAG system, it was independent of any management
26 measures that were in place or might be in place.

27

28 It was strictly on the life history characteristics, and I
29 imagine -- I'm guessing that's the way these were done, but then
30 the council or somebody comes back and says, yes, but we have
31 this protection in place that protects the vulnerable aspects,
32 the spawning aggregations, and they're asking us to change our
33 criteria, and so it's like we're almost talking about two
34 different things, or does the management actions in place, with
35 the contingent that they stay in place, change the vulnerability
36 and susceptibility of the species? I think that's what we're
37 being asked.

38

39 **JOCELYN D'AMBROSIO:** I will just note that the discussion shows
40 that the -- At least what is excerpted, the management measures
41 factored into the susceptibility of the species, and so they
42 discussed, generally, how susceptible and then were there any
43 management measures that would be protective and then come up
44 with the susceptibility score and then separately come up with
45 the productivity score based on life history characteristics and
46 what was known about the species, and then those two together
47 went into the vulnerability score that went into the tiering.
48 You can see, on page 32, for example, they talk about

1 regulations and how protective that is.
2
3 **DOUGLAS GREGORY:** Thank you.
4
5 **JOSEPH KIMMEL:** Mr. Chairman, I would like to make a motion that
6 we stay with our original decision, SSC decision, and that is to
7 say with keeping Grouper Unit 4 in St. Thomas, St. John and
8 Puerto Rico and Grouper Unit 5 in St. Croix as 4b. Please feel
9 free to try to clarify that or reword it.
10
11 **WALTER KEITHLY:** I will second Joe's motion. I agree with him
12 that we had a thorough discussion of this at our previous SSC
13 meeting, and it's in the transcripts, and we did consider even
14 the impacts of regulation and so forth in assigning the tiers
15 for these species on the different islands, and so the council's
16 argument at their April meeting -- Let me just put it this way.
17 We did consider the issues brought up by the council at their
18 April meeting.
19
20 **DOUGLAS GREGORY:** Is the issue whether the susceptibility rating
21 is correct and, if that changes, does that change the result of
22 what tier it's in?
23
24 **RICHARD APPELDOORN:** If there was an error in calculating that,
25 that could change it, yes.
26
27 **GRACIELA GARCIA-MOLINER:** This is the file that was used to
28 score the species.
29
30 **RICHARD APPELDOORN:** This is the wording I had. It's to retain
31 the Tier 4b recommendations or assignments.
32
33 **GRACIELA GARCIA-MOLINER:** Was there a second?
34
35 **RICHARD APPELDOORN:** Was there a second to this motion?
36
37 **WALTER KEITHLY:** I seconded it, I thought, but I may have had my
38 mute on when I did.
39
40 **RICHARD APPELDOORN:** Or we were writing something and not paying
41 attention to you.
42
43 **WALTER KEITHLY:** I can understand that, too.
44
45 **RICHARD APPELDOORN:** We wouldn't voluntarily not pay attention
46 to you, but we could have been distracted.
47
48 **WALTER KEITHLY:** I don't pay attention to myself sometimes.

1
2 **RICHARD APPELDOORN:** Yes, but you know when to do that. The
3 motion is on the screen, and a yes vote would be to maintain the
4 tier assignments as they are.
5
6 **JOSEPH KIMMEL:** Yes.
7
8 **WALTER KEITHLY:** Yes.
9
10 **DOUGLAS GREGORY:** I abstain.
11
12 **JORGE GARCIA-SAIS:** Yes.
13
14 **TYLER SMITH:** Yes.
15
16 **KEVIN MCCARTHY:** Yes.
17
18 **JUAN CRUZ-MOTTA:** Abstain.
19
20 **RICHARD APPELDOORN:** I vote yes.
21
22 **GRACIELA GARCIA-MOLINER:** **The motion carries.** Where do you want
23 to go now?
24
25 **RICHARD APPELDOORN:** Did you get the rationale? I would just
26 say it's that, that the SSC notes that --
27
28 **JOCELYN D'AMBROSIO:** Graciela, is that Motion Number 8?
29
30 **GRACIELA GARCIA-MOLINER:** Hold on a second. The SSC notes --
31
32 **RICHARD APPELDOORN:** The management protections were considered
33 during Tier 4 assignments. That was Motion 8.
34
35 **GRACIELA GARCIA-MOLINER:** Do you want to go on to stock
36 complexes?
37
38 **RICHARD APPELDOORN:** What page is that?
39
40 **GRACIELA GARCIA-MOLINER:** It should be on page 26. You want to
41 do this one now, right?
42
43 **RICHARD APPELDOORN:** Well, that's the order on the agenda.
44
45 **GRACIELA GARCIA-MOLINER:** You just considered that one, the one
46 at 2:00 p.m. on page 30.
47
48 **FOR EACH STOCK COMPLEX INCLUDED IN TIER 4B, ESTABLISH A SCALAR**

1 **FOR DETERMINING SUSTAINABLE YIELD LEVEL (SYL) AND FINALIZE THE**
2 **SCIENTIFIC UNCERTAINTY BUFFER FOR SYL TO ABC**

3
4 **RICHARD APPELDOORN:** Where we are now is, in the agenda, it
5 would be now going back to Item 5, now that we know that we do
6 have a Tier 4b species. It says, for each stock complex
7 included in Tier 4b, establish a scalar for determining
8 sustainable yield level, the SYL, and finalize the scientific
9 uncertainty buffer for SYL to ABC.

10
11 This really only applies to those units we just talked about,
12 because, everything else that was in Tier 4b, we were assigning
13 an ABC of zero. It has, from our December 2017 transcripts,
14 where we were using a 0.9 from our OFL, and I actually don't
15 recall how we got our OFLs, and unfortunately, I do not have my
16 notes, because they are locked in an office that I can't get
17 into. Does anybody recall how we were playing with OFLs?

18
19 **JOCELYN D'AMBROSIO:** Weren't we following the control rule for
20 that OFL, which is the mean of the 4b landings, the year
21 sequence times the scalar?

22
23 **RICHARD APPELDOORN:** Yes, but what was the scalar?

24
25 **JOCELYN D'AMBROSIO:** At that time, we assumed it was the same as
26 what you were using for 4b.

27
28 **RICHARD APPELDOORN:** I don't think that's correct.

29
30 **JOCELYN D'AMBROSIO:** Then you didn't determine it at that time.

31
32 **RICHARD APPELDOORN:** Well, we must have had something we were
33 using as a placeholder.

34
35 **JOCELYN D'AMBROSIO:** At the end of the December meeting, I
36 believe a lot of the ABCs were set to zero for 4b species, and
37 that was -- I know I left early to catch a flight, and so I
38 wasn't participating at that point in time, and I don't know
39 that anyone asked the question of, okay, you have an ABC, but
40 the control rule also asks for an OFL, and so how will that be
41 calculated.

42
43 Then I think, at the following meeting, the February/March
44 meeting, I know I had assumed that a lot of the discussion was
45 applying across the 4a and 4b species, but, following that
46 meeting, when I was asking folks questions, it seemed like that
47 wasn't the overriding understanding, and so I think that's why
48 we're here, is that we didn't really have a process that was

1 clearly established for the scalar for coming up with what is
2 now SYL, and so the question would be do we want to use the same
3 process as in 4a to calculate the SYLs or is there some
4 different process to be used, but the control rule itself
5 obviously just says the mean times the scalar is the SYL.
6

7 **KEVIN MCCARTHY:** I have a vague recollection that the scalar was
8 one, and so, basically, the OFL was the mean, but I can't swear
9 to that, and so I wonder, Graciela, again, if you have the
10 spreadsheet where we've got -- Because we say here in the
11 transcript that we have 4b OFLs and that we take 90 percent of
12 that as the ABC, and so, if we can look at the spreadsheet,
13 perhaps we can reverse-engineer this thing to figure out how we
14 got there.
15

16 **GRACIELA GARCIA-MOLINER:** What is the date on that?
17

18 **KEVIN MCCARTHY:** That is the December SSC meeting.
19

20 **GRACIELA GARCIA-MOLINER:** The only thing I have is the file that
21 shows the tier assignment, scalar, the way that it was decided,
22 and the ABC equals zero for the 4b species. That is basically
23 it.
24

25 **KEVIN MCCARTHY:** So what about -- Did you look under the Puerto
26 Rico tab, because I am thinking that we did some things and then
27 didn't completely fill in, but maybe that's wishful thinking
28 that we at least did it for Puerto Rico.
29

30 **GRACIELA GARCIA-MOLINER:** I don't think that we --
31

32 **RICHARD APPELDOORN:** That was early on, when we were doing 0.5
33 times susceptibility.
34

35 **GRACIELA GARCIA-MOLINER:** The only thing was the things in the
36 PowerPoint presentation, where we had the discussion of the
37 changes to the ABC control rule, and -- There hasn't been much
38 on the 4b species.
39

40 **RICHARD APPELDOORN:** Well, we can certainly do that, because, in
41 that scenario right there, it ends up being one or less than
42 one, depending on which -- In St. Croix, that susceptibility was
43 two, right, according to my chart?
44

45 **GRACIELA GARCIA-MOLINER:** I don't have anything else.
46

47 **RICHARD APPELDOORN:** It seems, in our working model, when we
48 were considering 4b, we initially had it under our simplified

1 thing, which was just 0.5 times the susceptibility, and that
2 morphed into our more complicated one, which is the
3 susceptibility times the variability adjustment factor, more or
4 less, in that same ballpark, and then we were talking about a
5 buffer of 0.9 from that.

6
7 We could just say we adopt the scalar as we were using it in
8 Tier 4a and then decide whether we want to use the same buffer
9 criteria. I would say that we don't, because we're working off
10 a mean and not something off the 75th percentile. We also have
11 to address the issue, and maybe, Kevin, you can do a quick look
12 at this, but you remember, in the last meeting, we had the issue
13 about what to do with zeroes for calculating the 75th percentile,
14 and we would have the same issue with the mean.

15
16 If zeroes are really not telling us anything about what the
17 potential productivity is, if we had lots of zeroes, what do we
18 want to do with them? If we don't have the zero problem, then
19 it's not a problem and not an issue. My recollection, from
20 looking at the data, was that we in fact had no years of zeroes
21 for any of the islands and just for yellowfin alone. Is that
22 your recollection, Kevin?

23
24 **KEVIN MCCARTHY:** It certainly is my recollection for the Virgin
25 Islands. I haven't looked at the Puerto Rico data in a while,
26 but I will.

27
28 **RICHARD APPELDOORN:** I think Puerto Rico has more catch than the
29 Virgin Islands.

30
31 **KEVIN MCCARTHY:** That could very well be.

32
33 **DOUGLAS GREGORY:** What happens if an OFL is exceeded in 4b?

34
35 **RICHARD APPELDOORN:** If an OFL is exceeded -- If Bill is on the
36 phone, he could give a much more accurate answer to this, but,
37 if the OFL is exceeded, you go into an overfishing designation
38 and are required to specify a rebuilding program. That's my
39 understanding. We don't want to -- The whole thing is to not go
40 over OFL, or, in our case, SYL, and so SYL is not exactly OFL,
41 and it's not clear what that would trigger, other than at least
42 something saying you have just passed your SYL and you really
43 ought to look at what's going on, and so it gets a little vague
44 with SYL.

45
46 **DOUGLAS GREGORY:** Okay, and so, when you say you're taking the
47 mean of the landings, that's the SYL?

48

1 **RICHARD APPELDOORN:** No, the mean of the landings times the
2 scalar would be the SYL.

3
4 **JOCELYN D'AMBROSIO:** Just to clarify, in the control rule, it
5 used to speak about OFL, but that's been replaced with SYL, and
6 so, when it says OFL to ABC buffer, the way the control rule is
7 operating now is that's the SYL to ABC buffer, and so the
8 control rule isn't generating an OFL, and so the council will
9 have to consider the status determination criteria, and so how
10 we're going to figure out when there is overfishing and
11 overfished conditions, but the SYL is something that was
12 developed for Tier 4 for the Caribbean control rule.

13
14 **DOUGLAS GREGORY:** Okay. Thank you, because, when we were
15 discussing this on the Gulf Council SSC, my concern was that, if
16 you use a mean, then you're going forward in time, and you can
17 expect half of your annual landings to exceed the mean simply
18 due to random variability, and so you don't want a trigger
19 that's going to be immediate when you're got that kind of
20 uncertainty going forward as to what the landings are going to
21 be.

22
23 **RICHARD APPELDOORN:** Well, two things. Our current control rule
24 is based on the mean, and Tier 4b -- Well, it kind of grew out
25 of an initial concept of overfished versus non-overfished, or
26 overfishing versus non-overfishing. It was overfishing versus
27 non-overfishing, and it morphed from that, because we really
28 couldn't tell, in a strict sense, that you were overfishing or
29 not overfishing, because we couldn't do an assessment, and
30 that's why you're in Tier 4

31
32 That is when things went back to basing it on productivity and
33 vulnerability and susceptibility, and so the initial thing was
34 we're concerned that you are already at a point where you
35 probably want to buffer down from where you are, because that
36 was coming out of an initial scenario where we were thinking
37 overfishing. Now, we're not technically thinking overfishing
38 anymore, and we are now thinking about something is very
39 vulnerable to that fishery and we should be more cautious than
40 Tier 4a. You're right in the sense that looking at the mean
41 would have that issue, but, when we started with it, the idea
42 was that, yes, we wanted to get down below the mean.

43
44 **DOUGLAS GREGORY:** Thank you.

45
46 **KEVIN MCCARTHY:** To answer the question about yellowfin in
47 Puerto Rico, yes, we have no years of zero from 1988 forward,
48 and so there are landings every year beginning in 1988. For

1 every island, we've got landings of yellowfin in every year for
2 the current years that are our reference years.

3
4 **RICHARD APPELDOORN:** I have a question. Under 5a, there is the
5 part that says, at the April meeting, the council voted to allow
6 the SSC to increase the scalar to be less than two rather than
7 having to be less than one for Tier 4b, and that was specific to
8 Tier 4b, and is that correct?

9
10 **JOCELYN D'AMBROSIO:** Yes.

11
12 **RICHARD APPELDOORN:** Okay. The two is what's in Tier 4a, and is
13 that correct?

14
15 **JOCELYN D'AMBROSIO:** No, in Tier 4a, it is increased to three.
16 Then it's also less than or equal to in Tier 4a, and this would
17 just be less than in Tier 4b, and so less than two, but the
18 council said that they wanted the SSC to consider whether this
19 fit with the intent of the control rule, and so, accounting for
20 what you were explaining earlier, Richard, that originally it
21 was thinking overfishing, and now it's looking at relative
22 vulnerabilities, and these are more vulnerable than in 4a, and
23 is it appropriate to have a scalar that's less than two as
24 opposed to less than one, which would allow some increase,
25 potentially, over the mean?

26
27 **RICHARD APPELDOORN:** Well, the problem now is that our -- In the
28 unmodified language, the result would have to be less than the
29 mean, because you could take your scalar at one, or slightly
30 less than one, and you're getting back to the mean, and then
31 you're going to buffer down from that, but, since we're
32 multiplying by susceptibility, and susceptibility is greater
33 than one, you could take a scalar of one and you would still
34 have room to buffer down to basically back where you were, which
35 was the mean, and that was what the intent was, to kind of keep
36 those species at least where they were, unless they were really
37 bad, and then they were going to go down, whereas, in 4a, we
38 were trying to increase, to some degree.

39
40 If we took our current 4a and applied it, we're applying it to
41 susceptibilities that are running either 1.5 or two, and so you
42 would be taking your average, at this point, and doubling it, or
43 increasing it by 50 percent, and then applying a buffer of some
44 kind.

45
46 I would maintain that -- I don't think the buffers are scaling
47 the same way for Tier 4b as they would for 4a, and so I'm not
48 sure that I would apply the same buffers, but that's another

1 decision, and so, given that we can go to a scalar that is just
2 under two, that would basically allow us to apply the Tier 4a
3 scalar to Tier 4b. Is that right?

4
5 **JOCELYN D'AMBROSIO:** Richard, I have one question about going to
6 a scalar that is less than two. From a mathematical
7 perspective, it seems like, if you're using the same type of
8 scalar as in 4a, that -- The Regional Office has indicated that
9 that's what the number would need to be, and I think you were
10 maybe working that out as well.

11
12 I know we're calculating a sustainable yield level, and so I
13 think one question the SSC should consider is whether having a
14 scalar that is two or less would result in what would be
15 considered sustainable yield.

16
17 **RICHARD APPELDOORN:** I am just looking at what we have for Tier
18 4a, and the scalar is susceptibility score times the variability
19 adjustment factor, three minus the coefficient of variation, all
20 divided by three, but the CV was maxed at one, which I'm willing
21 to bet is where we are with those species, although I don't have
22 the values in front of me, but let's just assume for a moment
23 that we are, and that would be then two-thirds, and so, if our
24 susceptibility score, in the worst case, is 1.5, multiply that
25 by two-thirds and you're down to one, and then we're buffering
26 down from there. One gets you back to the mean, and a buffer
27 below that obviously gets you something still lower.

28
29 For the case of I think it was St. Thomas, with all their extra
30 protection, the susceptibility score was two, and you get up to
31 whatever two-thirds of two is, and it's a one-third increase
32 above the mean, from which we would then buffer down, and so, if
33 we had something like a buffer of 0.9, as we were using as kind
34 of our placeholder, you would actually end up with a final SYL
35 above the mean and an ABC above the mean for St. Thomas, whereas
36 Puerto Rico and the Virgin Islands, which are down at
37 susceptibility scores of 1.5, would be below the mean, because
38 the SYL would be the mean, and we would have to have at least
39 some buffer between, obviously, the SYL and the ABCs, so we're
40 not going over the SYL all the time.

41
42 This would force, presumably, a -- Well, in Puerto Rico, using
43 the data sequence we have, I am not sure this would really ever
44 come into play, because we would be using data where catches
45 were a lot higher before spawning aggregations were closed, and,
46 therefore, the catch rates have dropped so much below that that
47 I don't think we would ever exceed whatever that mean value is.

48

1 In the Virgin Islands, that is a less certain case, because of
2 the economic impacts that they've been facing, but, if we're
3 going to do either the back-calculation or some kind of
4 adjustment by economic indicator, that presumably would take
5 care of that problem as well.

6
7 Since we are now -- The council has voted to make the minimum
8 scalar less than two, instead of less than one, and we are free
9 to utilize the Tier 4a method for calculating the scalar. Does
10 anybody have an opinion on anything?

11
12 **KEVIN MCCARTHY:** I am concerned that if we end up with SYLs that
13 are above the mean that we're going against the intent of the
14 control rule.

15
16 **RICHARD APPELDOORN:** Remember the control rule intent got
17 modified sort of when we went from overfishing to
18 susceptibility, or vulnerability, and I keep getting those
19 things somewhat confused. I am not sure if that's really the
20 issue. Isn't the issue really where the ABC stands?

21
22 **KEVIN MCCARTHY:** Well, right, but what are the management
23 implications if the ABC is exceeded versus the SYL? Are there
24 two different management repercussions?

25
26 **RICHARD APPELDOORN:** Bill, are you on the line?

27
28 **BILL ARNOLD:** Neither ABC nor SYL has any real management
29 implications. The only thing that matters is the ACL.

30
31 **RICHARD APPELDOORN:** All right. ABC matters only in that the
32 ACL cannot be set higher than the ABC, and the intent is sort of
33 to get it back to the mean.

34
35 **KEVIN MCCARTHY:** Right, and I don't have -- That's not going to
36 bother me at all. I think that's reasonable. I would just -- I
37 don't want to set up a system where we've got sort of a 4a and
38 then a 4a asterisk, because we finagled the numbers in this
39 highly complicated system we've set up so that we don't provide
40 the level of harvest that we think is reasonable. I think that
41 -- Well, I don't know if we're all in agreement, but I think
42 that the intent of 4b, no matter how we -- I don't know what the
43 latest language is, but I think the intent there is that these
44 are species that we want to be careful with, however we choose
45 to get to that definition of being careful, and then to allow
46 for a system that doesn't show due concern for them, and we're
47 talking about a handful of groups here that I think everybody
48 agreed were of particular concern. Getting back to the mean,

1 it's not going to bother me. Going above the mean starts to
2 make me a little concerned that we are not doing our --
3 Providing them due caution.

4
5 **RICHARD APPELDOORN:** Okay, and let's just say, for now, the
6 scalar is going to be susceptibility, and that would set the SYL
7 at twice the mean in St. Thomas and 50 percent above the mean in
8 Puerto Rico and St. Croix.

9
10 If we then use a similar buffer as we were using in 4a, the
11 default value was 0.5, and that would bring your St. Thomas
12 group back down to the mean, and it would bring your St. Croix
13 Puerto Rico level to 10 percent below the mean, or something
14 like that. It would be 75 percent of the mean. Your best-case
15 scenario is you are back at the mean. The worst-case scenario
16 is you are at three-quarters of the mean.

17
18 As I said, I don't think that makes a difference in Puerto Rico,
19 because those levels are going to be high enough, but I think in
20 St. Croix it might, but I just don't know what the numbers look
21 like, but presumably they are all -- It depends on which
22 scenario we go with, actually, in the year sequence.

23
24 **KEVIN MCCARTHY:** Right. If we're able to get some longer series
25 in the Virgin Islands, where presumably the landings were a bit
26 higher, it may be well above the current mean of the last five
27 or six years.

28
29 **JORGE GARCIA-SAIS:** It will.

30
31 **RICHARD APPELDOORN:** Yes, but we're also talking about the
32 potential of using an economic indicator to adjust for what has
33 happened in St. Croix as well, and so we could certainly apply
34 that to 4b.

35
36 **JORGE GARCIA-SAIS:** Richard, if I may make a comment, and I've
37 said this before, but these species, the 4b species, the ones
38 that are not ABC equals zero, that already have a zero
39 collection, those, particularly the grouper groups, those were -
40 - The susceptibility of those groups has been reduced
41 dramatically over the years, after the seasonal closures for the
42 spawning aggregations were in effect, and so, by virtue of that,
43 the susceptibility of those species has been reduced
44 dramatically by management, and so, essentially -- Then, on top
45 of that, you have the socioeconomic impact of the last five or
46 six or seven years, and so that adds on to reducing the
47 susceptibility even further.

48

1 Actually, if anything, it takes into consideration the annual
2 landings of the last five or six seven years, and consideration
3 of that stretch where the catch has dramatically been reduced,
4 will have an impact on lowering the -- On having values that are
5 going to be below the mean, and so I don't know if there is
6 anything else that we should be playing around with in terms of
7 providing more protection to these species, because they are
8 already protected more than we ever thought they were going to
9 be, at least from my perspective. The annual landings of these
10 grouper species have declined so much, and for a good reason
11 being that the higher vulnerability was during the spawning
12 aggregations and now these are closed.

13
14 **RICHARD APPELDOORN:** All right, and so two comments. In the
15 sense of trying to interpret what you are saying into some
16 language here, it is that, first of all, that those reductions
17 in vulnerability, due to these management actions, was supposed
18 to be taken into account when those numbers were being assigned,
19 and the language from the transcripts clearly indicates that
20 that was in fact discussed.

21
22 The numbers that we have reflect that. However, continuing
23 along that same line that you brought up, Reni, that would argue
24 that our final product, which is the ABC, doesn't need to be
25 that conservative, because of those kinds of protections.

26
27 **JORGE GARCIA-SAIS:** I agree. That is exactly my point.

28
29 **RICHARD APPELDOORN:** Okay, and so that would say that certainly
30 SYLs can go well above the mean, and perhaps we shouldn't worry
31 too much about where the ABC is falling exactly relative to the
32 intent, which was to kind of not increase it dramatically from
33 where it currently is, and, of course, if we take, in the Virgin
34 Islands, the year sequences, that is going to drop them
35 substantially from where it currently is.

36
37 **JORGE GARCIA-SAIS:** Right, and, if you see the data from the
38 USVI, as I have, on the earlier years, where they have data on
39 groupers and snappers -- You don't know what the species, but
40 the landings reports on the groupers was really high, very high,
41 and the same thing applies to Puerto Rico, and somehow it's sort
42 of like a mirror fisheries, but the point is that the reduction
43 in this last seven or eight years has been really -- It's a
44 large-scale reduction just from the management associated with
45 the seasonal and the area closures, and so you can even look at
46 the data by -- If you go back to the USVI data, you will see
47 that, for years after the collections, they start reporting
48 lobster and conch and then snapper and grouper.

1
2 You do have an inference from the relative decline of groupers
3 across a much larger period than what we already have as a
4 reference period. That is possible. You can have that
5 inference, and you will see, as I have seen with the data, that
6 the decline, that the reduction, due very clearly to management,
7 has been significant, as in very large.

8
9 **BILL ARNOLD:** It seems to me that how you decide this sort of
10 depends upon the year sequence that you're going to use,
11 because, if you're going to use an older year sequence when some
12 of these management measures were not in place, then you've got
13 to account for those management measures, but, if you only use
14 the more recent landings data for all three islands, which is
15 what was originally proposed for Tier 4b, when you said most
16 recent three years of landings, and I am not proposing the most
17 recent three years of landings, but, if you use those most
18 recent landings and you accept that that level of landings is
19 what is now, quote, unquote, sustainable, then that average
20 should be what you're shooting for and what you don't want to
21 exceed, and, if you exceed that recent average, then that would
22 tell you that something is going on in the fishery that you need
23 to be aware of, and that's what the SYL is for.

24
25 Really, your SYL should be set right at that average, and, if it
26 exceeds it for any period of time, the council needs to be aware
27 of that. Now, what you want to set your ABC at, or at least
28 what the council wants to set their ACL at, is some level below
29 that, so that, given the amount of variability in those
30 landings, you're not constantly exceeding your ACL, so that we,
31 up here in the Southeast Regional Office, are not constantly
32 having to implement accountability measures because you set it
33 so that 50 percent of the time or more your catch is going to
34 exceed your ACL.

35
36 If your SYL is at the average, and so it's one, and they have a
37 coefficient of variation of 0.2, then you would probably want
38 your ACL -- I know you guys deal with the ABC, but you would
39 want your allowable catch level to be 0.8, roughly. Then you're
40 pretty much allowed to fish unfettered, and it would be a rare
41 event when you have exceeded the SYL.

42
43 SYL exceedances occasionally are okay, but it's when you have a
44 pattern of exceedance that you now see that something is going
45 on in the fishery that you need to understand, and so this
46 doesn't have to be complicated. It can be very simple. It can
47 be 2012 to 2016 average landings, and that equals SYL, and your
48 ABC is accounted for by your coefficient of variation.

1
2 **RICHARD APPELDOORN:** How are you doing that? I think I missed
3 that.
4
5 **BILL ARNOLD:** Like I said, if you're using your recent landings,
6 those recent landings are post all of this stuff. They are
7 post-spawning closures, and they are post-ACLs. They represent
8 fishing activity and fishing levels in the most recent term, and
9 so say for, actually any of the three islands, you use 2012 to
10 2016. That is your average, and that's what they are fishing at
11 now, and that apparently is an acceptable level.
12
13 We don't want to go above it. If we do go above it, it means
14 something is changing in the fishery, and so that's your SYL,
15 sustainable yield level, where you don't know if it's not
16 sustainable if it goes above it, but it could be, and so you
17 need to check, and that is your alert level, and, below that,
18 you set your ACL so that you are not constantly exceeding -- So
19 that your average catch is not constantly exceeding your ACL and
20 you have some safety level and you're not constantly
21 implementing accountability measures.
22
23 **RICHARD APPELDOORN:** Yes, but how are you using the CV to do
24 that, or you didn't have a CV?
25
26 **BILL ARNOLD:** Your CV is your measure of variability.
27
28 **RICHARD APPELDOORN:** Right.
29
30 **BILL ARNOLD:** It's your buffer, and so it won't -- I mean, you
31 could raise those things up, because, like I said earlier, it's
32 really the ACL that is the management point, and that's where
33 accountability measures are going to be implemented, and so
34 that's what you want to avoid, and so maybe that's not going to
35 work, ideally, at the average, because we're no longer dealing
36 with OFL, but I think you could set something that is reasonably
37 straightforward with an eye on your average catch not constantly
38 exceeding your ACL, so that we're not constantly implementing
39 accountability measures. I am not sure that I got that 100
40 percent right, but I do think that the basic approach would
41 work.
42
43 **RICHARD APPELDOORN:** My concern is, if we stay with what we have
44 at the moment for the Virgin Islands, where the landings are
45 low, we will be setting something at that mean, which really was
46 not the intent of 4b, because, when we say we want to allow some
47 increase in 4a and not in 4b, that's relative to our current ABC
48 and ACLs, which would be much higher than what the current

1 landings levels would be.

2
3 **BILL ARNOLD:** Well, yes, but that's what Reni was saying. That
4 is based on your older time series when you -- Some of these
5 protections were in place, but not all of them. I mean, if
6 you're trying to account for the present fishery in its present
7 status with the protections in place for these relatively
8 highly-vulnerable species, I would expect that for this highly-
9 vulnerable species that you're going to have landings at your
10 present mean or below it and not at your historic mean. If
11 you're putting them at your historic mean, that's probably a
12 little risky.

13
14 **RICHARD APPELDOORN:** Well, not if we're -- Remember that that
15 was the intent of 4b, was that we're not going to go beyond --
16 We shouldn't be going beyond astray from where we are now. We
17 don't know exactly where that is, because it was a grouper
18 complex that was dominated by red hind, and so what those
19 historical levels might be we don't really know for this, for
20 this particular complex, but, unless we are in fact going to go
21 with an economic indicator adjustment for the Virgin Islands,
22 which would allow us to, and perhaps for Puerto Rico, and I
23 don't know, which would allow us to then account for the
24 economic downturn without having to deal with a biological
25 situation.

26
27 **BILL ARNOLD:** I don't disagree with that, but I think that if
28 there's an economic upturn in the USVI that it won't be carried
29 by these species. It will be carried by lobster and red hind
30 and those ones that -- I think you need to be reticent about
31 being careful with these Tier 4b species and if you want their
32 catches at lower than even present average. I think you guys
33 have determined that these are highly-vulnerable species and you
34 need to be careful with them, and I am certainly personally
35 willing to argue that point in front of the council, and I
36 wouldn't hesitate.

37
38 I mean, in general, if these guys are going to harvest, we need
39 to focus their harvest on those species who have traits that
40 will support that harvest and get them off these guys. We don't
41 want them harvesting manta rays either.

42
43 **KEVIN MCCARTHY:** Graciela, do we have readily at hand -- I hate
44 to keep bugging you for digging through your files to find this,
45 but do we have readily at hand the current accepted Tier 4
46 designations and what is the definition of a 4a and what's the
47 definition of a 4b, as it stands at the moment?

48

1 **GRACIELA GARCIA-MOLINER:** The definition in writing or the
2 definition the way that you had selected using the Excel sheet
3 and all the discussion that you had?
4

5 **KEVIN MCCARTHY:** Just I think as it's written in words, just to
6 -- I mean, we're talking about the intent of the ABC control
7 rule, and let's just make sure we all know what the control rule
8 is.
9

10 **RICHARD APPELDOORN:** The control rule itself does not specify.
11 It just says that it's based on these factors, and so, when you
12 guys were going through the productivity, vulnerability, and
13 susceptibility scores, there was a decision made that everything
14 below this score was going to be 4b. I actually don't know
15 where that is, but I think it's a value of two.
16

17 **KEVIN MCCARTHY:** Right, and so I'm looking at --
18

19 **RICHARD APPELDOORN:** Or it's 2.5, perhaps, somewhere in there.
20

21 **KEVIN MCCARTHY:** Okay, and so I'm looking at some slides to the
22 management council, and, I guess, Richard, you presented this,
23 and the date is February 26 to March 2. When I look at Tier 4b,
24 there is a -- The wording is no accepted assessment, but stock
25 is likely subject to overfishing or unclear, and an SSC
26 consensus cannot be reached on the use of Tier 4a. Have we
27 strayed from that? It sounds like we have. Well, maybe we
28 haven't. I am not sure.
29

30 **RICHARD APPELDOORN:** The language reads that, for 4a, the
31 current condition for use is no accepted assessment. The stock
32 is relatively low vulnerability to fishing pressure, and a
33 stock's vulnerability to fishing pressure is a combination of
34 its productivity and its susceptibility to the fishery.
35 Productivity refers to the capacity of the stock to produce an
36 MSY and to recover if the population is depleted, and
37 susceptibility is the potential for the stock to be impacted by
38 the fishery. If SSC consensus cannot be reached on the use of
39 Tier 4a, Tier 4b should be used, and consensus was defined as
40 two-thirds of the participating SSC members. That is the full
41 language.
42

43 I think what we did is we said anything that was under
44 management was -- Well, it was going into 4b, and then, if their
45 scores were -- The reason I say that is, again, I was not here,
46 and I'm looking at the susceptibility scores, and so, for like
47 St. Thomas, we have like coney and queen conch as three for
48 their total -- Which one is the product of the other two, so I

1 have my language right?

2

3 **JOCELYN D'AMBROSIO:** Vulnerability.

4

5 **RICHARD APPELDOORN:** Yes, and so, if these were based on
6 vulnerability, and so queen conch is considered a 4b species at
7 the moment, coney, which also had a score of three, is not, and
8 so I figured queen conch was there because the EEZ in St. Thomas
9 is closed, as it is in Puerto Rico.

10

11 Everything else is at a score of two or less, and they were all
12 there because their vulnerability scores are low or because
13 they're already under management, like the big parrotfishes or
14 Nassau grouper and goliath, but they're even the lowest. In
15 Puerto Rico, it's very much the same situation, but now conch is
16 considered to be a 1.5, and so it's even lower. Anything at two
17 is all low, and coney is coming in as the next one. Excuse me.
18 Coney on this figure is wrong, because they didn't reverse the
19 susceptibility score.

20

21 **GRACIELA GARCIA-MOLINER:** But that's the only one.

22

23 **RICHARD APPELDOORN:** That's the only one, yes, and so it may be
24 then that -- But the misty grouper and yellowedge grouper, they
25 are not in 4b, yellowmouth, and, in St. Thomas, those have
26 values of three, and so it's got to be below three, at least, to
27 be a 4b, unless already under questionable management. That's
28 what it looks like, that maybe three was the cutoff. That
29 should be in the record someplace. Is that something we really
30 need to know?

31

32 **KEVIN MCCARTHY:** No, I'm just trying to get at -- If we're being
33 asked if this is consistent with the intent of the ABC control
34 rule, I just want to make sure that we all understand the ABC
35 control rule.

36

37 **RICHARD APPELDOORN:** I am really kind of thinking that we use
38 the same scalar and buffer procedures that we used for 4a, with
39 the caveat that, given the guidance from the council, that the
40 scalar could not be higher than two, and so the maximum scalar
41 would be 1.99.

42

43 **JORGE GARCIA-SAIS:** That could work.

44

45 **RICHARD APPELDOORN:** We would need a motion. Remember, for St.
46 Thomas, this would get your ABC back down to the mean, and, for
47 Puerto Rico and St. Croix, it would be at 0.75 of the mean.
48 This does leave us open the option of using that indicator

1 adjustment that we talked about in 4a, and so think of that as a
2 to-be-continued, depending on what year sequences we're going to
3 be using. Do we have separate motions on scalars and buffers?
4 I think we do. This will be a draft motion, but we need someone
5 to actually make the motion.

6

7 **JORGE GARCIA-SAIS:** There is a motion on the screen, isn't
8 there?

9

10 **RICHARD APPELDOORN:** We need someone to make that motion.

11

12 **JORGE GARCIA-SAIS:** Okay. I will read it. The SSC moves to
13 adopt the same scalar and buffer process that was used for Tier
14 4a (susceptibility score times VAF) to determine the SYL and ABC
15 for Tier 4b species.

16

17 **JOSEPH KIMMEL:** I will second the motion.

18

19 **JOCELYN D'AMBROSIO:** Just one minor note. The parentheses
20 there, it says susceptibility score times VAF, and that's
21 defining the scalar process, and so it might be clearer just to
22 say to adopt the same scalar process and then move that note
23 that it's the susceptibility score times VAF.

24

25 Then, for the buffer process, we should explain what that means.
26 Does that include accounting for all of the sources of potential
27 scientific uncertainty that are noted above, just so we're clear
28 as we go back through, and then the other question would be does
29 this motion also encompass then allowing the scalar to be less
30 than two?

31

32 **RICHARD APPELDOORN:** I thought we actually didn't have a choice
33 in that.

34

35 **JOCELYN D'AMBROSIO:** The council gave you guys a choice to say,
36 if you are defining this process and you find you need to be
37 able to have a scalar that's greater than one, you can, but they
38 wanted to make sure that it was reflecting best science and the
39 opinion of the SSC.

40

41 **SARAH STEPHENSON:** Could we potentially take "buffer" out of
42 this motion, because Item 5b discusses the buffer for 4b
43 species, whereas 5a was just the SYL?

44

45 **JOSEPH KIMMEL:** That's good for the seconder.

46

47 **RICHARD APPELDOORN:** That's what I was asking before, because --
48 Just because there was only motion thing listed here, but there

1 were two parts, and so I was wondering whether we had to have
2 two or one, and, since I saw only one motion, I was thinking we
3 only had to have one, but we can split it.

4

5 **JOCELYN D'AMBROSIO:** Right. You can have multiple motions.

6

7 **RICHARD APPELDOORN:** Right, and so the first one is going to be
8 the same scalar process. Who seconded the motion? Was it Joe?

9

10 **JOSEPH KIMMEL:** Yes.

11

12 **RICHARD APPELDOORN:** Jocelyn, would you be more comfortable in
13 our dealing with the control rule language alteration that
14 allows us to use a scalar of up to but slightly less than two in
15 this motion or a separate motion?

16

17 **JOCELYN D'AMBROSIO:** I think whatever makes the most logical
18 sense for the SSC. It seems like you could put it together if
19 that's the reason why you would want to have it at two, if
20 they're linked, or you could have it as a separate one and say
21 it follows from the first motion, if that's the rationale.

22

23 For the related questions, in the room here, there was some
24 question about that it means to use the same scalar process, and
25 so if we could just clarify that for the record. My
26 understanding is that just means, what's in parentheses, that
27 you would use the same process for setting the scalar, using the
28 susceptibility scores times the variability adjustment factor.

29

30 **RICHARD APPELDOORN:** Correct.

31

32 **JOCELYN D'AMBROSIO:** But it wouldn't change what you're
33 multiplying the scalar by, and so the difference between the
34 tiers would be still that you're looking at the 75th percentile
35 for the reference period for 4a, and you're looking at the mean
36 in 4b, and then the catch would be different in both tiers as
37 well, but I just wanted to make sure that's everyone's
38 understanding, just for clarity for the record, because, again,
39 there were some questions that came up in the room here.

40

41 **SARAH STEPHENSON:** Just one more clarification. Can we put
42 "scalar setting process", just so we know?

43

44 **RICHARD APPELDOORN:** Sure, and that is better. Reni, do you
45 accept the changes?

46

47 **JORGE GARCIA-SAIS:** Yes, no problem.

48

1 **JOSEPH KIMMEL:** Yes.
2
3 **RICHARD APPELDOORN:** Okay. Let's go to a vote. Reni, you
4 started this, and so your vote.
5
6 **JORGE GARCIA-SAIS:** Yes.
7
8 **JOSEPH KIMMEL:** Yes.
9
10 **WALTER KEITHLY:** Yes.
11
12 **DOUGLAS GREGORY:** I am going to have to abstain until I can get
13 a better understanding of all of this. Sorry.
14
15 **TYLER SMITH:** Yes.
16
17 **KEVIN MCCARTHY:** I think I'm going to have to abstain as well.
18 This is a little rushed for me.
19
20 **JUAN CRUZ-MOTTA:** Same. Abstain.
21
22 **RICHARD APPELDOORN:** I vote yes.
23
24 **GRACIELA GARCIA-MOLINER:** Five yes.
25
26 **RICHARD APPELDOORN:** **The motion carries.** Do you want a
27 rationale? Was this Motion 8?
28
29 **GRACIELA GARCIA-MOLINER:** That is 9.
30
31 **JORGE GARCIA-SAIS:** Maybe you would like to add that the scalar
32 value would fall below two.
33
34 **RICHARD APPELDOORN:** We have that. Maximum scalar is less than
35 two.
36
37 **JORGE GARCIA-SAIS:** Okay. Fine.
38
39 **RICHARD APPELDOORN:** All right. We need a separate motion on
40 buffer.
41
42 **JORGE GARCIA-SAIS:** A vote not to apply a buffer?
43
44 **RICHARD APPELDOORN:** No, to apply the same buffer setting
45 process.
46
47 **JORGE GARCIA-SAIS:** From what I heard, I believe that Jocelyn
48 was mentioning that we would not need a buffer in this case.

1
2 **RICHARD APPELDOORN:** You have to have a buffer.
3
4 **JOCELYN D'AMBROSIO:** I apologize if that was -- If that was the
5 understanding. I was referencing on page 27 of the briefing
6 document, and those were some of the sources of scientific
7 uncertainty, and so some of the question was are we going to
8 consider those sources here and then how is that going to factor
9 into how you set the scientific uncertainty buffer, and then one
10 thing that we talked about earlier that we haven't yet circled
11 back to is any unspecified that are allocated.
12
13 **RICHARD APPELDOORN:** Yes, that will be the next motion.
14
15 **JOCELYN D'AMBROSIO:** Okay. Great.
16
17 **JORGE GARCIA-SAIS:** Okay. I'm fine.
18
19 **RICHARD APPELDOORN:** All right. We need someone to make this as
20 a motion.
21
22 **JORGE GARCIA-SAIS:** **The SSC moves to adopt the same buffer**
23 **setting process that was used for Tier 4a to determine the ABC**
24 **for Tier 4b species.**
25
26 **SARAH STEPHENSON:** Can we just clarify what does the buffer
27 setting process mean in this scenario? Is that just the
28 criteria that was used, or is there something else?
29
30 **RICHARD APPELDOORN:** I think, actually, it means that you are
31 applying the default buffer, which is 0.5, is what that would
32 really work out to be.
33
34 **JOCELYN D'AMBROSIO:** Could we reflect that then in the motion,
35 just so it's clear for the record?
36
37 **RICHARD APPELDOORN:** What I would do is copy this whole thing,
38 but don't put it into the thing. Put an asterisk and then have
39 it reference that.
40
41 **GRACIELA GARCIA-MOLINER:** So the whole thing, including the
42 asterisk?
43
44 **RICHARD APPELDOORN:** Yes. I suppose you can't use an asterisk,
45 because we have already used that. Use some other -- That is
46 what we passed as the Tier 4a.
47
48 **JOCELYN D'AMBROSIO:** I just have one question about -- Does that

1 mean that you would currently look at essentially modifications
2 then? Would that be the next step, so that it would be the 0.5
3 buffer and then we would go through the species in 4b and make
4 the modifications as necessary?

5
6 **RICHARD APPELDOORN:** Well, we could do one of two things. If we
7 really don't think at this point that we want to -- Well, are we
8 talking about just these groupers, or are we talking about a
9 standard? If we were talking about a standard, we would leave
10 all this in, and then we would say, for these three species,
11 it's the default. If we are just talking about these species,
12 then we should just put in the motion that we recommend -- By
13 the same buffer setting process, we would go, i.e., buffer
14 equals 0.5.

15
16 **JOCELYN D'AMBROSIO:** I guess, if you're speaking about a
17 process, it's clear to sort of state it this way, as setting
18 forth a process you're going to do and then apply it, and so you
19 could say, for these three species, we would do this default, if
20 that's the SSC's opinion, and then, for 4b species, if it was
21 zero, you could discuss specifically how you got to zero from
22 the SYL. One of the questions in here was would the buffer then
23 be zero, for example, and so that would allow you to go through
24 and make sure that we've got a decision and rationale for
25 everything in 4b.

26
27 **RICHARD APPELDOORN:** Well, the only thing I can think of -- I
28 mean, I would like to keep it this way, because we're going to
29 then have a motion on whether we're applying the uncertainty
30 buffers from unspecified species to 4b.

31
32 **JOCELYN D'AMBROSIO:** Yes, I agree that I think it makes sense to
33 have it setting forth the process and then you have another
34 motion that would add to the process, potentially, and then you
35 could apply the process.

36
37 **RICHARD APPELDOORN:** All right, and so it stays as it's written.
38 We need a second.

39
40 **JOSEPH KIMMEL:** I will second it.

41
42 **RICHARD APPELDOORN:** Then a vote. Reni, you made the motion,
43 and so you go first.

44
45 **JORGE GARCIA-SAIS:** Yes.

46
47 **JOSEPH KIMMEL:** Yes.

48

1 **WALTER KEITHLY:** Yes.
2
3 **DOUGLAS GREGORY:** I abstain.
4
5 **TYLER SMITH:** Yes.
6
7 **KEVIN MCCARTHY:** No.
8
9 **JUAN CRUZ-MOTTA:** Abstain.
10
11 **RICHARD APPELDOORN:** I vote yes.
12
13 **GRACIELA GARCIA-MOLINER:** Five. **The motion carries.**
14
15 **RICHARD APPELDOORN:** Then it would be the same motion that was -
16 - It was the unspecified landings reduction.
17
18 **GRACIELA GARCIA-MOLINER:** So you want to go to Item 5, and this
19 will be Motion 11.
20
21 **RICHARD APPELDOORN:** All right, and so we need to make a
22 decision on unspecified landings for 4b species, should this
23 situation come up. Copying what we did for 4a, we now have a
24 draft motion up on the screen, and we need someone to actually
25 make this a motion.
26
27 **WALTER KEITHLY:** Mr. Chairman, since I made the original motion
28 with respect to species in Tier 4a, I will make this motion,
29 Motion 11.
30
31 **RICHARD APPELDOORN:** We need a second.
32
33 **JOSEPH KIMMEL:** I'll second it.
34
35 **RICHARD APPELDOORN:** All right. Let's go to a vote, starting
36 with Walter.
37
38 **WALTER KEITHLY:** Yes.
39
40 **JOSEPH KIMMEL:** Yes.
41
42 **DOUGLAS GREGORY:** Abstain.
43
44 **JORGE GARCIA-SAIS:** Yes.
45
46 **TYLER SMITH:** Abstain.
47
48 **KEVIN MCCARTHY:** I think I voted no the first time, and so, for

1 consistency, I will stick with no.
2
3 **JUAN CRUZ-MOTTA:** Abstain.
4
5 **RICHARD APPELDOORN:** I vote yes.
6
7 **GRACIELA GARCIA-MOLINER:** So four yes, one no, and three
8 abstentions. That carries, no?
9
10 **RICHARD APPELDOORN:** I would say yes. Jocelyn, that carries?
11
12 **JOCELYN D'AMBROSIO:** Yes.
13
14 **RICHARD APPELDOORN:** The rationale would be the same as the
15 previous one.
16
17 **WALTER KEITHLY:** Mr. Chairman, I hate to bring this up at this
18 point, since I was the one that made this motion, but I'm having
19 second thoughts, now that I think about it. Part of the problem
20 is we don't know what years we will be using for the Virgin
21 Islands, and, with Puerto Rico, we actually had at least some
22 landings going way back. As I recall we did for each individual
23 species.
24
25 For the Virgin Islands, prior to 2012, we often just had the
26 aggregated, and Kevin can correct me, but they sometimes go back
27 farther, with the pot fish and so forth, and just, on second
28 thought, I wonder if that's going to lead to any additional
29 issues with the 4b species.
30
31 **RICHARD APPELDOORN:** I don't think so, because we were dealing
32 with Puerto Rico, where we had species-specific data, but we
33 also had a huge amount just listed as, for instance, grouper or
34 snapper or something like that, and that's exactly the situation
35 we would be facing if we used the old data in the Virgin
36 Islands, even more so.
37
38 **WALTER KEITHLY:** Well, that's the key, the even more so.
39
40 **RICHARD APPELDOORN:** Whether it trips the situation into
41 invoking the reduction depends on how much unspecified is going
42 into there, but I would suspect, from the levels we're talking
43 about, if we did this, it would be invoked in every case.
44
45 **WALTER KEITHLY:** Okay. I think what we're going to find out is
46 that we're going to have -- If we decide to go back before 2012
47 for the Virgin Islands, we're going to get a lot of those cases
48 where we have the unspecified landings that are greater than 35

1 percent of the reference period.
2
3 **RICHARD APPELDOORN:** Right, but we're also going to -- We had a
4 lot of concerns about the data, and one of them was this idea of
5 the overreporting, and so, if that's really an issue --
6
7 **WALTER KEITHLY:** Yes, that's true.
8
9 **RICHARD APPELDOORN:** Then we should buffer it down, and you're
10 still going to get a value that's going to be I would say
11 substantially higher than what we would be getting under what we
12 have at the moment.
13
14 **WALTER KEITHLY:** Okay. You convinced me. Thank you.
15
16 **RICHARD APPELDOORN:** I would like to take a quick, five-minute
17 break, if that's agreeable to everyone.
18
19 **KEVIN MCCARTHY:** Rich, that's perfectly fine with me. Is it
20 possible to fit into the schedule, after this break, a moment
21 for Adyan to get on the line? I know she has a number of
22 questions that she wants to clarify for her analyses, and I just
23 wanted to give her a heads-up, and so she's right now working on
24 other things and not listening to the call, and so, if not right
25 after, when can I let her know that we might have time for her?
26
27 **RICHARD APPELDOORN:** Let me just go back to our agenda here. We
28 have the St. Croix, and then the following two I think are going
29 to be very, very short.
30
31 **KEVIN MCCARTHY:** However we can best do it, and I don't know
32 what time she normally leaves, and so I would hate for her to
33 have to hang around, particularly if we run late, just so that
34 she can have us on the phone to clarify a few issues that she's
35 got, and now we've changed some of the rules as well, and so I
36 think she would like to actually speak to folks and make sure
37 everybody is clear on how she's going to proceed.
38
39 **RICHARD APPELDOORN:** I have no problem with doing this
40 immediately after the break.
41
42 **KEVIN MCCARTHY:** Okay. I will let her know to be on the phone
43 in about five minutes.
44
45 **RICHARD APPELDOORN:** All right.
46
47 (Whereupon, a brief recess was taken.)
48

1 **RICHARD APPELDOORN:** Hopefully we're all back.
2
3 **ADYAN RIOS:** I'm on the call.
4
5 **RICHARD APPELDOORN:** Okay. Take it away, Adyan.
6
7 **ADYAN RIOS:** I've got some of my notes here with the topics that
8 I just want to make sure that I'm clear on in blue, and so there
9 is three basic steps. The first is just setting up the proper
10 time series, and the second is having the right indicators,
11 buffers, and susceptibility scores, and then the third step is
12 running it.
13
14 I think, as I'm understanding it, you guys are basically
15 interested in these two methods, and we can call Method A just
16 the kind of status quo, or the one that is 2012 to 2015. There
17 is a question that I have about the unspecified that I will get
18 to in a moment.
19
20 Method B1 is using the earlier period, and so I think that's the
21 second time series that you guys are referring to, using the
22 recent ratios. Then the potential B2 is similar, using TIP, but
23 there is a complication with TIP that I will get to.
24
25 First, for the Method A, which this question also applies to
26 Puerto Rico, I believe that we said that we would partition or
27 assign unspecified when the unspecified unit made up more than 1
28 percent, and so I have some examples. For example, in St.
29 Croix, 3 percent, and there is the triggerfish unspecified made
30 up 3 percent of all of the triggerfish landings. Within the
31 specified triggerfish, it was 100 percent queen triggerfish, and
32 so, that one, we don't really need to partition it, because it's
33 a 100 percent partition. That would just assign that all
34 unspecified triggerfish are queen triggerfish.
35
36 It's similar for squirrelfish in St. Croix, and it's similar for
37 triggerfish in St. Thomas, and then the case for grunts, where
38 it's greater than 1 percent. It's only 2 percent of the family
39 unspecified, but, here, the partition does make a difference,
40 because there are a few species of grunts recorded, even though
41 white grunt makes up the most of it, and so that's just an
42 example of what I mean by partition or assign, when I say that,
43 and that plays a role into how we prepare the data for applying
44 the rule, and so is partition or assign unspecified when greater
45 than 1 percent correct?
46
47 **RICHARD APPELDOORN:** That is how we currently have it, yes.
48

1 **ADYAN RIOS:** Okay, and I think the way we currently have it too
2 is there is -- We will get to the additional buffer later, but
3 the additional buffer for partitioning I think would only apply
4 to partitioning, because, when it comes to assigning, we're
5 fairly confident that the majority of the species is made up by
6 a single -- The majority of these unspecified are made up by a
7 single unit, because, here, given the rule that I believe you
8 guys had, there would be no additional buffer reduction for any
9 of these, but there would be potentially a buffer reduction for
10 the 80 percent squirrelfish being completely assigned to
11 longspine, and so we'll get to that later, but I just wanted to
12 explain how I'm using that terminology.

13
14 Method B1, for using the earlier years, the idea would be to
15 develop partitioned time series by species, and this only works
16 for groups that were on the forms, and I have listed those here,
17 and so the two species that this is not possible for, or units,
18 are angelfish and squirrelfish, which weren't on the form until
19 2011.

20
21 For the groupers, snappers, and parrotfish, those we can
22 partition based on the recent ratios, and I just wanted to
23 clarify that I am using ratios after summing over all of the
24 years, and I think that's simpler, but, if you wanted, those
25 ratios could be annual ratios, and then I could use the mean of
26 those annual ratios, but that is how I am currently -- That's
27 how I've currently understood it.

28
29 Then I have added in here kind of what I think the direction is
30 that you're going, which would be to revise later based on
31 auxiliary information, like regulations or the economy, things
32 like that.

33
34 B2 is very similar to B1, but it would be using the TIP data.
35 However, I found -- I had been looking into TIP ratios by
36 numbers, and I realized, as you guys pointed out, to look into
37 the weights, and not all of the lengths in the TIP data have a
38 weight, and so the complication is that this would be a more
39 intensive analysis, in that we would also have to come up with
40 average weights to potentially wholesale the numbers of species
41 that were measured but not weighed.

42
43 **RICHARD APPELDOORN:** You do have lengths, and so you could do a
44 length-weight conversion?

45
46 **ADYAN RIOS:** Yes, but I would have to get the formula for all of
47 the species.

48

1 **RICHARD APPELDOORN:** That's what you were saying.
2

3 **KEVIN MCCARTHY:** Adyan, I have heard from Shannon at lunch today
4 that you all are not prepared to have Method B2 completed before
5 the July meeting, and so, as far as the July meeting goes, as I
6 understand it, that one is not on the table.
7

8 **ADYAN RIOS:** Right, and so, for B1, just for clarifying, this
9 wouldn't be possible for angelfish or squirrelfish, and I guess,
10 if there is any preference as to how I am developing the ratio
11 is what I would need clarification for in your request.
12

13 **KEVIN MCCARTHY:** I think also that hogfish were not on the
14 forms.
15

16 **ADYAN RIOS:** Hogfish are not on the form, correct, until 2016.
17 I will get rid of B2 for now.
18

19 **RICHARD APPELDOORN:** I thought you were only using B2 as kind of
20 a check on B1, and so I didn't realize that you were talking
21 about using the TIP data as a whole separate thing, and so, on
22 the one hand, I don't have any problem with you removing it, but
23 I don't know if there would be a way just if -- If there is a
24 species group that you think is problematic in that assumption,
25 then you could go to TIP to check it, but you certainly wouldn't
26 want to do it for everything.
27

28 Maybe that's not something we need for July. It may be
29 something that could be done afterwards as a final, but, because
30 in July we want to know whether -- We want to get close enough
31 to know whether we want to go with one or the other, but it can
32 be fine-tuned slightly one way or the other after that, because
33 it's not going to change the principle.
34

35 **ADYAN RIOS:** Right, and so I guess we would be operating under
36 the default of Method B1, using those recent ratios, except
37 where those recent ratios give us cause for concern, carrying
38 back over this period, and then we would consult additional data
39 is kind of what I am interpreting as a way forward.
40

41 **RICHARD APPELDOORN:** Yes, your last line there of revisit years
42 based on auxiliary information fits in that.
43

44 **ADYAN RIOS:** Okay, and so Step 2 is to kind of just be reading
45 in the right instructions and so knowing what is the indicator
46 of the respective units, knowing what its associated
47 susceptibility scores are, and knowing what the buffers are.
48 Those, we have tables, and so it's just important that those are

1 correct. If we have an inverse susceptibility score that's not
2 inverted or something like that, that has shown to give a
3 surprising result, and so this just needs to also be, hopefully,
4 vetted and the most accurate table of susceptibility scores and
5 base buffers provided.
6
7 Step 3 is actually running the code, and one question I have is
8 have you clarified whether to combine annual landings when there
9 is more than indicator and then obtain a combined SYL?
10
11 **RICHARD APPELDOORN:** Yes, we have.
12
13 **ADYAN RIOS:** That is correct?
14
15 **RICHARD APPELDOORN:** The vote was to combine the data for the
16 indicators and then calculate a single SYL and single ABC using
17 that combined data.
18
19 **ADYAN RIOS:** Okay. Great. So run this even when the landings
20 are very low? Did you guys come up with a lower bound on when
21 an SYL -- Like when you have less than 1,000 pounds?
22
23 **RICHARD APPELDOORN:** It was not on the agenda, and so that's
24 probably something that will be done in July.
25
26 **ADYAN RIOS:** Okay. I mean, it's --
27
28 **BILL ARNOLD:** It's really a council decision.
29
30 **ADYAN RIOS:** Okay, and so I will just --
31
32 **JOCELYN D'AMBROSIO:** I was just going to say it's something the
33 council was considering when they were looking at the criteria
34 for the species to be managed, and so I know that's something
35 they are trying to think about.
36
37 **RICHARD APPELDOORN:** It might be worth having some runs so we
38 know -- To have something to look at.
39
40 **ADYAN RIOS:** All right. Do not include years with zeroes? We
41 are moving forward without the zeroes, correct?
42
43 **RICHARD APPELDOORN:** That's the current language, yes.
44
45 **ADYAN RIOS:** Okay. For Puerto Rico, exclude the 2005 commercial
46 data?
47
48 **RICHARD APPELDOORN:** We actually -- For 4a, that's the language.

1 For 4b, we did not address that yet.
2
3 **ADYAN RIOS:** Okay.
4
5 **SARAH STEPHENSON:** Richard, would that be considered in the same
6 scalar setting process?
7
8 **RICHARD APPELDOORN:** No, because it had to do with the 75th
9 percentile. As a practical matter, we did go through and say
10 there are no zero years for the three 4b groups that we have,
11 and so, as a practical matter, it doesn't make a difference, but
12 we can come back to that for 4b, but it's not something we have
13 explicitly expressed.
14
15 **ADYAN RIOS:** Okay. These are pretty straightforward. Exclude
16 the 2005 commercial data in Puerto Rico.
17
18 **RICHARD APPELDOORN:** Yes.
19
20 **ADYAN RIOS:** If the CV is greater than one, then fix the CV at
21 one for 4a.
22
23 **RICHARD APPELDOORN:** It's now 4a and 4b.
24
25 **SARAH STEPHENSON:** That was a question that I was going to ask
26 to clarify. Is that part of the scalar setting process, fixing
27 the CV at one?
28
29 **RICHARD APPELDOORN:** Yes, it was.
30
31 **SARAH STEPHENSON:** Because that was part of the VAF, correct?
32
33 **RICHARD APPELDOORN:** Correct.
34
35 **ADYAN RIOS:** Apply buffer reductions when allocating landings,
36 when allocating or partitioning, and so this is the additional
37 reduction due to the partitioning. Is that something that we're
38 moving forward with? Is that only for 4a?
39
40 **RICHARD APPELDOORN:** No, that's for 4a and now for 4b.
41
42 **ADYAN RIOS:** You have the numbers, like the ranges and the
43 buffer reductions?
44
45 **RICHARD APPELDOORN:** Yes, they were as originally specified,
46 which was --
47
48 **SARAH STEPHENSON:** It's less than 10 is zero, 10 to 35 is an

1 additional 0.05, and anything greater than 35 is an additional
2 0.1. It's the same as what we discussed at the February/March
3 meeting.
4
5 **RICHARD APPELDOORN:** Correct.
6
7 **ADYAN RIOS:** What is the second range?
8
9 **KEVIN MCCARTHY:** I think it's 10 to 35 is 0.05.
10
11 **SARAH STEPHENSON:** It's on page 28 of the briefing document.
12
13 **ADYAN RIOS:** Okay. The last one here is the equations that I'm
14 using, and so, for 4a, SYL is the 75th percentile times the
15 inverse susceptibility score times three minus CV over three,
16 and the ABC is the buffer -- I put Buffer2, to show the buffer
17 reduction, as needed, times the SYL, and I think that, for 4b --
18 This is what I currently have, but I just wanted to get more
19 clarification on what SYL is for 4b. Are we using the scalar?
20
21 **RICHARD APPELDOORN:** Yes, and so 4b would be the same as 4a,
22 except it uses the mean and not the 75th percentile, and so it's
23 still multiplied by the -- That's mean. There you go.
24
25 **ADYAN RIOS:** Okay. Cool. I was just mixing up terminology, as
26 far as susceptibility score and scalar, but the scalar is the
27 inverse susceptibility score. Okay, but this part is no longer
28 there, right?
29
30 **RICHARD APPELDOORN:** No, it's there. It's still there.
31
32 **ADYAN RIOS:** Okay, and so does this look correct?
33
34 **RICHARD APPELDOORN:** Yes.
35
36 **ADYAN RIOS:** Okay. Those were all of the questions that I had
37 for just wrapping up the tool that I have. I think that's
38 everything that I wanted to bring up.
39
40 **SARAH STEPHENSON:** Adyan, real quick, the years should be 2012
41 to 2016.
42
43 **ADYAN RIOS:** Thank you.
44
45 **SARAH STEPHENSON:** Method B1 is going to change. St. Croix
46 started actually in 1999, and so --
47
48 **ADYAN RIOS:** Actually, I looked into the start year for that.

1 In those earlier years, they are still reporting a lot of just
2 fish, and so a large portion of landings are very unspecified
3 and not even at the family level, but at the like -- Looking
4 into what is reported at these levels, it doesn't become really
5 consistent until 2000.

6

7 **SARAH STEPHENSON:** That's for both islands?

8

9 **ADYAN RIOS:** Yes, and I can document that when I summarize my
10 method into why 2000 and why some major groups of unspecified
11 are removed to being a few percent after 2000.

12

13 **BILL ARNOLD:** So you're going to use 2016 for your ratios too,
14 right, down there on that second-to-last line?

15

16 **ADYAN RIOS:** Yes. Checking the details, that's good.

17

18 **BILL ARNOLD:** I am not disagreeing with you, Adyan. In fact, I
19 think it's great that you looked at it, but, when we did the
20 2010 amendment, the Science Center was the ones that said that
21 the landings stabilized to group in 1999 for St. Croix and in
22 2000 for St. Thomas.

23

24 **ADYAN RIOS:** Okay. The groups are in those two earlier years,
25 but the unspecified fish, the just boney fish, remains a large
26 component, and so I can just leave it as 1998, or I can --

27

28 **BILL ARNOLD:** There was never 1998. It was always 1999 and
29 2000. I don't mind, but I just need to make sure I've got the
30 rationale, so that, when I write this up, I'm writing it up
31 correctly. Right now, I've got it written up as 1999, and so
32 I'll have to change that, which is fine, but I just need to make
33 sure that I've got the rationale correct.

34

35 **SARAH STEPHENSON:** The rationale for 2010 as the terminal year
36 was because of the form change in 2011, correct?

37

38 **ADYAN RIOS:** Correct.

39

40 **RICHARD APPELDOORN:** Correct.

41

42 **KEVIN MCCARTHY:** Right, and so you've got a half-a-year with
43 species-specific information and half-a-year with those higher
44 taxonomic level reporting. I had another question. Were we not
45 concerned with, for some of these species groups, that
46 management history might play a role, or does that not come into
47 play between 2000 and 2010?

48

1 **RICHARD APPELDOORN:** That is the line under revisit years later
2 based on auxiliary information.
3
4 **KEVIN MCCARTHY:** Okay.
5
6 **RICHARD APPELDOORN:** So, right now, we don't want to bog down
7 Adyan in trying to deal with those nuances. We want to get an
8 idea whether we're in the ballpark.
9
10 **KEVIN MCCARTHY:** That makes sense to me. I just wanted to make
11 sure we're all on the same page, and apparently I missed that
12 part of the discussion.
13
14 **RICHARD APPELDOORN:** All right, and so I have the question on
15 those starting years again, and so the year they started, they
16 would have a half-a-year of -- I don't know what you call that
17 data, but the catch reports would have started say in St. Thomas
18 in 2000, and so they really wouldn't have a full year until
19 2001.
20
21 **KEVIN MCCARTHY:** No, they -- We can go back to 2000, because
22 they began this in the middle of 1999.
23
24 **RICHARD APPELDOORN:** Okay. No problem then.
25
26 **KEVIN MCCARTHY:** Yes, and, Bill, back to your question, I don't
27 remember what we told you back in the day, but I suspect that
28 what we were looking at was when did they have a standard form,
29 and that began in St. Croix in the middle of 1999, and so that
30 1999, presumably, if everybody was using the most up-to-date
31 form at that point, which apparently they weren't, that was the
32 basis of -- They are now reporting to species group, but it
33 turns out that I guess there were enough folks still reporting
34 with the old forms that we still had some holdover there, and so
35 that's why Adyan is seeing this boney fish caught in fish traps
36 kind of information in 1999, is my guess.
37
38 **ADYAN RIOS:** Boney fish is not one we want to partition, because
39 a lot of fish go into boney fish.
40
41 **BILL ARNOLD:** I have no problem with that. I just want to make
42 sure that I'm clear.
43
44 **ADYAN RIOS:** I will include that in the summary, because the
45 summary also is going to be able to tell you what those ratios
46 are, so that, if any of them need to be manually overridden, we
47 can do that.
48

1 **KEVIN MCCARTHY:** Can we go back and look at the formulas again
2 for a second? I just had a quick question about 4b. Those
3 threes in 4a, are those not the maximum scalar, or that's the
4 maximum susceptibility score?
5
6 **RICHARD APPELDOORN:** It's the maximum -- It's the susceptibility
7 score, but the scalar cannot exceed 1.99 for 4b.
8
9 **KEVIN MCCARTHY:** For 4b, right. Okay, and so those threes are
10 the max susceptibility scores in the three minus CV divided by
11 three?
12
13 **RICHARD APPELDOORN:** Yes.
14
15 **KEVIN MCCARTHY:** Okay.
16
17 **RICHARD APPELDOORN:** Adyan, the max scalar in 4b is 1.99.
18
19 **SARAH STEPHENSON:** For 4a, the max scalar is the less than or
20 equal to three, and so we could say that it's three, if we
21 wanted to add that in.
22
23 **BILL ARNOLD:** When the council talked about the max scalar for
24 4b, they said less than or equal to two, I think.
25
26 **RICHARD APPELDOORN:** The briefing document says less than two.
27
28 **BILL ARNOLD:** That's fine. I just wanted to make sure that I
29 was clear.
30
31 **RICHARD APPELDOORN:** For 4a, that value is three.
32
33 **BILL ARNOLD:** Okay, and so it's less than or equal to 1.99.
34 It's less than two is what it really is.
35
36 **RICHARD APPELDOORN:** No, that one was less than or equal to.
37 Now it's good as is.
38
39 **BILL ARNOLD:** Adyan and Richard, the task for the July SSC
40 meeting is to only do this for the USVI, correct? We are not
41 redoing Puerto Rico, but she just needs to know what the code is
42 for calculating Puerto Rico.
43
44 **RICHARD APPELDOORN:** In terms of looking at year sequences, yes.
45 This is strictly a Virgin Islands issue.
46
47 **BILL ARNOLD:** You're set with Puerto Rico, right? I need to
48 know that, because I'm in the middle of writing up the DEIS.

1
2 **RICHARD APPELDOORN:** Right, but she has it here because this is
3 the code for everything.
4
5 **BILL ARNOLD:** Yes, and that's what I was asking, and I just
6 wanted to make sure.
7
8 **KEVIN MCCARTHY:** Bill, do you have all the information you need
9 for Puerto Rico, or you're expecting something from us?
10
11 **BILL ARNOLD:** Anything that I was expecting from you, we have
12 cleared up today, as far as I know.
13
14 **ADYAN RIOS:** 4b in Puerto Rico will change, because I had it set
15 up that the 4b SYL was equal to the mean. I didn't have this
16 part, and so 4b in Puerto Rico would be different now.
17
18 **BILL ARNOLD:** For 4b in Puerto Rico, you're right. The 4b in
19 Puerto Rico need to be done, but they don't need to be debated
20 by the SSC. They just need to be calculated using these
21 numbers, right?
22
23 **ADYAN RIOS:** Correct.
24
25 **JOCELYN D'AMBROSIO:** The other thing I would note is we were
26 talking, and I don't know if we're going to do this today, but,
27 for Tier 4b species, the Grouper Unit 4 in Puerto Rico, that's a
28 non-zero ABC, and so, when we were discussing the buffer, we
29 said look at the default buffer and then it might be reduced
30 based on some of the scientific uncertainty factors, and so we
31 would need to discuss whether any of those apply and whether you
32 want any reductions for that Grouper Unit 4 in Puerto Rico.
33
34 **RICHARD APPELDOORN:** The same thing applies -- It's the same --
35
36 **JOCELYN D'AMBROSIO:** It's the same issue for Grouper Unit 4 in
37 St. Thomas/St. John and Grouper Unit 5 in St. Croix, but with
38 respect to the question about what needs to be done for Puerto
39 Rico, that's one that came to mind. Then we would also want to
40 know -- One of the questions in this briefing document is what
41 the buffer is and how we get to an ABC of zero for some species
42 in 4b. That could be setting the buffer at zero.
43
44 **SARAH STEPHENSON:** Adyan, what you just added in blue, I don't
45 think you need that, because you have to apply the buffer
46 reductions when allocating/partitioning landings for 4a and 4b,
47 and so I think that covers what you just added in blue.
48

1 **RICHARD APPELDOORN:** I don't know if this is a correction you
2 need to make or you're just talking about part of the process,
3 but, for our purposes here, your Step 3 is running the SYL/ABC
4 code. The ACL is something the council does later, but this is
5 the same program that you're going to use. Once you have how
6 the council is going to implement their buffers, then your Step
7 3 would be aptly named. That's up to you as to how you're
8 viewing it.
9

10 **ADYAN RIOS:** Got it. The idea is to run through, most
11 importantly, the SYL.
12

13 **RICHARD APPELDOORN:** No, it should be SYL/ABC code.
14

15 **ADYAN RIOS:** Thank you. The only difference that I was thinking
16 of and why I had a second buffer line is because this one is
17 like a methodological buffer reduction. It's a if this, then do
18 that. The other one seems like a hard-coded buffer reduction,
19 like due to other uncertainties, and so I guess --
20

21 **RICHARD APPELDOORN:** Currently, we don't have any of those.
22

23 **ADYAN RIOS:** Okay, perfect, or due to like the ecological status
24 or there is a buffer reduction, and we've got our base buffer
25 and the buffer reduction due to allocating and partitioning.
26

27 **RICHARD APPELDOORN:** We are probably going to get rid of the
28 ecological ones, but that's a topic coming up.
29

30 **ADYAN RIOS:** Okay, and so, up here, I'm going to delete this for
31 now, because that is auxiliary, and you said this was okay.
32

33 **RICHARD APPELDOORN:** Yes.
34

35 **ADYAN RIOS:** We said this was okay, and we said this was okay.
36 Thanks. I will send this to Graciela. Is that okay?
37

38 **RICHARD APPELDOORN:** Yes.
39

40 **ADYAN RIOS:** Okay. Then I will continue to tweak, as I'm able
41 to, and get this hopefully to you soon.
42

43 **RICHARD APPELDOORN:** Thank you, Adyan.
44

45 **ADYAN RIOS:** No problem. Take care.
46

47 **RICHARD APPELDOORN:** Okay, everybody. If you're still with us,
48 we're at Topic 8, which is on page 37.

1
2 **JOCELYN D'AMBROSIO:** Richard, the question that I asked when
3 Adyan was on the line was are we going to apply sort of the
4 rules that we set up in Topic 7, or whichever topic it was, just
5 when we set up the rules for the buffer for 4b, and are we going
6 to apply that and come up with the buffers for 4b species?
7
8 **RICHARD APPELDOORN:** Yes, and did we not cover that?
9
10 **JOCELYN D'AMBROSIO:** You set it at 0.5, and then it says reduced
11 by sources of uncertainty, and so there's a question as to
12 whether there needs to be any reduction.
13
14 **RICHARD APPELDOORN:** That would depend on the unspecified
15 landings situation.
16
17 **JOCELYN D'AMBROSIO:** Some of the other sources were like
18 reporting and expansion factors.
19
20 **RICHARD APPELDOORN:** We did not identify anything for those
21 groups that would warrant that, at least at this time.
22
23 **JOCELYN D'AMBROSIO:** So it's 0.5 then?
24
25 **RICHARD APPELDOORN:** Correct. Then back to the issue of
26 unspecified landings.
27
28 **JOCELYN D'AMBROSIO:** Okay, and what about the ABCs that are
29 zero? Is that applying a buffer of zero then, sort of outside
30 the default, or is it an ad hoc ABC of zero?
31
32 **RICHARD APPELDOORN:** I would rather put it this way. If that's
33 a question that can be deferred to July, because the ABC is set
34 at zero, and so you know what it is, then we might be able to
35 finish what's on this agenda. If you want to have a discussion
36 about how we're formally getting to that zero, that's going to
37 take some time.
38
39 **KEVIN MCCARTHY:** Well, aren't all of these prohibited in federal
40 waters? I mean, isn't that the answer?
41
42 **GRACIELA GARCIA-MOLINER:** Not the manta ray, spotted eagle ray,
43 and southern stingray are not.
44
45 **RICHARD APPELDOORN:** They're all new.
46
47 **GRACIELA GARCIA-MOLINER:** They are all new. These are new.
48

1 **RICHARD APPELDOORN:** We can justify why it is, but she's asking
2 for a --
3
4 **JOCELYN D'AMBROSIO:** The idea is that the control rule says that
5 the ABC is the buffer from the SYL, and so it's a question of
6 did we go outside of that to set the ABC or did we have a buffer
7 that's different, and so, if you apply the default rules of 0.5
8 times the SYL, you know that would be zero, and so I'm just
9 trying to understand the rationale for the decision.
10
11 It could be as simple as it's ad hoc one, and what I'm asking
12 here is are we thinking of it as a buffer question, as sort of
13 an uncertainty question, and I don't know if it's appropriate to
14 think of it as an uncertainty question, and so it's just a
15 question of what's the rationale behind this decision.
16
17 **BILL ARNOLD:** It might help, Richard, to keep in mind that when
18 you set a zero for midnight, rainbow, and blue in the 2010 that
19 it was ad hoc. It was just we're setting it at zero.
20
21 **RICHARD APPELDOORN:** Okay, and it's the same thing here, for the
22 same reasons. We think that these things -- The life histories
23 of these things are such that they are really not -- They can't
24 really withstand fishing, period.
25
26 **BILL ARNOLD:** I agree with you, for the reason that Jocelyn
27 said. We're not reducing to zero due to uncertainty. You're
28 setting it at zero because they are not suitable for harvest.
29
30 **RICHARD APPELDOORN:** In that sense, it's outside of the control
31 rule. Does that answer the question?
32
33 **BILL ARNOLD:** Yes, sir, it does. Thank you very much.
34
35 **RICHARD APPELDOORN:** That was much quicker than I thought.
36
37 **GRACIELA GARCIA-MOLINER:** But is everyone in agreement?
38
39 **RICHARD APPELDOORN:** The discussion on those would clearly
40 reflect that.
41
42 **GRACIELA GARCIA-MOLINER:** So where are we going?
43
44 **RECONSIDER AD HOC ABC FOR ST. CROIX (STX) QUEEN CONCH**
45
46 **RICHARD APPELDOORN:** To conch, Number 8. So it's a
47 reconsideration of the ad hoc ABC for queen conch. So a
48 reconsideration of the ad hoc ABC for queen conch and use the --

1 This would be to, rather than use the Tier 4b approach, use a
2 longer time series.

3
4 Here are my comments on that. The year sequence discussion is
5 given on pages 20 and 21, and that's why we had agreed to go
6 with the most recent data initially, because of issues with the
7 past data, and now we're opening up that decision in light of
8 alternate year sequences for these other species, and this could
9 apply to conch as well, and that record goes further back.

10
11 The transcripts that were provided in relation to this topic
12 really relate to whether conch are overfished or not, and that
13 was not a criteria that was used for the 4a or 4b assignment.
14 The SSC went outside the control rule for St. Croix because of
15 data issues and not because of the status of the conch. What
16 information we have, which is at this point seven to eight years
17 old, indicates that the stock is quite healthy, or at least it
18 appears to indicate that the stock is quite healthy, but we do
19 not know what catch levels relate to that, due to the data
20 issues.

21
22 If we're taking St. Croix conch out of the control rule, I guess
23 we can do whatever we can scientifically justify. In looking at
24 this, I would like to make two other points. I don't know if
25 they exactly have relevance, but a lot of people have been going
26 on and saying that the 50,000-pound limit for St. Croix was
27 determined by Olsen when he was director and that no one knows
28 where that came from and it had no scientific basis.

29
30
31 It may have come from Wood and Olsen 1983, where they calculated
32 an MSY for St. Croix at 60,000 pounds. I reanalyzed their data
33 in a 1992 publication, and I came out with something
34 substantially lower, and I also played around with an area-based
35 estimate that would have come at about 42,000 pounds, and so I
36 don't know where Olsen got his information either, but there are
37 those studies that were in that ballpark, be that as it may.

38
39 I have been trying to look at the conch data for St. Croix. The
40 most recent, recent data is the Doerr/Hill publication that only
41 covered the area around Buck Island, and their density for
42 adults was sixty-eight per hectare, which is reasonably high,
43 and there seems to be a lot of confusion in the SEAMAP data
44 about what years were done, because it looks like there was a
45 study done in 2009 and a study done across 2008 to 2010 that
46 give different values. One is by Gordon, and the other is by
47 Jonathan Brown, and I forget who the other author is.

48

1 **GRACIELA GARCIA-MOLINER:** Stephen Hale.
2
3 **RICHARD APPELDOORN:** Stephen Hale. Right. But what these are
4 saying is that, even back then, the population seemed to be
5 reasonably healthy, although it was dominated a lot by
6 juveniles, which I guess is good, in the sense that it means
7 lots of recruitment, but my point is, even though we could say
8 that, because of our data issues, we have really no good idea of
9 saying what landings value goes with that.
10
11 We could say, okay, let's go back to what the level was before,
12 50,000 pounds, and we really have no idea of how that's relating
13 to either an MSY or what current landings are. The rationale
14 for going with the 37,000 was, well, that's higher than their
15 reporting system now, however the operating reporting system is
16 operating.
17
18 If they are in fact underreporting say by a factor of two, then
19 37,000 pounds allows them to catch substantially more than
20 50,000. The point is we really don't have any idea what's going
21 on. That's why we took it out of the control rule in the first
22 place.
23
24 **BILL ARNOLD:** Richard, I have already lost this argument, but
25 it's going to be very difficult to manage queen conch to 37,000
26 pounds in federal waters when it's 50,000 in state waters. It
27 will be pretty much meaningless.
28
29 **RICHARD APPELDOORN:** Well, it wouldn't be meaningless unless
30 people were fishing out at Lang Bank and there was an
31 enforcement vessel out there that could say these are not from
32 coastal waters.
33
34 **BILL ARNOLD:** You would have to put an enforcement officer in
35 Tom Daley's boat.
36
37 **RICHARD APPELDOORN:** Which I don't want to do.
38
39 **BILL ARNOLD:** You don't have one.
40
41 **RICHARD APPELDOORN:** I mean, we could just say 50,000, to be
42 consistent with -- What's the term? Compatible with current
43 USVI regulations.
44
45 **BILL ARNOLD:** I know somebody who would be really happy.
46
47 **RICHARD APPELDOORN:** Yes, I know a lot of people would be really
48 happy, but they could be harvesting more than 50,000 now. That

1 was the rationale for coming in --
2
3 **BILL ARNOLD:** That's an argument for everything going on down
4 there on every island.
5
6 **WALTER KEITHLY:** May I ask a question?
7
8 **RICHARD APPELDOORN:** Please.
9
10 **WALTER KEITHLY:** I may be confused, but, Bill, you said there is
11 a 50,000-pound quota in state waters, correct?
12
13 **BILL ARNOLD:** No, there's basically a 50,000-pound total quota.
14
15 **WALTER KEITHLY:** A total quota. Okay.
16
17 **BILL ARNOLD:** When that is reached, state and federal waters are
18 both closed to fishing. If you set it at 37,000 for federal and
19 50,000 for state, then, theoretically, the federal would close
20 and the state would stay open, but there is just no level of
21 enforcement that's going to make that happen.
22
23 **WALTER KEITHLY:** Yes, and we don't have timely landings. If we
24 had timely data, you could close the federal waters at 37,000
25 still, but you're saying --
26
27 **BILL ARNOLD:** If we knew where the conch were coming from, but
28 we really don't.
29
30 **WALTER KEITHLY:** No, if we had real-time data, once landings --
31 If we had real-time data, once the 37,000 pounds were landed,
32 then you would have no fishing allowed for conch in federal
33 waters. Okay, and so I see the issue. I think the issue comes
34 more down to that we don't have real-time data on landings, in
35 which case I do --
36
37 **BILL ARNOLD:** It's more a matter of practicality. I am not
38 opposed to you guys setting it at 37,000 pounds, but it's just
39 not going to be very effective, that's all.
40
41 **WALTER KEITHLY:** No, I understand, and, for that reason, I think
42 I would agree to maybe just set the federal quota or limit at
43 50,000 pounds, too.
44
45 **JOCELYN D'AMBROSIO:** My understanding is that they do have real-
46 time data for conch. I just want to make sure that the reasons
47 going into this decision are clear.
48

1 **WALTER KEITHLY:** They do? Okay.
2
3 **BILL ARNOLD:** That's what they told me, is that when the
4 landings sheets come in that they take the queen conch numbers
5 off of them, because they are monitoring queen conch in-season
6 because they've got a closure date coming up. It's not like any
7 other fishery down there. It's got a short season, and it's got
8 a quota. Based upon their calculations, they close the fishery
9 everywhere, and that can be enforced, or kind of enforced.
10
11 **RICHARD APPELDOORN:** Okay. They also have a grid system where
12 they are supposed to indicate where those conch came from.
13
14 **BILL ARNOLD:** Yes, and they're supposed to do a lot of things.
15
16 **RICHARD APPELDOORN:** So there technically would be a way to
17 monitor federal waters versus -- There is a lot of loopholes in
18 that, because the grids span the boundary.
19
20 **BILL ARNOLD:** If the federal waters are closed and the state
21 waters are open, then only a fool is going to put down a grid
22 number in federal waters. They would just put down a number in
23 state waters and continue to harvest, and there is nobody out
24 there to enforce it.
25
26 **WALTER KEITHLY:** Bill, answer this question. Would possession
27 of conch in federal waters be a violation if we put a 37,000-
28 pound limit? I understand there has to be some enforcement out
29 there. I understand that.
30
31 **BILL ARNOLD:** Yes, if there was enforcement out there and state
32 and federal waters were closed, obviously anybody in possession
33 of queen conch would be in violation.
34
35 **WALTER KEITHLY:** Well, I wouldn't say obviously, because they
36 could say it came from state waters and they then went out to
37 federal afterwards, but possession in federal waters would be a
38 violation. Okay.
39
40 **BILL ARNOLD:** Yes, you can't possess, or at least that's the way
41 it's written now. I can't imagine we would change it. If not -
42 - Of course, it doesn't say federal waters, and we could change
43 it. It just says when that season closes that possession is
44 illegal, because everywhere is closed.
45
46 **KEVIN MCCARTHY:** Well, you have the same problem in Puerto Rico.
47 The conch that was harvested from federal waters in Puerto Rico
48 may be a tiny, tiny amount relative to what was harvested in

1 Puerto Rico waters, but the other issue that I have is sort of
2 looking down the line.

3
4 Let's say we tie this to match of 50,000 pounds of the Virgin
5 Islands, and we have just abdicated our responsibility to manage
6 that fishery in federal waters to what happens next year or two
7 years or five years, when the Virgin Islands ups the limit. Do
8 we just go with it? I see a problem with that, if we tie in
9 that 50,000 for convenience.

10
11 **BILL ARNOLD:** That's not how this is being considered or
12 written, Kevin, and, like I said, it's totally up to you guys.
13 I am just telling you what the complexity of it is going to be,
14 but, if the USVI decided that they wanted to up their quota to
15 70,000, that creates no obligation on our part to follow. It
16 creates the enforcement problem, but it doesn't create an
17 obligation.

18
19 **KEVIN MCCARTHY:** Right, which is right where we're at today.

20
21 **BILL ARNOLD:** Sure, except we're creating the problem and not
22 them.

23
24 **KEVIN MCCARTHY:** Well, what's the difference? If we don't match
25 their 50,000, you are perceiving a problem. If they go up to
26 70,000 and we don't match it, there is going to be the same
27 problem.

28
29 **BILL ARNOLD:** Okay. Like I said, it's up to you guys. I am
30 just letting you know what the problem with this is going to be,
31 and I think it's important that you appreciate that. You need
32 to appreciate the management implications of your scientific
33 decisions.

34
35 **RICHARD APPELDOORN:** Does anybody want to make a recommendation?

36
37 **GRACIELA GARCIA-MOLINER:** (The comment is not audible on the
38 recording.)

39
40 **RICHARD APPELDOORN:** When did that go into effect?

41
42 **GRACIELA GARCIA-MOLINER:** The 2008 regulations in the Virgin
43 Islands changed to include a larger closed season, and that
44 would be -- They had some tweaking to do, because they wanted it
45 open for December, for the holidays, but then it would be June
46 through November, and so, basically, your landings information
47 is based on anywhere between four and six months out of every
48 year since then. One thing that we might want to look at

1 quickly, if Kevin has the information, is do you have it by
2 month, Kevin, from 2008 to present?

3

4 **KEVIN MCCARTHY:** Let me take a look.

5

6 **GRACIELA GARCIA-MOLINER:** Because definitely the regulations
7 have changed, and they do that that closure, and it's a minimal
8 part of the conch harvest that probably comes from Lang Bank,
9 which is the only real EEZ area not too deep where you can
10 harvest conch, and not only have they had that regulation in
11 place since then, but they have also had the East End Marine
12 Park come into being right around that time also, and so
13 additional area closures have taken place in St. Croix.

14

15 **KEVIN MCCARTHY:** Which months are --

16

17 **RICHARD APPELDOORN:** June through November are closed.

18

19 **GRACIELA GARCIA-MOLINER:** So it's definitely beginning in June,
20 and then one year is going all the way through December. Then,
21 in 2008, it switched from June to October 31, and it may be
22 including November or not, and then the season closes as early
23 in one year as April, because that's when they reached the
24 50,000-pound limit, and so 2008 would be the -- You should have
25 no landings from June through October.

26

27 **KEVIN MCCARTHY:** Well, there are some, and, in 2008, it looks as
28 though things -- I mean, the landings in June are just as high
29 as the landings in March, and then it drops off to 10 percent of
30 that, and then there are a couple of months without any
31 landings, and October has under a thousand pounds, but November
32 and December both have over 19,000 pounds, and so I don't know
33 what may have been going on in 2008, and there is typically much
34 lower landings in June through November.

35

36 November seems to have consistently higher landings, however,
37 than any of the other months. Some years it's 14,000 pounds and
38 some years it's 3,000 pounds, whereas in January through May,
39 and again in December, there are -- Well, something happened in
40 2009, when there are only 200 pounds in May, but, other than
41 that, it's always in the thousands of pounds, anywhere from
42 about 2,300 pounds to 17,000. Well, one year was 19,000, almost
43 20,000, in December.

44

45 In recent years, 2015, 2014, the high months are 4,600 pounds,
46 as opposed to, in 2010, the high landings were 14,600 pounds,
47 and so they've got down considerably in recent years, for all
48 the reasons that we have discussed, likely, but there is

1 certainly many fewer landings at least June through October. It
2 seems to pick up again in November, but even before that, from
3 1998 to 2007, the landings in -- I don't know what the rules
4 were back in those days, but the landings in July, August, and
5 September were frequently under a thousand pounds, but there
6 were a few times when they were 3,000 pounds, but not many
7 years.

8
9 **GRACIELA GARCIA-MOLINER:** July through September, since 1994,
10 was the seasonal closure for both the state and the EEZ.

11
12 **KEVIN MCCARTHY:** Okay, and so that's what is happening there.
13 What was the different -- They just added a couple of months
14 onto the seasonal closure in 2008?

15
16 **GRACIELA GARCIA-MOLINER:** That's correct.

17
18 **KEVIN MCCARTHY:** Okay. Well, there were certainly years back in
19 the late 1990s -- The data that I happen to be looking at
20 includes 1998, and the landings in 1998, the reported landings
21 in 1998, were 64,000 pounds, whereas, in 2008, it was 124,000
22 pounds. It's been decreasing since then, but the major
23 decrease, I would say, is October, November, and there were,
24 prior to 2008 -- Something happened in 2007, where we seem to be
25 -- There are a lot of blanks, but, prior to 2007, and so from
26 1998 to 2006, October and November were certainly high months
27 for landings, not the highest necessarily, but they were in the
28 ballpark of everything else, whereas, from 2009 forward --
29 Certainly October is no longer --

30
31 There is never a thousand pounds in that month, and November and
32 December seem to be tracking pretty closely, with actually maybe
33 slightly higher landings in November, but, when you look at
34 January through May, the landings in the period of 2009 to 2016
35 are much, much lower than from those same months in 2002 to
36 2006, say, and so it hasn't just been the closure. There have
37 been fewer landings during the open season, and I am just
38 eyeballing a table, but it appears to be that way.

39
40 **GRACIELA GARCIA-MOLINER:** The other issue would be the economic
41 changes in St. Croix, the same as the other islands, but also
42 Hovensa, which made for a very big hole in terms of the buying
43 power.

44
45 **RICHARD APPELDOORN:** Well, if they really harvested -- I mean,
46 we have the problem, early on, of there being this overreporting
47 issue and then, since the time of the ACLs, an underreporting
48 issue. This is why we really can't deal with that data.

1
2 I am not sure that really helped clarify what we need to do, but
3 thank you for that, Kevin, because it did at least give us a
4 little better idea of what the issues are. My feeling is, and
5 it's getting late --

6
7 **GRACIELA GARCIA-MOLINER:** Twenty minutes.

8
9 **RICHARD APPELDOORN:** Yes, and we still have two other items,
10 which we could finish in those twenty minutes, but I would
11 almost like to see something that says 50,000 pounds for ABC.
12 The rationale would be that we are outside of the control rule
13 because of issues with data reliability, and, while the stock
14 may be approaching an MSY density, based on what we've seen in
15 other Caribbean fisheries, we have no way to relate those
16 density levels to a catch level.

17
18 The seasonal closures are also long, and they do have the East
19 End closed area, and so that's in their favor of helping to
20 stabilize the fishery. The point that Bill made, enforcement of
21 measures other than something compatible with the USVI quota
22 would be very difficult to do. Therefore, I think we would just
23 go with compatibility with the USVI quota.

24
25 **JOSEPH KIMMEL:** Rich, one comment. I am looking at the graph
26 that's on the screen right now, queen conch in St. Croix from
27 1998 -- Landings from 1998 to 2017, I guess it is, and I would
28 say 60 to 70 percent of those landings are above 50,000 pounds,
29 and I think that queen conch were closed in the EEZ back in the
30 early 2000s, or maybe even before, and so I'm wondering how come
31 there is --

32
33 **RICHARD APPELDOORN:** The EEZ was never closed in St. Croix.

34
35 **GRACIELA GARCIA-MOLINER:** Well, you had a seasonal closure in
36 place.

37
38 **JOSEPH KIMMEL:** Okay. I think queen conch are extremely
39 vulnerable, and they are a snail. They go real slow, and they
40 aggregate, and they're in their habitat, and so taking them is
41 very easy, and so they're very vulnerable. I don't expect the
42 Virgin Islands guys, especially in St. Croix, to back off of
43 their 50,000 pounds. **They are going to want to keep that
44 forever, and so I think our simplest approach here would be to
45 say with the 50,000 pounds, and I will make that motion to stay
46 with the 50,000 pounds.**

47
48 **RICHARD APPELDOORN:** When you say stay with, that's not the

1 current. Our current is 37,000.
2
3 **JOSEPH KIMMEL:** Our quota is 37,000?
4
5 **RICHARD APPELDOORN:** Our current language says 37,000, which was
6 slightly larger than the maximum catch in the current reference
7 year period.
8
9 **JOSEPH KIMMEL:** Well, if we chose 37,000, Bill has already
10 discussed that problem, and so I would say that we just need to
11 stay with the 50,000 pounds.
12
13 **GRACIELA GARCIA-MOLINER:** How do you want that worded?
14
15 **RICHARD APPELDOORN:** The SSC moves to set the St. Croix conch
16 ABC at 50,000 pounds.
17
18 **JOCELYN D'AMBROSIO:** Your SYL would stay where it is, right?
19
20 **RICHARD APPELDOORN:** Yes. We need a second. I know you're
21 thinking out there. You should not be happy about this, but you
22 should not be happy about any situation that we're going to come
23 up with for this stock, and so unhappiness is not an issue here.
24
25 **JUAN CRUZ-MOTTA:** Rich, I have a question. The 50,000 pounds is
26 based on management issues, right?
27
28 **RICHARD APPELDOORN:** Well, as I pointed out, 50,000 pounds is
29 the quota that was put in place by David Olsen was he was
30 director, and everybody claims that they have no idea where he
31 got this number and he just made it up.
32
33 As I pointed out, there was a study that he did way back in 1983
34 where he came up with an estimate at 60,000 pounds, and I
35 reanalyzed his data, using some auxiliary information that he
36 did not have available at that time, and I came up with
37 something actually much lower than that. However, when I
38 applied an MSY estimate based on just -- An MSY per hectare from
39 calculations that I made in Puerto Rico and elsewhere, I came up
40 with 42,000 pounds, and so between 60,000 and 42,000, and the
41 amount of slop in the data -- You're in the 50,000-pound
42 ballpark.
43
44 Neither one of those estimates -- His was based on a yield per
45 recruit analysis, and I think I did kind of a Schaeffer yield
46 per recruit, and all of those were used doing techniques that
47 were subsequently shown to be biased, and so, if we were to redo
48 those now, we would come up with levels that were lower, and so

1 what do you want me to say?

2
3 There are studies that were in place at the time that his
4 decision was made that would say that that's sort of in the
5 ballpark. Whether they would hold up if we had good data and
6 could reanalyze it, I don't know. We do have an abundance of
7 adult conch, upwards of sixty to almost seventy per hectare,
8 which is getting towards the levels that I would consider to be
9 at an MSY -- Certainly the total levels are well above the 100
10 conch per hectare that I would want to see, but that's a lot of
11 juveniles contributing to that, and so I would discount that, to
12 some degree.

13
14 Nevertheless, this is not a population that is being severely
15 stressed. It may still be overfished, and I would like to get a
16 better handle on things there, but the trend has been upwards,
17 and, since the last survey, the levels of fishing -- The levels
18 of fishing are in fact down, because of the economic situation
19 or they are grossly underestimating what they are harvesting.

20
21 I would argue if the economic levels are down that the
22 population certainly hasn't gotten any worse, and may still have
23 continued to improve, but the last surveys are coming out of
24 2010 or 2011, somewhere in that ballpark, depending on which one
25 you want to look at, and so it really comes down to -- There
26 just really isn't good data to say where you ought to be, and so
27 to say it's based on science -- Well, there is some science
28 there to support it for the time that it was put into place, but
29 I think, if we were to do those again, we would get lower
30 numbers, but it's really that compatibility issue that -- We
31 could put something in lower, but it's not really going to have
32 any effect.

33
34 **JUAN CRUZ-MOTTA:** Okay, and another question. Have you or
35 anybody done an exercise to estimate ABC using the ad hoc
36 approach versus the Tier 4b?

37
38 **RICHARD APPELDOORN:** Well, we threw out 4b because we didn't
39 like the numbers.

40
41 **JUAN CRUZ-MOTTA:** What were those numbers?

42
43 **RICHARD APPELDOORN:** That's where we came up with the 37,000,
44 just to be slightly higher than their highest catch, to allow
45 for the economic issues, in light of underreporting.

46
47 **JUAN CRUZ-MOTTA:** Okay. Thank you, Rich.

48

1 **RICHARD APPELDOORN:** We are down to ten minutes, and we still
2 need a second, just so we can have a vote on this.
3

4 **JORGE GARCIA-SAIS:** Richard, is there going to be any
5 possibilities of doing this scientifically? I mean, are we
6 going to be -- Is there any other way than actually just this
7 approach of the 50,000 pounds without much other David-Olsen-
8 kind of thing or -- What is that we have and what are the
9 benefits? Is it arbitrary shot? I mean --

10

11 **JUAN CRUZ-MOTTA:** Another technical question, Rich. What
12 happens if this motion gets voted against? Would we have to
13 come up with another number?
14

15 **RICHARD APPELDOORN:** Yes, we have to come up with another
16 number, or we could stay with the one we have.
17

18 **WALTER KEITHLY:** For the sake of a vote, I will second the
19 motion.
20

21 **RICHARD APPELDOORN:** Thank you, Walter.
22

23 **JORGE GARCIA-SAIS:** Richard, how close are they getting to the
24 50,000 limit?
25

26 **RICHARD APPELDOORN:** In reality?
27

28 **JORGE GARCIA-SAIS:** In reality.
29

30 **RICHARD APPELDOORN:** We have no idea.
31

32 **BILL ARNOLD:** Before you get too self-righteous, I would point
33 out that in Puerto Rico they are way into six figures with their
34 queen conch harvest, and so try to be a little bit sensitive to
35 other people.
36

37 **RICHARD APPELDOORN:** Puerto Rico is a much bigger island.
38

39 **BILL ARNOLD:** But does it really have more harvestable habitat?
40 The whole north coast is too deep, but that's fine. I am just
41 pointing out that it's not like these guys are standing out
42 there by themselves harvesting these queen conch and nobody else
43 is doing it.
44

45 **JORGE GARCIA-SAIS:** Yes, but my point is that the socioeconomics
46 -- Is the demand there for more than 50,000 pounds, because we
47 are saying, hey, look, we have a socioeconomic problem, and the
48 demand is very low, and so, if that is so, is there -- Is the

1 demand out there for more than 50,000 pounds?
2
3 **RICHARD APPELDOORN:** There were some fishermen who were selling
4 to Puerto Rico.
5
6 **JORGE GARCIA-SAIS:** Okay. Well, that is something else.
7
8 **RICHARD APPELDOORN:** Also, apparently St. Croix people go over
9 to St. Thomas and St. John to fish, occasionally, for conch and
10 then land in St. Croix.
11
12 **JORGE GARCIA-SAIS:** I personally don't know how to vote on this
13 one. This kind of like an act of faith and anything goes.
14
15 **RICHARD APPELDOORN:** Well, it all hangs on compatibility,
16 because, after that, as you said, it's an act of faith.
17
18 **JOSEPH KIMMEL:** Rich, I am going to vote for my motion, even
19 though there is no scientific basis that I can point out.
20
21 **WALTER KEITHLY:** I am going to vote against the motion.
22
23 **DOUGLAS GREGORY:** Yes.
24
25 **JORGE GARCIA-SAIS:** Abstain.
26
27 **TYLER SMITH:** I think I will vote yes.
28
29 **KEVIN MCCARTHY:** Although this 50,000 pounds -- We don't have
30 enough information to say whether that's a good number or not,
31 and I don't like the precedent I think we're setting here. I
32 get the feeling we're going with that number just so we can be
33 in agreement with the Virgin Islands, and I think that abdicates
34 our responsibility, and so I'm going to just abstain.
35
36 **JUAN CRUZ-MOTTA:** No.
37
38 **RICHARD APPELDOORN:** I will vote yes. I'm not happy about it.
39
40 **GRACIELA GARCIA-MOLINER:** So four yes. **The motion carries.**
41
42 **RICHARD APPELDOORN:** What were the no and abstain?
43
44 **GRACIELA GARCIA-MOLINER:** The no was two and two abstain.
45
46 **JOCELYN D'AMBROSIO:** That was Motion Number 12.
47
48 **JUAN CRUZ-MOTTA:** Rich, one question. These motions are

1 recommendations to the council or these are final decisions?

2
3 **RICHARD APPELDOORN:** Well, the SSC has the responsibility of
4 setting ABC.

5
6 **JUAN CRUZ-MOTTA:** Thank you.

7
8 **RICHARD APPELDOORN:** All right. I have a rather extended
9 rationale that I would like to attach to this, most of which I
10 kind of just read, but it would go as follows. Queen conch in
11 St. Croix is taken out of the control rule due to the issues
12 with data reliability. The stock may be approaching MSY density
13 based on other Caribbean fisheries, but this cannot be related
14 to any catch level.

15
16 The seasonal closure is long, and they have the East End closed
17 area. Enforcement of measures other than compatibility with the
18 USVI quota would be difficult. Therefore, the SSC chooses to be
19 compatible with the Virgin Islands quota. However, the SSC
20 stresses the urgent need to conduct a validation study for this
21 fishery.

22
23 If you're all happy with that, we can write that in a little
24 later on, so we can spend the last couple of minutes on those
25 last two things, which I think we can actually do quickly. Are
26 we happy with that? Any dissention? Hearing none, all right.

27
28 **ACKNOWLEDGE THE COUNCIL'S DIRECTIVE TO REMOVE ADDITIONAL**
29 **REDUCTIONS PROPOSED BY THE SSC TO BE APPLIED TO THE SYL FOR**
30 **ECOLOGICALLY-IMPORTANT SPECIES**

31
32 Then Number 9 is acknowledge the council's directive to remove
33 additional reductions proposed by the SSC to be applied to the
34 SYL for ecologically important species. The reason for this is
35 this is considered to be something that's under the purview of
36 the council and not the SSC.

37
38 I have no problem with that, but we just have to acknowledge
39 that that's the way things are, and so I would say that what we
40 want to do is remove those from any SYL or ABC considerations,
41 but make these as a recommendation to the council for their
42 consideration for ACLs.

43
44 **JOSEPH KIMMEL:** Rich, so moved.

45
46 **JOCELYN D'AMBROSIO:** Graciela, I believe that would be a
47 reduction applied to the ABC to get to the ACL.

48

1 **KEVIN MCCARTHY:** Doug, is there anything similar to this in the
2 Gulf? How is it handled? I mean, is this typically a council
3 decision or an SSC decision? What does the Gulf do, or is there
4 nothing compatible?
5

6 **DOUGLAS GREGORY:** Well, we don't really have a compatible just
7 straight ecological reductions. We do have whether or not
8 environmental factors have been considered in the assessment
9 itself, and, if it has not, it has more uncertainty, but it's a
10 minor attribute in the overall picture.
11

12 **KEVIN MCCARTHY:** But who makes that call about the uncertainty?
13 Does the council do that? Does the SSC do that?
14

15 **DOUGLAS GREGORY:** The SSC makes the call about the uncertainty.
16

17 **JOCELYN D'AMBROSIO:** I think, from the council's perspective,
18 the way that it had been described seemed more like it was
19 saying that we want to be protective of these species because of
20 their ecological importance, as opposed to some uncertainty --
21 As Doug was saying, for example, were there environmental
22 considerations that could affect the outcome of the assessment,
23 and I think they were seeing the way this was being phrased as
24 more of a we should protect them and not have as much harvest,
25 which would be a management question, as opposed to do we have
26 uncertainty in the landings because of any environmental issues.
27 That's how they were looking at it, as it's kind of more
28 management uncertainty than scientific uncertainty, which is
29 obviously in the purview of the SSC.
30

31 **KEVIN MCCARTHY:** I suppose one could make an argument the other
32 way, that these are -- Their role in the ecosystem is a
33 scientific question, but -- I am just trying to get some
34 guidance on how -- If there's a similar situation somewhere else
35 and how they've addressed it.
36

37 **JOCELYN D'AMBROSIO:** I think that recommending to the council to
38 reduce the ABC to ACL because of your scientific opinion on
39 their ecological importance, that makes sense. I think, on the
40 question of scientific uncertainty, we were just looking at the
41 guidelines and the factors there and so looking at the
42 uncertainty in the OFL to get to ABC. Here we have an SYL and
43 ABC, and so what is the uncertainty that you have developed for
44 the acceptable biological catch.
45

46 **RICHARD APPELDOORN:** Joe, is this wording for the motion
47 compatible with what you were suggesting?
48

1 **JOSEPH KIMMEL:** Yes.
2
3 **RICHARD APPELDOORN:** We need a second.
4
5 **JORGE GARCIA-SAIS:** Second.
6
7 **TYLER SMITH:** Rich, can you just repeat it real quick, the
8 motion?
9
10 **RICHARD APPELDOORN:** The motion reads that the SSC moves to
11 rescind reductions in SYLs based on ecological importance, but
12 it recommends that the Caribbean Fishery Management Council
13 consider such reductions as follows. Parrotfish in St. Thomas
14 and Puerto Rico have a 15 percent reduction applied to the ABC
15 to get to the ACL. Parrotfish in St. Croix would have a 20
16 percent reduction applied to the ABC to get to the ACL.
17 Angelfish in all three islands would have a 25 percent reduction
18 ABC to get to the ACL. Surgeonfish in all three islands would
19 have a 25 percent reduction in ABC to get to the ACL.
20
21 **TYLER SMITH:** Thank you.
22
23 **RICHARD APPELDOORN:** It was the council who last time put into
24 place the reductions based on ecological importance, based on
25 our recommendations. Let's go to a vote.
26
27 **JOSEPH KIMMEL:** Yes.
28
29 **JORGE GARCIA-SAIS:** Yes.
30
31 **WALTER KEITHLY:** Yes.
32
33 **DOUGLAS GREGORY:** Yes.
34
35 **TYLER SMITH:** Yes.
36
37 **KEVIN MCCARTHY:** Yes.
38
39 **JUAN CRUZ-MOTTA:** Yes.
40
41 **RICHARD APPELDOORN:** Yes. **It's unanimous.**
42
43 **DOUGLAS GREGORY:** I am going to be signing-off now. I'm sorry,
44 but I have to go.
45
46 **RICHARD APPELDOORN:** Okay.
47
48 **WALTER KEITHLY:** I have to go too, but I did want to thank I

1 guess the Regional Office for putting together the briefing
2 book. I found it very useful in our deliberations, and so thank
3 you.

4
5 **ADDRESS THE SUMMARY REPORT FROM THE FEBRUARY/MARCH SSC MEETING**

6
7 **RICHARD APPELDOORN:** If I could have ten seconds of your time,
8 the last item was to address the summary report from the
9 February/March 2018 SSC Meeting. We in fact did not change
10 anything from that report, and so I don't think there's anything
11 to do with Item 10.

12
13 **JOCELYN D'AMBROSIO:** I think folks here were just wondering were
14 we seeing a draft or had it been sent around to the SSC and was
15 it a final report, those sorts of questions. Then, in terms of
16 caveats to be addressed, to the extent that you guys are meeting
17 in July if there were some questions about some of the
18 recommendations coming out of there, to the extent that there
19 was a question of was there additional tasks that the SSC wanted
20 to undertake, so that they could provide the best scientific
21 advice possible.

22
23 **RICHARD APPELDOORN:** But we're not changing the report relative
24 to what we discussed.

25
26 **JOCELYN D'AMBROSIO:** Right. Not relative to what you discussed
27 today, because that would obviously be any report coming out of
28 this webinar.

29
30 **RICHARD APPELDOORN:** Yes. With that, I think we're actually
31 done. Thank you, everybody.

32
33 **JOSEPH KIMMEL:** Rich, before we go, I would like to commend the
34 people who put together the briefing document, and I would
35 support Walter's point there. It was very helpful for me to
36 understand and get through all of this material.

37
38 **RICHARD APPELDOORN:** I would certainly support that. I will
39 note that in the report.

40
41 **TYLER SMITH:** I just want to say thanks to everybody. This will
42 be my last duty on the SSC, and I have really enjoyed my time
43 here. Unfortunately, I have just have too many other
44 commitments at this time to be effective, but carry on, and I
45 would be willing to give advice, and so I would give a motion to
46 adjourn.

47
48 **JOCELYN D'AMBROSIO:** Just before we adjourn, and thank you,

1 Tyler, but someone here raised the question of -- I think Tyler
2 had asked at one point if we could read the motion, and I
3 actually don't recall if we read all of the motions into the
4 record, and I know we were numbering them as we went along, and
5 so just for the written transcript, it might be helpful if we
6 could just quickly read the motions in at the end.

7

8 **RICHARD APPELDOORN:** Are you talking about all of them?

9

10 **JOCELYN D'AMBROSIO:** Yes, and people don't have to hang around
11 for it, but just for the record.

12

13 **GRACIELA GARCIA-MOLINER:** Do you want me to read them?

14

15 **RICHARD APPELDOORN:** Yes, go ahead.

16

17 **GRACIELA GARCIA-MOLINER:** Motion 1 is the SSC moves to establish
18 recreational landings year sequences for Puerto Rico jacks to be
19 2000 to 2016.

20

21 **KEVIN MCCARTHY:** Just say whether or not the motion carried.

22

23 **GRACIELA GARCIA-MOLINER:** That motion carried. Motion 2 is the
24 SSC moves to use the following method to calculate SYL and ABC
25 for complexes with two indicators: (a) sum the annual landings
26 of the indicator species and calculate a single SYL and ABC
27 applicable to the complex. It was yes, four to two.

28

29 Motion 3 is the SSC moves to not have an indicator species for
30 Snapper Unit 3 (lane/gray complex) in St. Croix. The motion
31 carried. Motion 4 is the SSC moves to not select an indicator
32 for Grouper Unit 5 in St. Croix and use the aggregate approach.
33 The motion carried.

34

35 Motion 5 is the SSC moves to not select an indicator for the
36 Grouper Unit 4 in St. Thomas/St. John and use the aggregate
37 approach. The motion carried. Motion 6 is the SSC moves to
38 revisit the year sequence for STT/STJ and STX at the July SSC
39 meeting based on information provided to the SSC at that meeting
40 by the Southeast Fisheries Science Center. The motion carried.

41

42 Motion 7 is the SSC moves to adopt for the Tier 4a species
43 additional reductions to the scientific uncertainty buffer to
44 account for allocation of unspecified landings, applied as
45 follows. If unspecified landings are less than 10 percent of
46 the reference period total, do not adjust the baseline buffer.
47 If unspecified landings are 10 to 35 percent of the reference
48 period total, then reduce the baseline buffer by 0.05. If

1 unspecified landings are more than 35 percent of the reference
2 period total, then reduce the baseline buffer by 0.1. The
3 motion carried.

4

5 Motion 8 is the SSC moves to maintain the Tier 4b assignment for
6 Grouper Unit 4 in Puerto Rico and St. Thomas/St. John and for
7 Grouper Unit 5 in St. Croix. The motion carried.

8

9 Motion 9 is the SSC moves to adopt the same scalar setting
10 process that was used for Tier 4a (susceptibility score times
11 VAF) to determine the SYL for Tier 4b species with a maximum
12 scalar of less than two. The motion carried.

13

14 Motion 10 is the SSC moves to adopt the same buffer setting
15 process that was used for Tier 4a to determine the ABC for Tier
16 4b species. Use a 0.5 buffer to be modified as necessary for
17 species or species groups and islands by the factors discussed
18 under scientific uncertainty. The validity of the multiplier
19 (buffer) declines over time, and the SSC is of the opinion that
20 a two-year period after implementation is the maximum for which
21 the current buffer can be used. Then there is an asterisk. As
22 such, the SSC requests to evaluate or modify the buffer in two
23 years in response to changes in information on the reliability
24 of landings, or lack thereof, and annually after that. The
25 asterisk refers to, as a scientific principle, the older the
26 information used to assess and manage a stock, the more
27 uncertainty there is. The longer the landings are unverified,
28 the greater the possibility of the stock trajectory trending
29 downward. Hence, the SSC believes that an adjustment to the
30 multiplier up or down needs to be considered in two years. The
31 motion carried.

32

33 Motion 11 is the SSC moves to adopt for Tier 4b species
34 additional reductions to the scientific uncertainty buffer to
35 account for allocation of unspecified landings, applied as
36 follows. If the unspecified landings are less than 10 percent
37 of the reference period landings total, then do not adjust the
38 baseline buffer. If the unspecified landings are 10 to 35
39 percent of the reference period total, then reduce the baseline
40 buffer by 0.05. If the unspecified landings are greater than 35
41 percent of the reference period total, then reduce the baseline
42 buffer by 0.1. The motion carried. Motion 12 is the SSC moves
43 to set the ABC for St. Croix queen conch at 50,000 pounds. The
44 motion carried.

45

46 Motion 13 is the SSC moves to rescind reductions in SYLs based
47 on ecological importance, but it recommends that the CFMC
48 consider such reductions as follows. Parrotfish in St. Thomas

1 and Puerto Rico would have a 15 percent reduction applied to the
2 ABC to get to the ACL. Parrotfish in St. Croix would have a 20
3 percent reduction applied to the ABC to get to the ACL.
4 Angelfish in all three islands would have a 25 percent reduction
5 applied to the ABC to get to the ACL. Surgeonfish in all three
6 islands would have a 25 percent reduction applied to the ABC to
7 get to the ACL. The motion carried. That's it.

8

9 **JOCELYN D'AMBROSIO:** Thank you very much.

10

11 **GRACIELA GARCIA-MOLINER:** Okay. Is there anything else? We
12 will be filling in the rationale that Richard had read out loud
13 in the document to be distributed to everyone.

14

15 **JOCELYN D'AMBROSIO:** Thank you.

16

17 **GRACIELA GARCIA-MOLINER:** Are we officially adjourned?

18

19 **RICHARD APPELDOORN:** We are officially adjourned. Hearing no
20 opposition, we are adjourned.

21

22 (Whereupon, the meeting adjourned on May 29, 2018.)

23

24

- - -

25