1 2 3	JOINT MEETING OF THE GMFMC SPINY LOBSTER ADVISORY PANEL AND SAFMC SPINY LOBSTER ADVISORY PANEL	THE
3 4 5	Gulf Council Office Tampa, Flor	ida
6	APRIL 25, 2016	
7		
8	GMFMC AP MEMBERS	
9	Robert Gaitanis	
10	Joshua Nicklaus	
11	George Niles	
12	Daniel Padron	
13 14	Simon Stafford	••••
14 15	SAFMC AP MEMBERS	
16	Robert Burton	
17	Richard Diaz	
18	Anthony Iarocci	
19	Bruce Irwin	
20	Bill Mansfield	
21	Gary Nichols, II	
22	Peter O'Bryan	
23	Mimi Stafford	
24	Mickey Whittington	
25		
26	STAFF	
27	Karen Hoak Administrative and Financial Assis	
28	Morgan KilgourFishery Biolo	-
29	Kari MacLauchlin Scient Social Scient	
30 31	Douglas GregoryExecutive Dire	ctor
32	OTHER PARTICIPANTS	
33	Martha BademanG	MFMC
34	Chester BrewerS	
35	Ben HartigS	
36	Tom Hiu	
37	Shelly KruegerFL Sea G	
38	Tom Matthews	
39	Jessica McCawleyS	
40	Gabrielle Renchen	
41	Walter Rentz	
42	Yuying Zhang Univer	
43	·	-
44		
45		

1 2	TABLE OF CONTENTS
3	Table of Contents
4 5	Table of Motions3
6 7	Election of Chair and Vice Chair for the GMFMC AP
8 9	Election of Chair and Vice Chair for the SAFMC AP6
10 11	Adoption of Agenda6
12 13	Approval of Minutes7
14 15	Plan of Work
16 17	Review of Spiny Lobster Landings8
18 19	2015 and 2016 Spiny Lobster Review Panel Report
20 21	Lobster Fishery Issues
22 23	Review and Discussion of Spiny Lobster Closed Areas
24 25	Summary of Amendment 11108
26 27	Review of Gulf Coral Habitat Areas of Particular Concern110
28 29	Other Business
30 31	Adjournment
32 33	

1 TABLE OF MOTIONS 2 3 PAGE 69: Motion to recommend that the council accept the 4 recommendation of the review panel to calculate the ACL based on 5 landings from 1991 through the most recent landings. The motion carried by the South Atlantic Council on page 76. 6 The motion 7 carried by the Gulf Council on page 76. 8 9 PAGE 83: Motion that in federal and state trip intercept programs that lobster be made a priority species for size 10 monitoring. The motion carried by the South Atlantic Council on 11 page 84. The motion carried by the Gulf Council on page 85. 12 13 14 Motion to recommend that there be a lower landing PAGE 92: 15 trigger based on the average of the three low landing years (2001/2002, 2002/2003, 2003/2004) that would initiate a review 16 17 panel if below this average for two consecutive years (5.3 million pounds total catch). The motion carried by the South 18 Atlantic council on page 96. The motion carried by the Gulf 19 20 Council on page 96. 21 22 23

1 The Spiny Lobster Advisory Panels of the Gulf of Mexico Fishery 2 Management Council and the South Atlantic Fishery Management 3 Council convened at the Gulf Council Office, Tampa, Florida, 4 Monday morning, April 25, 2016, and was called to order at 9:00 5 a.m. by Chairman Anthony Iarocci. 6

7 CHAIRMAN ANTHONY IAROCCI: Good morning. I guess I am Acting Chair at this meeting, and so I will try to be an adult and be 8 9 mature through most of my leadership here. Good morning. My name is Anthony Iarocci, and I welcome all of you to the joint 10 meeting of the Gulf of Mexico and South Atlantic Fishery 11 12 Management Councils Spiny Lobster Advisory Panels. We 13 appreciate your participation in this meeting. 14

15 Representing the Gulf Council are Martha Bademan, with staff 16 members Morgan Kilgour and Doug Gregory. Representing the South 17 Atlantic Council is Jessica McCawley, Chester Brewer, and Ben 18 Hartig, with staff member Kari MacLauchlin. Karen Hoak will be 19 compiling the official record of the meeting, which is captured 20 by a digital recording system. Every attempt will also be made 21 to stream this meeting live.

Notice of this meeting was provided to coastal newspaper throughout the area, marine extension and NMFS port agents, and published in the Federal Register. Notice was also sent via email to subscribers of the councils' press release email lists and was posted on the councils' websites.

28

44

46

22

29 Copies of our agenda may be found on the handouts table. If you 30 have not already done so, please register in the sign-in book on 31 the table also. This meeting is open to the public. Members of 32 the public are welcome to speak at times that will allow the 33 orderly conduct of business. Please advise me or the council 34 staff if you wish to address the committee. A summary of the 35 meeting will be produced and presented at the June South 36 Atlantic Fishery Management Council meeting in Cocoa Beach, 37 Florida and the Gulf Council meeting in Clearwater, Florida. 38

39 Records will also be made available to the public, along with 40 the digital recordings, by request. Interested parties may 41 contact the council office if they want copies of either. For 42 the purpose of voice identification, I will now ask each member 43 to please identify him or herself, starting on my left.

45 MS. MIMI STAFFORD: Mimi Stafford, South Atlantic Council.

47 MR. ROBERT GAITANIS: Robert Gaitanis, with the Gulf Council. 48

MR. SIMON STAFFORD: Simon Stafford, Gulf Council AP. MR. GARY NICHOLS: Gary Nichols, South Atlantic Council AP. MR. JOSHUA NICKLAUS: Josh Nicklaus, Gulf Council. MR. DANIEL PADRON: Daniel Padron, Gulf Council. MR. GEORGE NILES: George Niles, Gulf Council. MR. BRUCE IRWIN: Bruce Irwin, South Atlantic. MR. MICKEY WHITTINGTON: Mickey Whittington, South Atlantic. MR. DOUGLAS GREGORY: Doug Gregory, Gulf Council staff. MR. WILLIAM MANSFIELD: Bill Mansfield, South Atlantic AP. MR. PETER O'BRYAN: Peter O'Bryan, South Atlantic AP. MR. ROBERT BURTON: Robert Burton, South Atlantic AP. MR. TOM MATTHEWS: Tom Matthews, Florida Fish and Wildlife. DR. MORGAN KILGOUR: Morgan Kilgour, Gulf Council staff. MS. MARTHA BADEMAN: Martha Bademan, Gulf Council and FWC staff. DR. KARI MACLAUCHLIN: Kari MacLauchlin, South Atlantic Council staff. MS. JESSICA MCCAWLEY: Jessica McCawley, South Atlantic Council and FWC staff. CHAIRMAN IAROCCI: Thank you. The next item on the agenda is the Election of Chair and Vice Chair for the Gulf of Mexico. Ι think, Doug, if we can change this to do the election of both Chairs, the Gulf and the South Atlantic, and get it over with at the beginning of the meeting, if that's okay. At this time, I would like to take any calls for election of the Chair and Vice Chair on the Gulf Council. Simon. ELECTION OF CHAIR AND VICE CHAIR FOR THE GMFMC AP MR. STAFFORD: I would like to nominate Bill Kelly for the Chair of the Gulf Council AP. He's not here, but I am sure he would take it.

1 CHAIRMAN IAROCCI: Doug, to that point, if Bill is not here, can 2 he still be elected? I forget the protocol to that. 3 MR. GREGORY: I don't know either, but if we also have a Vice 4 5 Chair, the Vice Chair can run the meeting. 6 7 CHAIRMAN IAROCCI: Any other nominations for Chairman or Vice 8 Chair? George Niles. 9 10 MR. NILES: I would like to nominate Daniel Padron for Vice 11 Chair. 12 13 CHAIRMAN IAROCCI: Any seconds? 14 15 **AP MEMBER:** I will second that. 16 17 CHAIRMAN IAROCCI: All in favor. I think that's unanimous then. 18 Congratulations, Daniel. You're the man. Back to Bill Kelly. 19 Everybody is set with that? Everybody is in agreement? Okay. 20 Everybody is voting, and that's done then. Bill Kelly is Chair 21 and, Daniel Padron, you are Vice Chair. The next item would be 22 the election of Chairman for the South Atlantic and Vice Chair. 23 Gary. 24 25 ELECTION OF CHAIR AND VICE CHAIR FOR THE SAFMC AP 26 27 MR. NICHOLS: I quess I'm going to nominate Bruce for Chair. 28 29 CHAIRMAN IAROCCI: Bruce Irwin. 30 31 MR. NICHOLS: Yes, and he's done it before. 32 33 CHAIRMAN IAROCCI: Any other nominations? All in favor, raise 34 your hand, please. It's unanimous. Okay. Vice Chair. 35 36 MR. BURTON: I would like to nominate, as Vice Chair, Bill 37 Mansfield. 38 CHAIRMAN IAROCCI: Excellent choice. Excellent choice. All in 39 All right, Bill. Good deal. Good deal. 40 favor. I've worked 41 with Bill for a long time on a lot of issues, and he's very 42 capable of the job. Thank you very much. 43 44 ADOPTION OF AGENDA 45 Adoption of the Agenda, has everybody looked at this? We have 46 47 already changed, before I even looked at it, we've already 48 changed the election of the Chair and Vice Chair for the South

1 Atlantic, but are there any changes or modifications that 2 anybody wants to make to this? 3 DR. MACLAUCHLIN: We sent you all the minutes from the last two 4 5 meetings, which were four or five years ago, and you just need to, for the South Atlantic, just ask if there are any changes or 6 approve those, and then your Chair will sign the certification. 7 8 9 CHAIRMAN IAROCCI: Daniel, if we could, why don't you come cochair this with me and we can both work on this and get you 10 11 moved along in the right direction. Is that okay, Doug? 12 13 MR. GREGORY: Yes. 14 15 CHAIRMAN IAROCCI: While he's making the move, why don't we go 16 into the next thing, Plan of Work, and that's done by staff. 17 First, we need to approve the minutes for the South Atlantic. 18 19 APPROVAL OF MINUTES 20 21 I would like to go ahead and make a motion that we AP MEMBER: 22 add the minutes of the 2011 South Atlantic meeting to the agenda 23 and then adopt the agenda as amended. 24 25 CHAIRMAN IAROCCI: Is there a second? All right. So moved. 26 Nobody is opposed, right? 27 28 MR. GREGORY: The Gulf side should adopt the minutes as well, 29 the 2010 joint AP meeting, because that was the last AP meeting 30 we had. 31 32 CHAIRMAN IAROCCI: Gulf Council AP? Anybody want to approve the 33 minutes? 34 35 AP MEMBER: I will approve the minutes. 36 37 CHAIRMAN IAROCCI: It's seconded by George. No dissention and everything is -- All right. Done. Thank you. Now the Plan of 38 39 Work. Staff, please. 40 41 PLAN OF WORK 42 43 DR. KILGOUR: Today's plan of work is a little different than 44 normal. We have four agenda items that are all kind of intertwined, 5, 6, and 7, where we're going to go over the spiny 45 lobster landings, the review panel reports, and then Tom 46 47 Matthews is going to give a presentation on the lobster fishery 48 issues with some updated landings information.

1 2 It's up to the panels if they would like to make motions at each agenda item or if they want to wait until the end of the FWC 3 presentation to 4 start making motions with all of the 5 information, but that's just the plan of work. If there are any questions on the plan of work, just feel free, but I will just 6 7 make sure that everything is addressed at each agenda item, if 8 that's okay with the panels. 9 10 CHAIRMAN IAROCCI: Any questions or comments? Simon. 11 12 If we leave all the recommendations to the end, MR. STAFFORD: 13 we can still ask questions during the whole thing, right? 14 15 DR. KILGOUR: Absolutely. You can make recommendations at any 16 I am just letting everybody know that they're all kind of time. 17 intertwined, and so if you wanted to wait, because I think Tom has some updated landings information for the 2014/2015 or is it 18 19 2015/2016 season that might bring some more information that you 20 would want for your recommendations. 21 22 MR. STAFFORD: That's fine with me. 23 24 CHAIRMAN IAROCCI: Any other comments? Then let's move along 25 then to Review of Spiny Lobster Landings. 26 27 REVIEW OF SPINY LOBSTER LANDINGS 28 29 DR. KILGOUR: Just a little bit about why we're here. The ACT, ACL, and OFL were all set using the means plus or minus the 30 31 standard deviations, and, as of now, they were set at pretty 32 much the lowest ten years of landings that were observed in the 33 past twenty-five years. 34 35 The accountability measure for this fishery is that if the ACT 36 is exceeded, a review panel will meet. If the ACL is exceeded 37 twice in a four-year period, then the whole system of measures 38 will need to be reevaluated. To date, the ACT has been exceeded 39 the past three years, including the 2015/2016 season. 40 41 MR. MATTHEWS: Maybe. 42 43 DR. KILGOUR: Maybe, and the ACL has been exceeded. It was 44 exceeded in the 2013/2014 fishing season, and so these are -- If we go to the next slide, the bottom line is the ACT, the middle 45 purple line is the ACL, and the top red line is the OFL. You 46 47 can see that in 2013/2014, the OFL was exceeded, but, last year,

48 just the ACT was exceeded.

2 The light-blue line is the total landings, the middle dark-blue line is the commercial landings, and the bottom line is the 3 4 recreational landings, and so that's why we're here. It looks 5 like, in the past three years at least, the ACT has been exceeded every year, and that's including the 6 2015/2016 7 projections. Is that fair to say, Tom? 8 9 MR. MATTHEWS: Yes. 10 11 DR. KILGOUR: He will have updated landings for that. Are there any questions about the landings? Okay. 12 13 14 CHAIRMAN IAROCCI: Any questions or comments or anything on 15 that? All right. We will move on. 2015 and 2016 Spiny Lobster 16 Review Panel Report, done by staff. 17 18 2015 AND 2016 SPINY LOBSTER REVIEW PANEL REPORT 19 20 DR. KILGOUR: As I mentioned, the ACT was exceeded in 2013/2014 21 and 2014/2015, and so a review panel met. In 2015, the review 22 panel went -- It was a one-day meeting. They went over lots of 23 different issues affecting the spiny lobster fishery, including 24 the virus and some genetic information, but, overall, the panel 25 decided that -- It made three overall recommendations, that a 26 new stock assessment wasn't necessary, that the OFL be redefined 27 as the maximum fishing mortality threshold, and that the ACL is 28 the wrong methodology to manage this fishery, because it doesn't 29 seem to be working. In response to that, the council has asked 30 that we send a letter to NMFS requesting that spiny lobster be 31 exempt from an ACL requirement, and that was denied. 32 33 In 2016, the review panel met via webinar and made a series of motions, and so if we go to the review panel summary, I will 34 35 just walk you through the motions. They were looking at the 36 updated landings information, and the motions were to 37 recalculate the ACL based on the landings from 1999 through 2015/2016, and so the entire series of landings information, to 38 39 examine setting the annual catch limit based on a rolling 40 average, and to examine setting the ACL trigger based on 41 landings and the landings-to-effort index, which is something 42 that Tom had suggested, so that it's not just based on a static 43 number, but it's based on an index. Are there any questions about either one of these summaries? 44 45 The review panel, I should have mentioned, was made up of 46 members of the AP, members of the SSC, Gulf Council staff, South 47 Atlantic Council staff, and the FWC. Okay. 48 That was quick.

1

1 Let's go on to the next agenda item, if that's all right with 2 you. 3 4 (At this point in the meeting, Daniel Padron took over as 5 Chairman.) 6 7 Sure. Any questions about that? Then moving CHAIRMAN PADRON: 8 on. 9 10 DR. KILGOUR: I had sent out a --11 12 MR. STAFFORD: That review panel, those motions, they were just 13 to bring to this panel, right? 14 15 DR. KILGOUR: They were to bring to this panel, and they will 16 also be presented to the SSC and to the council, as part of 17 their briefing materials. 18 19 MR. STAFFORD: All right, and so we should be looking at those 20 to sort of see if we want to go with one of them or all of them 21 or whatever, right? 22 23 I can bring those back, show you the motions DR. KILGOUR: again, after you've seen all the information, if that would make 24 25 you more comfortable. 26 27 **AP MEMBER:** Could you explain the indexing? 28 29 DR. KILGOUR: I'm going to punt that one to Tom. 30 31 AP MEMBER: Okay, because I'm not clear on that. 32 33 MR. MATTHEWS: That came up pretty quickly at that meeting. I'm sorry to have to go back a little bit further, but all of us 34 knew the ACL wasn't working, and I tend to think that's because 35 36 it's a static number. We set it and if things get much better, 37 like they were in the 1990s, it's going to be bumped into again, and there's no reasonable method to just create a number that 38 39 would make it high as it was in the 1990s. 40 41 I have always had a problem with what I'm calling a static ACL. 42 If the fishery gets better, this rule is going to say we're 43 having a problem. It's been going on for fifty years. Things 44 are fairly stable. They could be better, but there's no reason the actual level of landings is a problem. 45 46 47 Most fisheries have good stock assessments, because they 48 understand the stock. It's in a local area. We don't have that

for spiny lobster, because it goes from Brazil to Bermuda. Who 1 2 knows what Bermuda has to do with this fishery, and so it's hard 3 to sort of understand that entire stock, but that stock 4 assessment gives you a variable number of lobsters every year 5 based on the math for what you know about the area, and then it understands fishing effort. 6 7 8 The core numbers in the stock assessment are what we know about 9 the population, based on people measuring the size of things and the age structure, which we can do with fish, because we have 10 11 the ear bones, and we actually know the age of the fish. We 12 don't have any of that for lobsters. 13 14 We also really don't have a good measure of how much effort 15 there is. A trap in the water in August is very different than 16 a trap in the water in March, and so it's just really hard for 17 us to understand effort, but that's the core of a stock 18 assessment, the age of the fish and the amount of effort. 19 20 The reason the stock assessment doesn't work for spiny lobster is because we can't relate all of those things back to what it 21 22 takes to produce a number of babies in the fishery, but we can start to understand effort a little bit, and so the idea of the 23 24 index is to actually do a lot more work on understanding what 25 effort is in the fishery. 26 27 For example, in 2013, or even 2014, when the price finally 28 averaged over ten-dollars a pound, there was an awful lot more 29 effort in this fishery, because people kept fishing later into 30 the year. Did that increased effort actually take more lobsters 31 from the population? 32 33 My proposal is to understand that effort, and, if we actually did have more effort and take more lobsters from the population, 34 35 incorporate that into the ACL. Basically, it takes the math 36 from a stock assessment and makes that the trigger, the 37 accountability measure, to determine if we're breaking the ACL. 38 39 If the population is going up, the size structure doesn't change, effort doesn't change, things are going great. 40 We don't 41 trigger any management action, but if the size goes down, if 42 effort went up, and landings didn't really change, that's a 43 warning sign, and we would have to figure out how to incorporate 44 that data in. 45 Would all three of those have to be intact, the 46 MR. IRWIN: 47 size, the age, and the effort? All three of those would have to

be met, a criteria met, to go into the indexing format?

2 At this point, I can't really say even how that MR. MATTHEWS: would be done, but the concept would be to get our stock 3 assessment people in to talk about how to generate that trigger, 4 5 but certainly I think that might be a potential recommendation from a board like this, which metrics do we think are critical 6 to watch for, and then we could hand that over to essentially 7 8 our stock assessment people and come back with proposals that 9 meet whatever those criteria are.

1

10

14

32

44

11 **MS. STAFFORD:** I have a question about the rolling index. Would 12 that weight more recent catches differently than earlier 13 catches, or how does that work?

15 MR. MATTHEWS: The two proposals that came out, basically all of 16 them develop -- I am going to call it a static ACL again. The 17 rolling index, the idea was, and this was a little bit guided against by council staff, but the idea, I think, in the proposal 18 19 was, every year there is a new year, to have a set amount of 20 time, for example ten years, and every year to drop the ten-year 21 old data and add the newest data. 22

23 If, obviously, the newest year was a good year, that would bump 24 the ACL up. If it was a bad year, that would bump it down. In 25 general, there are some problems with that. If the landings are 26 going up because you're fishing harder and taking more, you're 27 chasing it, and if the landings are going down, because the 28 fishery is collapsing, again, you're chasing the collapse, and 29 so the rolling average doesn't fix things or isn't really that 30 adaptive. It's always running late, but the idea was that it 31 would be the most recent number of years.

33 MR. NICHOLS: I don't know if this is a good time to bring it 34 up, but I understand the rolling averages and all that, but 35 there's a lot of things Tom was bringing up, which is really 36 good data, but being on the water for the last forty years and 37 right on the trigger of things, from when we started the trap reduction, some of it is really -- To me, it kind of bothers me. 38 39 It's one of my points of being here, more than anything, but we have reduced these traps now from a million traps down to 40 41 somewhere in the four-hundred-thousands, and I was supposed to 42 get a number, but I didn't get it yet. Maybe you have it, Tom, 43 as of today.

45 One thing is that these lobster population, and this year was a 46 really good sign of it. We had a tremendous season in the 47 middle upper Keys last year, mainly on the ocean side, in Hawk 48 Channel, and around the bridge areas and stuff, where the

inshore fishermen caught fish. This year, there were 1 no 2 lobsters, almost, to speak of, and we probably were 60 or 70 percent down on the inshore side of the Keys, but, on the Gulf 3 4 side, they had a tremendous season. 5 Something with the trap reduction that's really of interest is 6 7 we have a lot less traps in the water. We are also fishing --8 We can't fish all the areas we used to fish when we used to have 9 a million traps. There was a lot more area being fished. 10 11 What happens is we concentrate a lot of traps into a smaller area when we find fish, because we are efficient at catching 12 lobsters and we know the price of lobsters drives us to go find 13 14 them, but when you have the smaller boats that fish the inshore 15 waters, those boats don't chase the fish around like the guys in 16 the Gulf. 17 18 Consequently, something that doesn't go into all of this is we 19 have a lot less traps, but we also fish a lot less area. It 20 only makes sense, if you have a million traps, the amount of 21 area that you can spread the traps out is quite considerable 22 compared to the 400,000 number that we are doing now, and I just 23 -- Somewhere in that equation or in your planning, there's a lot of times -- If the price is low, the fishermen don't fish hard, 24 25 granted. 26 27 The price drives the fishermen to fish, but I can tell you that 28 I fish my traps from the beginning of the season to the very end 29 of the season and usually, no matter what you do, you can --30 Even Tom's data is perfect on that in January, but you start the 31 real drop in the catch. No matter how hard you work, you can 32 only catch what's there, and the lobsters aren't -- There is a 33 small migration in certain areas that you can catch a little bit 34 of lobster. 35 36 Down in Key West, they get some really good runs in March, but, 37 for general purposes, you still land only a lot less lobsters in 38 that end of the season time, but the main point that I have is 39 just, as we reduce these traps, we have a lot less effort in the fishery. We cover a lot less ground, and still, there's still a 40 41 lot of the guys -- It's an areal thing. I just wanted to bring 42 that up from the fishing standpoint of being on the boats every 43 day and being around the industry for so long. 44 45 CHAIRMAN PADRON: Any other comments? Then moving on. 46 47 DR. KILGOUR: I guess the next part is the discussion of the --48 I have emailed this link to everybody. I hope that you all had a

chance to play with it a little bit, but, right now, we have the 1 2 -- It's a little sticky, in that you can only play with one metric at a time, but if you look at the middle left, where 3 4 those little years are, you can play with the years. 5 6 If you did what the review panel recommended and used the entire 7 time series, your ACL would be much greater, and, if you look at that, it would be -- Right now, it's 7.32 million pounds. 8 Ιf 9 you changed it to the entire time series, it would be about 9.6 10 million pounds. If you use the highs and the lows, the --That's what the review panel had recommended, but I wanted 11 12 everyone to have the opportunity to see how this would work. 13 14 One more thing that you can do is the second selection box, 15 under current stock management metrics, at the top left, if you 16 play with that and toggle between the different metrics, you can 17 do the ACL, the ACT, and the OFL. Now, if you wanted to do all 18 three, you can't mess with the years. We haven't fixed that 19 glitch yet, but you can look and see what range of years you 20 thought would be most appropriate, but has everybody had a chance to look at that or was that lost in translation with my 21 22 emails, because it's difficult to put in the briefing books, 23 because it's a website, and so I tried to include it in every email, but if you need time to play with that or to look at it, 24 25 then you can. 26 27 That was pretty much the overview. We just wanted to let you 28 know that that decision support tool was available for you. The 29 data is in there. If you wanted to look at a different range of 30 years, you could, when you're making your recommendations. 31 32 If you thought that more than just years would be appropriate, if you wanted to do something like what Tom had suggested and 33 34 include other data in making your recommendations, now would be 35 the appropriate time to discuss those. We didn't bring that to you. We just brought the range of years, because that's what 36 37 the review panel recommended, but if there's something else you would like us to look at to bring to you in the future, that 38 39 would be okay to do, too. 40 41 CHAIRMAN PADRON: One second. I think Bruce had a question. 42 43 MR. IRWIN: What was the increase that the review panel -- What 44 was the increase, and it was total landings, correct, for recreational and -- What was the increase of the ACL? 45 46 DR. KILGOUR: It went from about 7.32 million pounds to just 47 48 under 9.6 million pounds, and so using the entire -- If you will

recall, when they decided on the ACL, the ACT, and the OFL, they 1 used 2000 to 2009, which had been the historic low in the 2 lobster fishery, but they thought that that was the new normal. 3 4 The virus had surfaced and was starting to be studied, and they 5 thought that that was the new normal, but, based on landings data, it looks like they're starting to increase again, and so 6 that's why the review panel thought that maybe the entire time 7 8 series would be more appropriate.

10 If I get this right, the review panel has suggested MR. IRWIN: that we raise the ACL drastically, I would call that fairly 11 drastic, but also put in a trigger mechanism of some kind of 12 formula with size, age, and effort, that that would trigger it 13 instead of -- That's why the number is so high? That's a better 14 15 way -- The formula of size, age, and effort, is a better formula 16 than the ACL and so that's why it's being raised so high? 17

18 Just to clarify, the review panel this time met DR. KILGOUR: 19 for two hours on a webinar, and so these were some of the 20 mechanisms they thought would be appropriate. Ultimately, there 21 probably some more consideration on should be different 22 mechanisms to trigger the ACL or different metrics to determine 23 the ACL, but what they have to work with now is landings. We 24 don't have a new stock assessment, and so they thought this ACL 25 keeps getting triggered every year and so perhaps it was set too if you have an alternative method 26 but, low, for an 27 accountability measure or an ACL trigger, that's why we brought 28 you all together. You're on the water. You've seen what's 29 going on. Mr. Gregory might have some more input. He was on 30 the review panel, and if he had something else to add.

32 MR. GREGORY: The landings part is totally separate from the 33 index that Tom was talking about. The index that Tom was 34 talking about is something that's going to have to be studied, 35 because the critical thing there is what is a measure of effort? 36 Is it the number of traps in the water or the number of days a 37 trap is soaked or how many times a trap is pulled?

38

31

9

39 That's the elusive part of all that, and so that's not something we can figure out right now. What you can think about is the 40 41 review panel people -- Some of us were thinking, in the 42 beginning, before these motions actually happened, was simply to 43 have a motion to say to the council that you need to develop a 44 better ACL system, because the current one doesn't seem to make 45 sense for lobster, given the life history of lobster and given a statement that Tom made at the review panel last year, which 46 really captures the whole thing, to me, which says anything we 47 do to improve this fishery is going to make it look like it's 48

overfished, because the ACL will be exceeded. 1 2 3 That's contradictory to what we're trying to do with management, 4 and so we need a better way of doing the ACL. The simplest way 5 of doing it is the proposal that you use all of the years, and so that gives you all the variability. Now, if we go to the 6 Scientific and Statistical Committees with a series of options 7 8 like this, it gives them something to think about and something 9 to look at. 10 If you haven't had a chance to play with this or -- Play is 11 probably not the right word, but to work with this, to see how 12 13 the ACL and the ACT changes with the variation in years, I would 14 encourage you to do so, and we could even probably do a webinar 15 on it if you wanted to. It is confusing at the first glance, 16 but it can be very instructive, and, right now, we're looking at 17 simple averages and standard deviations. 18 19 There is other ways to try to calculate ACL. The South 20 Atlantic, with most of their data-limited species, were looking Like they would set the ACL at the 80^{th} 21 at percentages. 22 percentile, which means 20 percent of the historical landings 23 would be above the ACL. 24 25 I think it's obvious to us that something has changed in the 26 fishery that may be simply driven by the price, high price. In 27 talking with you guys, it seems to be that the population is 28 changing also. How do you measure that change in the future? I 29 think that's what Tom was trying to get at. Up until now, we 30 have no mechanism, that I know of. FWC has no mechanism to 31 track trends in the population and say the population is higher 32 this year than it was last year or there is a trend going up or 33 a trend going down. 34 35 That would make it much easier, if we had that, and so we're 36 just looking for ideas on how to get us out of this conundrum, 37 which is, as things get better, it actually makes -- The ACL 38 suggests you're overfishing and things are not getting better, 39 and that's the real problem. 40 41 Most other data-limited species we know less about them. We 42 don't know that they have external recruitment. We don't know 43 about the details of why effort may be changing, and so that makes this a little more complicated, because we know enough to 44 know that this is the wrong approach, but we haven't really 45 captured the best way to get out of this difficulty. 46 47 48 If I might, a couple of things. If we take into MR. BURTON:

account all the years instead of just 1990 on, that makes our 1 job a heck of a lot easier, because we're not exceeding the 2 upper limit. We're playing with nine-million pounds rather than 3 4 six or seven, and I will talk about recreational effort when it 5 comes up, but let me ask Bruce a question. 6 7 You guys have got to report during lobster season. Is it 8 weekly? Secondly, in your report, does that involve some kind 9 of effort report, Bruce? 10 11 Actually, yes. We do trip tickets every day when MR. IRWIN: you get to the dock. You fill it in, and it tells the area you 12 fished, the amount of traps you pulled, which would be effort, 13 and the hours you fished and what your landings are. 14 Then that 15 goes to your dealer, and then I think they're on automatic, where they do it every day now, don't they? Do you guys know 16 17 that, Tom? 18 19 MR. MATTHEWS: For a fisherman like Bruce, who operates out of a 20 large fish house and things, it's electronically reported. 21 About 50 percent of the landings come in electronically, and so 22 we literally get those daily. About half the gear is manual, 23 and that's required to be reported at the end of each month. 24 25 MR. BURTON: So that does take into account commercial effort, 26 correct? 27 28 MR. MATTHEWS: Yes, we generate numbers, traps they fished, soak 29 time. We generate a lot of data, but it's difficult data to work with, because, again, a trap fishing in August is very 30 31 different than a trap fishing in March, and so that's really 32 that relationship we have to understand. 33 34 MR. BURTON: You're meaning it's more successful in Sure. 35 August than it is in March. 36 37 MR. MATTHEWS: Yes. 38 39 This may be obvious to some, but how do you MR. BURTON: 40 calculate recreational catch? 41 42 MR. MATTHEWS: I've got that in the presentation I'm about to 43 give, but, every year, we do what used to be a mail survey. Now 44 it's an email survey, and so we sample people from around the state and ask them what their sport fishing season catch was, 45 what the first month prior to Labor Day, and, many years ago, we 46 47 did a similar survey, asking what their year-round catch was, 48 but that's all reporting through essentially mail surveys.

2 MR. BURTON: All right. Let's discuss that when we get to that 3 point.

1

4

17

30

5 MR. RICHARD DIAZ: I've got a quick question. I know I was late, but do they take into account, in consideration, 6 the storms that we had in the past ten years and how we haven't had 7 storms in a long time, you know the trap loss and the amount of 8 9 lobster that are actually being caught after hurricanes and during hurricanes and the recuperation time that we have to get 10 to get back to where we were? 11 12

- 13 MR. MATTHEWS: No. As Bruce pointed out, the landings are 14 simply what you all send in every day. Certainly a modeling 15 effort could understand trap loss, were there lobsters lost due 16 to the storms and things like that.
- 18 MR. DIAZ: I'm talking more in reference to like our traps, our 19 gear, and so the amount of lobster that we're going to catch on 20 a year that we have two or three hurricanes is going to be a lot 21 less than a year that we haven't had hurricanes. 22
- 23 At the beginning of the early 2000s, we were having a lot of 24 storms. We were losing a lot of gear. There was a lot less 25 people in the industry. People are starting to get back on their feet and get back to their normal amount of gear, and so 26 27 we're increasing our catch, but, at the same time, it really hasn't changed. It's just that we're getting back to where we 28 29 used to be.
- 31 MR. MATTHEWS: We do have a paper actually in the process of being worked about the effects of hurricanes. Absolutely, years 32 33 like 2005, with the four back-to-back, the three hurricanes 34 during the season, was the lowest landings year ever. That probably had more to do with the storms and the effects on the 35 36 fishermen than the lobsters, but, again, these are hard things 37 to figure out until you sort of look back ten years. 38
- 39 MR. DIAZ: Absolutely. I just -- My question was you all take into consideration what we're catching, what month of the year 40 41 it is, our landings, but do they also take into consideration 42 things like hurricanes and stuff, because it is a big effect on 43 a fisherman, and it's not necessarily the amount of lobster, 44 because there's plenty of lobster there, but we've just got a quarter of our gear, half of our gear, that we're fishing, and 45 then it takes time to recuperate after a storm. 46 47
- 48 Of course our landings for that year are going to be drastically

different, and if they're not looking at why, they're just 1 looking at numbers on a piece of paper, it's going to look 2 ridiculous, four million to seven million to nine million, but 3 4 they're not looking at now, instead of however many millions or thousands of traps are in the water, you've got half of that 5 6 gear now. 7 8 MR. MATTHEWS: I would say certainly the biologists in the Keys 9 are very aware of the effects of hurricanes. I think we talk with the fishermen quite regularly about that, but, to calculate 10 the ACL, 11 Ι would say, overtly, those numbers were not 12 incorporated. 13 14 Chester, I know you had a question from CHAIRMAN PADRON: 15 previous. Go ahead. 16 17 MR. BREWER: Thank you. In reading the materials before the meeting, and I did that because I'm going to confess that I 18 19 don't know that much about lobster. Bob Burton knows a lot more 20 than me, and I'm sure some of these commercial guys over here 21 know a lot more than him, but what struck me is that this is a 22 commercial fishery for which ACLs don't work very well. 23 24 Tom said that, some years ago, a prior -- I guess it was a 25 council that sent a letter requesting that this particular fishery not be necessarily managed by ACL-type management 26 27 processes, and, in many, many of the commercial fisheries that 28 NMFS deals with, ACLs work pretty well. Since I am 29 recreational, I will gratuitously throw in there is a whole lot 30 of recreational fisheries where it does not work very well. 31 32 This, to me, is a commercial fishery that would be best managed 33 by some sort of ratio of abundance, where you're not having to 34 get down to the absolute lick-log of, okay, we can only catch so 35 many lobster in a particular year, but rather taking a look at, 36 with doing what we're doing right now, the number of traps that 37 we have, what is happening to the lobster population? Is it 38 stabilized? Is it going up as a trend? Is it going down as a 39 trend? 40 41 In that fashion, you might be able to better manage this type of 42 commercial fishery, and, getting back to that letter, it may be 43 that NMFS or NOAA didn't really understand that the lobster 44 fishery, commercial lobster fishery, in the Keys particularly, is different, and it is much different than a lot of the 45 fisheries that we see commercially for finfish. 46 47 48 I am just wondering if a thought that you might want to send up 19

1 to the councils is let's try that again, because what we're 2 really talking about here is we're talking about ways of sort of 3 managing around ACLs. I am just wondering if another letter or 4 another attempt might be a suggestion to go up to NMFS and NOAA. 5 Thank you. 6 7 CHAIRMAN PADRON: Hold on, Doug. I had a question over here 8 from Ms. Jessica. 9 MS. MCCAWLEY: I was just going to try to respond to that. 10 Ι was the one that pushed for the letter the last time. 11 Ι appreciate where you're coming from, but I just don't think 12 13 that, unless Magnuson is actually changed, that there is a way 14 to get around this. 15 16 Basically, NOAA's hands are tied that they have to use this ACL, 17 no matter how we figure it out, to manage the fishery, and so until Magnuson can be changed, which is something that the FWC 18 19 has been pushing for, that it be changed to exclude lobster from 20 the ACL requirement, then, to me, we're stuck. 21 22 MR. DIAZ: I've just got a quick thing to add there. I'm a fifth-generation fisherman in my family, and, because of a lot 23 24 of these laws and passes that you all make, you pushed us out of 25 a lot of other industries, leaving us to pretty much singularly 26 to fish for lobster and stone crab. You pushed us out of a lot 27 of our fin fisheries that, when lobster and crab was bad, that 28 we would be able to fall back on, because every year is 29 different. 30 31 If I look at numbers and I say I'm fifth-generation here fishing 32 and the numbers are still increasing, I would say that we're 33 doing something right. We're not hurting the industry. The 34 numbers keep increasing, and so obviously our methods and 35 whatever we have in action now to protect and preserve is 36 working very well. 37 38 CHAIRMAN PADRON: One second, Mr. Tony. Mr. Doug had his hand 39 up first. Go ahead, Mr. Doug. 40 41 MR. GREGORY: It was the same thing Jessica said, that this was 42 a congressional thing that every fishery in the country, with 43 few exceptions, has to have an ACL, and so NMFS could not give 44 us an exemption. 45 46 It has to come from Congress, and I know that the local 47 organization, through Bill Kelly, has been working with a 48 lobbyist to try to get something changed, but the language I

1 have seen in the draft bills before Congress now come close to exempting lobster, but they don't do it, and nobody has really 2 made an effort to say lobster specifically is exempted. 3 4 5 I think there's probably a reluctance to that, because they don't want to open the door to getting a whole list of species 6 7 that people would ask exemptions for, but, if you read that 8 language carefully, it doesn't really exempt lobster, because it 9 says largely this or largely that, and so I don't think there's going to be a solution from Congress any time soon, unless we 10 get lucky, and so trying to resolve this problem is our best 11 12 bet. 13 14 CHAIRMAN PADRON: Tony. 15 16 MR. IAROCCI: Thank you, Mr. Vice Chair. Doug, you said pretty 17 much, and Jessica, what I was going to get into, but, to that point, Dr. Crabtree called me Friday, and we talked about 18 19 exactly what you just said on the record. 20 21 One variable that we don't take into consideration, and a lot of 22 you guys remember way back when, whether you were diving in the 23 Bahamas and shorts were taken and eggers were scrubbed, the same 24 thing as what was done in our fishery when a lot of the stuff 25 was harvested. 26 I just returned on Friday from Nicaragua, and I'm going to get 27 28 right on the recruitment right now, just to say, because a lot 29 of people aren't aware of how this recruitment has changed. Х 30 amount of years back, we did put a closed season in throughout 31 Central America. They had a year-round fishery down there, 32 throughout Central America and the Caribbean. They took 33 everything. They scrubbed the eggers and they took the shorts. 34 35 I had the privilege of getting this paper, done by Tom Matthews, 36 that goes into the detrimental effects of harvesting undersized 37 spiny lobster and the weight gain and egg production and 38 everything like that. I simplified it in a lot of areas 39 throughout San Andres, Columbia; throughout Honduras; and 40 throughout Nicaragua. 41 42 We all know -- We did DNA testing. I did some of it, but we all 43 know that we have external recruitment. Since that closed 44 season, which they do call -- This is a book from San Andres, You see the spiny lobster. At the beginning, as all 45 Columbia. fishermen do with regulations, you're putting me out of business 46 47 and we need to fish year-round. 48

When we passed this, every one of those fishermen down there 1 called me every name in the book. 2 They said I did this and I 3 did that. I was like, I don't know if I want to go back down 4 there, but, slowly but surely, after the first closure, second 5 closure, third closure, now they're not scrubbing the eggers. They're not taking the shorts. They are harvesting a better 6 7 lobster. 8 9 We've got better external recruitment. They've had the back-toback best seasons they've ever had, where their fishery was 10 almost on collapse, when I was putting this stuff together down 11 there with the fishermen. Needless to say, that has affected 12 13 our fishery, and we've got to look at this. 14 15 This is not going to -- Unless we get weather -- Richard, you 16 said the same thing. Unless we get a hurricane or we get some 17 kind of virus or something comes on, our recruitment is there, 18 unless something changes in the Caribbean. We're going to keep 19 seeing this recruitment go up and we're going to keep seeing 20 this fishery rise. 21 22 Doug, you're absolutely right that we can't keep -- In a perfect 23 world, this fishery would not be managed under an ACL, but it 24 is, and so we've got to come up with a mechanism to get a large 25 enough ACL so, as this does progress, it doesn't look like we're overfishing. Bruce, you said it and Richard has said it. 26 This 27 fishery should be a model. It should be a model of how 28 fisheries have been managed. 29 30 We have reduced, we have addressed all of our issues. We've got 31 a very -- I think the key word is "sustainable", but we've got 32 an undercapitalized, sustainable fishery, down to a science. Each fisherman has got their niche in this fishery. 33 The 34 marketing is there. It has changed over the years from the live 35 to the whole and back to the tails. It is changing everywhere, 36 and we've got to change with that. 37 This management definitely needs to change. We are managing 38 39 under an ACL, but we've got to address it where, to simplify it, we have a large enough ACL where we don't have to deal with it, 40 41 but we've got to have back-ups, if we do have other -- If we get 42 weather or something like that to consider, but I want everybody 43 on the management end to look at the recruitment aspect of this, 44 because we have never had the kind of recruitment that we've got now, where they were scrubbing those eggers, and we do know it's 45 external recruitment. It's been proven. 46 47 48 We've got recruitment through the roof right now, and that's

affecting this fishery big time. They're catching more shorts, 1 2 because they're not harvesting them. They're letting all the eggers go down there, and that just adds to the recruitment. 3 4 How far up and where else it goes, I don't have a clue, but we 5 do need to work closely and get better data out of the 6 Caribbean. 7 8 I know, Tom, you were in Honduras, but once we can get more of 9 that into what's going on here, that shows how our recruitment is going up -- I think, over the years, we've averaged catching 10 a, except if you're fishing to the west, the same size. 11 Tom, you said that the poundage is there, but this year and last 12 13 year, I've seen -- I've seen it on the boats and at the fish 14 house. 15 16 These guys are catching from a legal lobster on up all across of 17 variable sizes, that shows me, once again, this stock is 18 healthy, because you do have that stock of all variable sizes. 19 It's not just harvesting that one set stock. You go to the west 20 and everybody knows you catch the big ones. 21 22 CHAIRMAN PADRON: Gary and then Simon and then Richard. 23 24 MR. NICHOLS: Tony, with that, that's absolutely 100 percent of 25 what I feel that the recruitment -- I go to a lot of those I've been down in Mexico, for instance, and you can 26 countries. go just about anywhere in Mexico, go to a restaurant, and when 27 28 they serve you a lobster, a lot of times it has the eggs 29 attached to them and you're like, holy mackerel, what are you 30 guys doing to yourselves, but that's something where we need an 31 outreach program from our end of things, our industry hopefully, 32 through our management measures or whatever. 33 34 We need to continue going down to the other third-world countries and trying to prove that, and so hopefully that will 35 36 be contagious from just Columbia, maybe down to Mexico, because 37 Mexico has a heck of a population of spiny lobster too, and 38 that's -- They still actually harvest quite a few of them, 39 because we dive a lot of Mexico and I have a lot of friends and 40 so on and so forth. 41 42 Anyway, the thing on the hurricanes, is there a way -- Since 43 we're trying to work with something that I think is really 44 broken -- I mean obviously we would all like to recommend taking the lobster stock out of the ACL deal, but is there a way we 45 could take those hurricane years somehow, a year or something, 46 47 out of that, so it's not into the parameter or into your graph? 48

It's not only -- It's exactly what Richard was saying. When we 1 2 have the hurricanes, it affects the migration. You do not catch lobster, especially in our area. Not only are you -- Say three 3 4 or four years out of about five or six back in the early 2000s, 5 we had hurricanes, and my landings went -- They were 50 percent or more down. 6 7 8 First of all, I had no traps. We had over 50 percent of the 9 traps destroyed, and so we couldn't fish, and it takes a long time to recoup them, but when you got the traps reset, we didn't 10 have the lobster themselves, the -- It's kind of like this year 11 the lobster were set off on the Gulf side of the Keys. 12 Up in 13 the northwest part of the Keys, there was a population. 14 15 Last year, that population was over more to the east and out on 16 the ocean side, like I was saying before. These lobsters seem 17 to congregate, for whatever reason, and Ι think it's environmental. From forty-two years of lobster fishing, I think 18 19 it's more environmentally-based from the temperature. This 20 year, we had really hot temperatures. I think they moved from 21 the shallow water to the deeper water in the Gulf and, for 22 whatever reason, that shallower water on the inshore -- They 23 moved to the deeper water. 24 25 They were out toward the reef and stuff, on the ocean side, but, 26 when you have a hurricane, that throws everything into a 27 turmoil, and that migration, I've heard, goes to Miami and goes 28 to Key West. That's out of the range of where the normal 29 fishermen or the biggest percentage of the fishers are, and so I 30 don't know if there's a way we can take this system and modify 31 it slightly so that we throw out those hurricane years, just to 32 kind of go with what Richard was saying, and that's about it, 33 but I do applaud you. That's awesome news, and it's really good news for us fishermen, because if we don't do something about 34 35 that, we're just kind of going in the wind here and it really 36 doesn't -- I mean I want to catch lobster. 37 You guys keep talking about the price. As a fisherman, we don't 38 39 fish for the price. We've got to make money. We've got to catch as much as we can to pay the bills, and it really doesn't 40 41 matter what the price is. 42 43 Actually, when the price is lower, I actually put more effort 44 probably into it than I do when the price is higher. This year, with the stone crabs, it's so hard to sell a stone crab. It's 45 incredible, and so you have to catch more pounds, and so I work 46

24

twice as hard catching stone crabs for less money, and so you

guys kind of got that a little bit screwed up. We don't fish

47

1 because it's higher. We fish because it's lower, because you've 2 got to have money to pay bills, and so I don't agree with that 3 particular statement exactly. 4 5 CHAIRMAN PADRON: Tony, I will let you finish and then Simon. 6 7 MR. IAROCCI: Thank you. Gary, to your point about it's -- In 8 Mexico, they've got cooperatives down there now, and they are 9 targeting the whole lobster, and they're looking at the same Some of this documentation that -- Tom has been to 10 thing. Mexico, but, also, it's not just Columbia. I basically work out 11 of Nicaragua, but a lot of the boats come there from the other 12 13 countries and fish those banks, and so it's Nicaraqua and it's 14 Honduras and even Belize right now. 15 16 All the countries that were harvesting shorts and scrubbing 17 eggers have seen the light, and it's pretty basic. Tom put together this, and it comes -- I mean I'm not going to waste the 18 time reading through it, but it shows you, just from the size 19 limit, how many more eggs and how many -- The price is going, 20 21 the price of the better quality lobster and the whole lobster. 22 23 Like you said, it hits you in the pocket and it's not rocket science. I say that a hundred times to those people down there. 24 25 This is basic. You take babies out of the equation or mothers 26 out of the equation and you don't have any recruitment, and the 27 best thing to do with these guys too is to drink a lot of rum. 28 It gets in thicker. 29 30 CHAIRMAN PADRON: Go ahead, Mr. Simon. 31 32 MR. STAFFORD: Like what Doug was saying about -- It seems like 33 it's more of a political thing to get rid of this ACL. Should 34 we spend our time lobbying Senator Rubio and Carlos Curbelo and 35 whoever, the Natural Resource Committee in Washington? Is that 36 the way to get the thing changed, and should the AP send letters 37 with data from the staff to get that moving? I mean maybe 38 that's the way to do it. 39 40 The AP cannot send letters. The council cannot MR. GREGORY: 41 even send letters. I mean we're not allowed to lobby Congress, just like certain 501(c)(3) organizations are not allowed to 42 43 lobby Congress, but, as individuals, you can do whatever you 44 want, and council members can do what they want as individuals, but none of us can do that and say we represent the council or 45 46 represent the AP. 47 48 I mean you can take the results of a meeting that are published

information and say the AP voted to do this and use that on your 1 own, but you're not representing the AP, and the AP certainly 2 3 can't write a letter to Congress, and neither can the council. 4 5 CHAIRMAN PADRON: One second, Ms. Mimi. Richard had his hand up 6 and then you. 7 8 I just wanted to comment on what he was saying. MR. DIAZ: It's 9 commendable on the preservation in South America. Of course, everybody in this room as fishermen, we're in this to catch 10 lobsters, and so if you leave it up to a human being, we'll take 11 everything that's given to us, and so we definitely need 12 13 regulations. We need people to keep us in line, because we'll 14 take it all. 15 16 As far as fishing, we fish because it's our job and we've got 17 That's what puts food and clothes on our children's back to. and makes the money. It's not because of the price. The price 18 is great, but, in all fairness, because of the market in South 19 America and all that that's ruined our tail industry and it's 20 21 ruined our ice industry, now we're solely based on a Chinese 22 live market, which how long that's going to last, we don't know, 23 but they're importing the short tails, the egg-bearing lobsters, 24 and they're packaging them, single eight-ounce tails, ready to 25 serve, cheaper than they will buy them from us. 26 27 They're putting us out of business and affecting our economy, 28 and we're just fishing because we've got to, not because of a 29 price. The price, to us, is -- We would love a high price, but it's not going to affect us. We're going no matter what, and 30 31 they know that. That's why they screw us on the price. 32 33 CHAIRMAN PADRON: Ms. Mimi and then Mr. Peter. 34 35 MS. STAFFORD: I was just going to follow up with what Tony had 36 said and how that has affected the recruitment, and I wanted to 37 ask Tom if there was -- I'm sure there's collaborative research going on as far as the changes in their population dynamics down 38 39 there. Are there some papers that we could look at or is there 40 some data that would help us to predict some of the recruitment? 41 42 MR. MATTHEWS: FAO, actually just this year, published an update 43 on landings in every Caribbean country. Landings peaked at 44 about the same time ours did, in about 1999, and have slowly declined since then, and so there are fewer lobsters being 45 landed today and generally more effort. In general, there is 46 more pressure on the spiny lobster population than there has 47 48 ever been before.

2 In Florida, we monitor recruitment, looking at the little clear animal called the pueruli, the larval stage that comes in. 3 4 That's been basically flat for thirty years. Before 2000, that 5 worried me, because I was worried we were just not measuring the right thing, but, since recruitment has stayed where it is and 6 we had this decline of 30 percent starting in 2000, basically it 7 tells me that recruitment really hasn't changed and what 8 9 happened here, with the decline in 2000, was a local response to those animals we had coming in. 10 11 12 In general, every lobster produces 300,000 eggs every time it spawns. Our nice one-pound lobsters, if they're the right age, 13

- 14 might spawn three times a year. That's a million babies per 15 lobster. We've got approximately ten-million adult lobsters in 16 the Florida Keys. They're supposed to live for twenty years. 17 Every lobster is supposed to produce 200-million eggs in its 18 life. We're only after ten-million a year.
- 20 Lobsters are very fecund. They make a lot of eggs, and so 21 that's why this fishery, here and in the Caribbean, has been 22 able to sustain itself for so long. There is an awful lot of 23 egg production.
- At the right time of the year and the right place become the issues, and so, in general, we think there is enough -- When I say recruitment, I'm talking about eggs, as opposed to lobsters growing up. It's a little bit different term that you're certainly familiar with.
- 31 MS. STAFFORD: But I understand -- With the reduction of 32 importation of short lobsters, that has translated into less 33 short lobster being taken in the Caribbean, which would enable 34 them to be more reproductive. 35
- 36 Surely, if we are downstream of that production area, that 37 should have shown some indication of an increase in our local 38 recruitment, because most of what we produce here, as I 39 understand it -- There are some eddies that retain a little bit, 40 but most of it is lost to the fishery as a whole. Is that 41 correct?
- 42

1

19

24

30

43 MR. MATTHEWS: Yes, in general, we think -- A major law the U.S. 44 passed was that importation of three-inch shell length relating 45 to five-ounce lobster tails. That has taken some time to sort 46 of get into the hotels and things in the Caribbean. Right now, 47 you can still buy an undersized lobster. Not many people are 48 exporting those as much, and the reason is value.

1 2 A lobster tail that weighs three ounces is only worth a third of 3 the price of one that's regular sized, by regular sized 4 associated with a three-inch tail, and so the middlemen, who are 5 buying these things and trying to make money on the price per pound, don't want them, and so they have quit exporting them. 6 7 8 They realized that if they quit buying them that the fishermen 9 will quit catching them and delivering them, and they will deliver more poundage, and they get that percentage, and so they 10 will make more money. The fishermen, their immediate response 11 12 was to sell the tails to the local restaurants or eat them 13 themselves. 14 15 After a few years, even they started realizing that we're 16 actually eating something and not making money from it. Lobster 17 is a high-value product, and I think the compliance with those size regulations in the rest of the Caribbean and Latin America 18 19 is increasing a little bit every year and yes, that should have 20 great benefits for the whole lobster population in the long run. 21 22 CHAIRMAN PADRON: Mr. Peter, go ahead. 23 24 MR. O'BRYAN: Thank you, Mr. Chairman. I think we all agree 25 that the ACT and ACL isn't the best way to monitor this population, but I think we have to keep in mind that we do have 26 27 a mandate where we have to make a recommendation here while we 28 work on alternative methods. 29 30 If I look at the landings data from 2005 to 2006, it's pretty 31 clear that there is a good strong upward trend even with the --32 About every third year, there is a down year, but the other two 33 or three years are strongly up, and so there's a good strong 34 trend, and so it does look like the industry is recovering. 35 36 If we use the full 1991 to the current year rolling average, one good news there is it gives us a high number, and so we don't 37 38 have to worry about breaching it too often, but it's not very 39 responsive, and so every year of new data impacts that average 40 less and less. It's not very responsive to the going trends. 41 42 I understand what Tom said about chasing things, but even if we 43 look at effort, we're still chasing effort, because we won't 44 know what the effort is until the end of the year, and so effort 45 changes every year and is not predictive, but that's also chasing a number. 46 47 48 If we look at a shorter rolling average, ten years or maybe even

seven years, that would be much more responsive, both to upward years and also downward years, because now you're looking at a much smaller dataset. I think we could set that, and say a seven-year rolling average plus 20 percent or some number, so that we have a little buffer space. If they do have a really good year, we're not going to be break the ACL or ACT.

8 If we have a couple of bad years, due to environment or another 9 virus or anything like that, then that number will be more responsive to the downward trend, and we can manage that 10 accordingly. I would think, statistically, we could come up 11 with a way to -- If there is a hurricane year or a real anomaly, 12 13 you throw that number out of the average, if it's more than two 14 standard deviations off or something like that, and I think -- I 15 would qualify all of this by saying it would be a temporary 16 measure until we come up with a better method of doing this, 17 but, since we have to come up with something, I would think 18 something more responsive and flexible would be our best option 19 that would protect the fishermen on good years. 20

Being responsive, that number would be moving up as they have good years, but it would be protective of the industry if there is a couple of bad year. That number would respond and come down. I would just put that out there. I think a shorter rolling average would be better than a much longer one, both on the up side and the down side.

28 MR. IAROCCI: I totally agree. Good comments. То Tom's 29 comment, a follow-up. In the Caribbean, when I was working with 30 the Caribbean Fishery Management Council, we were at a meeting 31 in St. Thomas and the fishermen had brought up about the three-32 ounce tails on the market and the restaurants were buying them. 33

Myself, Bill Arnold, and Shepherd Grimes, who is a NOAA lawyer, we went and took pictures and we bought some and weighed them. All the places that were selling those smaller -- They were imported small lobster tails, but they were taken out of the equation, which is happening everywhere.

To the point about the stable fishery, and I'm not going to argue data with you, Tom, on any of that stuff, but they alone this year caught a million pounds, which they've never done before, and throughout anybody I've talked to down there, from Honduras and everybody, and that is because of, I honestly believe, the recruitment.

46

27

47 I don't want anybody to downplay the recruitment aspect of our 48 fishery, external recruitment. It's there and it's better.

It's getting better, and it's only going to get better, and 1 2 that's going to add to our fishery, which is going to add to the 3 problem of what we have to do here, and I totally agree on we 4 have to do something. 5 In a perfect world, the ACL would be gone and we could manage 6 The state could take -- We've talked about 7 this differently. 8 all that stuff, but we need to move on, and, Tom, if you could 9 get back into your presentation and we can get back into 10 comments later. 11 12 CHAIRMAN PADRON: One second, and then I have Bruce and George 13 after. 14 15 DR. KILGOUR: I just have a quick comment, because the review 16 panel did discuss having a rolling average, and we were advised 17 -- It was advised that when you decide on an ACL that it has to 18 be a static number. It can't be a continually rolling average. 19 That's not how the process is set up. 20 21 If you wanted a shorter range of years, that would be perfectly 22 acceptable, but, as far as using the previous ten years every 23 year to establish the ACL, I don't think we have a metric for 24 establishing it that way, and so we would have to reevaluate the 25 ACL in a new framework every year, and I don't think NOAA would 26 approve that. It needs to be a fixed target, is what my 27 understanding was from what we were told in the review panel. I 28 just wanted to make that comment. 29 30 CHAIRMAN PADRON: Mr. Bruce, go ahead, and then George. 31 32 MR. IRWIN: I feel like what the review panel came up with, the 33 9.6 million for the ACL, that is a static number. I think that's a good number, but it's also, I believe, like roughly a 34 35 29 percent increase in what it is now, and I believe you will have people that feel that that's too much, but, to alleviate 36 their concerns, I believe that we could do that index, figure a 37 formula, and weight size and age, because they're exact numbers, 38 39 for the trigger. Effort should be less weight in that formula, because effort is a -- It's just not an exact thing, science. 40 41 It's almost a prediction. 42 43 I believe that we could do that, and that would alleviate some 44 of the concerns with the people that the ACL, that maybe we're reaching too far and we're just letting everybody fish whatever 45 they want, and I think that might be something that could work 46

30

and alleviate everybody's concerns, not only the people that are

producing the product and want to -- But also the people that

47

1 are trying to save it.

3 CHAIRMAN PADRON: Go ahead, George.

5 MR. NILES: I want to touch a little bit on the recruitment, 6 too. I know that I've talked to Tom for as long as he's been 7 involved. Like he said, over the last thirty years, his 8 research doesn't show too much of a trend in recruitment when he 9 catches the larvae.

10

2

4

I was just wondering why, because it didn't show a reduction in the early 2000s, when we basically caught half of what we were catching in the 1990s. Correct me if I'm wrong, Tony, but I think that that's when the Central American countries really exploded with their price going up, if I remember correctly, because it affected our price.

Now that, like Tony says, they're implementing this stuff here in the last five or six years, it definitely -- If you look at the graph of our catches, it's definitely going up, and it just doesn't make common sense, to me, that if we're downstream and you're pouring something into the water downstream of me -- The more you pour, it seems like the more I'm going to get, and we showed the downtrend as well as the uptick now.

I mean nobody has mentioned the downtrend. When they were down there scrubbing all of those eggs and everything, our catch went down, and it seems like maybe something is broke in Tom's studies, I mean honestly, that it's not showing a downtrend some when down stream is not healthy and it's not showing an uptrend when it is healthy, and getting healthier.

I don't know how Tom does it, other than use air conditioner filters. I've talked to him many times about it, and he's always told me that it remains the same, and it just seems like something is broke there, because it doesn't make common sense.

38 MR. MATTHEWS: I'm the first to admit that we are not sure what 39 we're measuring. We've been doing it a long time. When I put devices in different areas of the Keys, they all go up at the 40 41 same time and they go down at the same time on a monthly basis, 42 and so it seems like it's a good tool. That's why we've 43 continued doing it for thirty or forty years. There is another 44 ten countries in the Caribbean that are using the same device. 45

46 Our thoughts are really that the things that control the number 47 of adult lobsters in an area, and we call it post-settlement 48 processes, hurricanes, the amount of algae -- Florida Bay this

1 year probably had a huge effect on the number of lobsters, hence 2 why you weren't catching any. Those that could leave did. Those that weren't big enough to walk away likely died, because 3 4 of the warm water and the high salt and the sulfur that was up. 5 Lobsters are, not to affect the price, but the comment is 6 they're truly cockroaches. Their population goes up and down 7 depending on how clean the environment or how clean the house 8 9 is. Yes, I'm the first to admit that I'm not sure what we're measuring with our collectors. At different years in the past, 10 we have blanketed the Keys with them, to try to understand it, 11 12 but it's the best tool we have to understand recruitment. 13 14 We're now doing studies to understand the size of thumb-sized 15 lobsters. Those animals are only six months or a year away from 16 being legal-sized animals, but it's going to be multiple years 17 before we sort of understand if even measuring those animals, 18 the size of your thumb, are a good reflection of what that future population will be. 19 20 21 I understand about the measuring lobster, Tom, but MR. NILES: 22 what I don't understand is how come when it's getting healthier downstream that you're not catching more of them. When it was 23 That's the 24 less healthy, you weren't catching less of them. 25 part that I don't understand. 26 27 MR. MATTHEWS: No, and I think your interpretation of the --28 Could we put the whole year trend back up on the data, the full 29 Yes, that's the one. That black line is lobster harvest data? 30 in the Florida Keys. It peaked in the 1990s, I would argue because of good management, the introduction of live wells and 31 32 the reduction of some of the extra traps, but, really, not much 33 has changed in the management of this fishery since 2000, when 34 that drop occurred. 35 36 That means something happened. It was very drastic, and it 37 happens to be the time when we discovered the virus. The virus 38 has probably always been here, but, for whatever reason, it 39 started showing up in about 30 percent of those thumb-sized lobsters. That's about that drop in the population. 40 41 42 Throughout the Caribbean, the virus seemed to have showed up a 43 little quicker here, but now it's basically everywhere in the 44 Caribbean, and so both overfishing and the virus has affected all of the lobsters everywhere. 45 46 47 We are still seeing the virus today, at about 30 percent, but 48 we're landing a few more lobsters. Has the virus become less

1 lethal? Is something different? Is recruitment better and 2 we're getting better survival, because of fewer hurricanes? We 3 can't put our thumb on what that is. 4 5 I would say there is simply the question of we don't know if we're returning to a better general time of lobsters and the 6 fishery is just fine or, in the last five years, because of the 7 8 increased price, are we actually harvesting more of them? 9 I am simply saying that we don't know what the current status of 10 the population is. I would love it to be returning to the days 11 in the 1990s, when the abundance was high and we were able to 12 13 harvest most lobsters, but I would simply say there is 14 significant questions out there of what's going on with the 15 lobsters in the U.S. and the Caribbean. 16 17 MR. NILES: Tom, I get all about the virus and everything, and I 18 agree with you on how many larvae survive. My question is how 19 seeing more larvae now that they're not come you're not 20 scrubbing down there and less larvae when they were? You said 21 it has maintained the same over thirty years, basically. That's 22 my question. 23 24 MR. MATTHEWS: We don't know. My thoughts, and these are only 25 The data is what it is. We have measured the same thoughts. 26 number coming in. It might not be the best tool, but it's the 27 best tool we or any other researchers have. 28 29 In the 1980s -- 1986 is when we started this project, and we had 30 a certain number of animals coming in. I would say that was a 31 little bit before some of the increase in effort in the 32 Caribbean. Effort increased in the Caribbean from about 1986 33 and peaked in the late 1990s. We were out there measuring 34 recruitment ten years before effort in the Caribbean really 35 kicked in. 36 37 Now, they have always harvested lobsters in the Caribbean. They're just harvesting more now, since about 1995 to the 38 39 current years, than they ever had before, and so our index includes times before the huge increase in harvest 40 in the 41 Caribbean. 42 43 I am having a problem of I don't know what our data means. Ιt 44 is simply what it is, that we have been measuring it for thirty full years now and there is no strong trend, up or down, that 45 has varied with the amount of fishing in the Caribbean. 46 47 I was just going to make a point about effort, 48 MS. STAFFORD:

because I think the latent effort is pretty much out of 1 mothballs. 2 I think most people who can fish are fishing. The only increase really could be a slightly longer season, but I 3 4 wonder. I mean I think the recreational is somewhat capped and 5 may be pretty static. I think our number of traps are capped. 6 7 I mean our effort is pretty well kept under control now, and 8 that's what you worry about when you have the possibility of 9 overfishing, is you worry about bringing out more latent effort and increasing the effort, and I don't think there's really much 10 room for increasing the effort that much, so that we're really 11 12 threatening the population. 13 14 MR. MATTHEWS: Back in 2000, we actually figured there were 15 about 100,000 traps that were used so ineffectively that they 16 essentially only caught one or two lobsters, on average. That's when there were about 1,200 -- I will show some data on this. 17 There were about 1,200 fishermen in the business. 18 19 20 Now we're down to 500. The guys who are left are similar to the 21 guys in this room, guys who know what they're doing and are 22 using the gear tenfold better than the guys who are now out of 23 business. 24 25 Now, those 500 fishermen have always had the majority of the 26 gear, and so we're only talking 100,000 of those 500,000 traps 27 that were around, and so I would say it's the knowledge of the 28 fishermen that has been the real change, or potential change, in 29 Again, you're using the term "latent effort", which is effort. 30 the great term to use on this. The people now know how to fish 31 a lot better, and so it's not -- Again, this is the difficulty 32 where we got to in saying what effort is. 33 34 It's not a number. It's not a single trap is an effort. If I fished it, we wouldn't have to worry about lobsters going away. 35 36 If Gary fished it, that trap is a whole lot more effective, and 37 so that's the basics of latent effort, gear in the hands of better fishermen, and that's really the biggest change that has 38 39 occurred in the last ten years, even though the number of traps 40 really hasn't changed. 41 42 MR. NICHOLS: Can I just say something about the effort? 43 There's one thing that hasn't been shown in the effort increase, 44 in the bully-netting sector. Now, granted, the bully-netting is a small part, but the percentage, if you look at the numbers 45 from the graphs that I was -- I tried to review all of this 46 47 information before I came. 48

1 Even just from the layman seeing the fishermen, that fishery has expanded quite considerably. It dropped a little bit this year, 2 3 but that was because of the weather factors more than the factor 4 of the effort factor. 5 When the lobster are abundant, there is a whole lot more, and 6 7 it's kind of a non-regulated fishery. It's totally open access, 8 and you see that percentage going up, and we haven't really 9 addressed that part of things. It's something we've talked about through OFF and Florida Keys Commercial Fishermen. 10 That effort keeps increasing, and it will increase, depending on the 11 12 weather. 13 14 This year, again, like I was saying, the inshore trapping wasn't 15 that good, and so obviously the people that were bully-netting 16 weren't catching as many lobsters this year as they were last 17 year, but if it comes up for this season and returns to the normal, like the last two years prior to this season, I think 18 you're going to see that effort keep continuing. 19 It's a real 20 open-ended thing, and it has the potential to take another quite 21 considerable amount of lobster. 22 23 I don't know if we have any access to that, but we were trying 24 to a percentage thing on the commercial quys set and 25 recreational. That particular thing, I don't think we have any 26 control over. We are controlling it all, and so there is 27 something going on there. I'm just bringing it up. 28 29 Gary is actually looking at the data from the MR. MATTHEWS: 30 presentation that we'll see shortly, and I think if you ask that 31 again when that slide is up, the rest of the group will know 32 exactly where you're going to. 33 34 CHAIRMAN PADRON: It's 10:30 now. Why don't we take a fifteen-35 minute break and then come back at 10:45? 36 37 (Whereupon, a brief recess was taken.) 38 39 DR. MACLAUCHLIN: We're going to go to the presentation from Tom Matthews, which is Item Number VII, the Lobster Fishery Issues, 40 41 so that you have kind of all the information. We talked about 42 the landings and now Tom can talk a little more about other 43 issues. Then you guys can go into a discussion and work on your 44 recommendations. 45 LOBSTER FISHERY ISSUES 46 47 48 MR. MATTHEWS: Of course, I made this a week ago, trying to

1 guess a little bit about what issues people would want to hear 2 One we sort of missed, that George particularly brought about. 3 up, was the recruitment trends. I did not show that. I wish I did. 4 5 The talk is a couple of parts. The first section of it is 6 7 really just data presentation. Studies we've done recently -- I kept in mind that this board hadn't met for the last five years, 8 9 and so I went back in time a little bit about some of our aging data, which is also an area of research we're working on quite 10 11 regularly now. 12 13 Here is the basic graph of what's going on with lobsters. We 14 measuring recreational landings in 1993. started As we 15 mentioned, that's done with a mail survey. I would break 16 lobster landings down into three period of time, starting with 17 when we started measuring the recreational through about 2000. 18 19 That was when I would say our landings -- Certainly, by looking 20 at this, the landings peaked. This was a time period of once 21 trap reduction went into place -- We started with 750,000 traps 22 and we reduced that down to about 500,000 by 2000. Then the 23 next period comes in, and something happened. Landings dropped. 24 We believe that was also a population drop, and so we lost about 25 30 percent of the lobster landings. 26 27 Noticeably, landings still go up and down, and so that's the 28 variability that's always been in lobster landings. Prior to 29 2000, a bad commercial year was 5.5 million pounds. A good year 30 was about eight million pounds, and so landings varied by almost 31 30 to 50 percent every year. That's just what happened between recruitment and things, and so that was a hard fishery to 32 33 manage. 34 35 Some years there would be twice as many lobsters. That makes it 36 very hard on the fishermen to know how much gear to use and how 37 much investment to put in, and so this was always a little bit of a fishery that was hard to work in, because you simply didn't 38 39 know how much effort you should plan in, what your expenses should be to meet the future value. 40 41 42 Then, starting in 2000, landings dropped. That takes us to 43 about 2009, where things started to get better. Landings are up 44 about 15 percent, but they're still down 15 percent from those periods in the 1990s. Right now, I would characterize this 45 fishery as certainly better than the lowest years, but not as 46 47 good as the years it was in the past. 48

This brings up the question of what has happened during these 1 2 two changes? In 2000, the biggest thing we know happened was 3 the presence of a lobster virus. We identified that virus in 4 1999. The lobsters look strikingly different. They almost look 5 like they've been cooked, and we think that virus kills about a third of the very small lobsters in the fishery. 6 7 8 Starting in 2000, the virus is still there. The same numbers 9 are occurring in the management, and so it really hasn't changed, and those are animals the size of your thumb. 10 These are animals we catch and look at, and we're pretty good at 11 understanding what's going on, what the abundance of that size 12 13 animal is. It's an animal that, as a diver, that we can look 14 under sponges and look in the algae in the bay and see where 15 they are and count them, and so it's a size class that we're 16 quite comfortable doing research on. 17 18 That leaves the question of has something changed and there are simply more lobsters out there, or I'm going to show some more 19 20 information that hints at effort and that the fishermen have 21 actually fished more in recent years. 22 23 CHAIRMAN PADRON: One second, Tom. Bruce has his hand up. 24 25 MR. IRWIN: Are we going to save questions to the end or be 26 allowed to --27 28 MR. MATTHEWS: Please, whenever you want. 29 30 One thing with the recreational landings is I know MR. IRWIN: 31 you guys do your 10 percent, you get 10 percent back on, but 32 licenses have gone up, from that period starting in I believe it's 2001. Licenses went up from like 128,000 to 156,000, but, 33 34 yet, landings have stayed the same. Every year, there is no --35 Like the commercial, you see that. How come that is just flat? 36 It doesn't make sense to me. 37 38 MR. MATTHEWS: In about three slides, I will show you some of 39 that, and it's a fun number, sort of, but let me just -- In just a couple of slides, we'll have it, so everybody can look at what 40 41 we've got going on there. We have, of course, got recreational 42 We've got the bully-nets and trappers. Those are the people. 43 main sources of harvest in the fishery. 44 A breakdown of commercial landings, only looking at commercial, 45 percent of the catch another 25 46 there is and that's recreational. When you see 92 percent here, in another slide 47

37

you might see commercial is 75 percent. That's because these

1 graphs are only commercial landings. 92 to 95 percent of the 2 catch is from the trap fishery. It goes up and down every year. 3 4 About 3 percent is diving, and bully-net is less than 1 percent. 5 Of course, that has changed over time. With the advent of casita use in the 1990s, landings by the divers went up to 6 fourteen-and-a-half percent. Casitas were a very effective tool 7 to concentrate lobsters. Divers, particularly on the Gulf side 8 9 of the lower Keys, put out thousands of these and were able to land hundreds, if not a thousand, pounds of lobsters a day 10 diving on some of these. 11 12 13 These casitas were essentially -- Think of a small four-by-four 14 card table that might have 100 or 200 lobsters underneath it, 15 and it was a very effective way to harvest lobsters for about a 16 The lobsters were really only there for the first or month. 17 second harvest, and so it's a method of fishing that really couldn't sustain harvest. 18 19 20 It was sort of taking the cream off the top of the catch, and 21 those landings did go up to fourteen-and-a-half percent. А 22 license, called the CD, commercial dive license, was put in 23 place, and those landings are back to what we think of as historic levels, between 2 and 3 percent. The number of divers 24 25 with that license is in the 200 range, and I will show a graph 26 shortly of how that number of divers has changed. 27 28 In more recent years, starting in 2013, and, again, this is when 29 the price of lobsters really went up, bully-netting went from 30 about half a percent of the landings up to about 3 percent. Again, I will show the number of people. It's about 300 bully-31 32 netters in the commercial industry in recent years, and they 33 have increased -- Even though they account for about a third of 34 the fishermen, they're only about 3 percent of the landings. 35 36 On top of those blue graphs, there is tiny little red and green 37 dots. The green is, of course, bully-netting. Today, in the 38 fishery, between diving and bully-netting, that's about 5 to 6 39 percent of the landings in the fishery. Most of it is, by far, 40 still from the trap fishery. 41 42 Recreational fishery statistics, these are the statistics from 43 2014, and so this is only one year, the most recent year where 44 we have processed all of the information from the fishery. There is actually about almost a quarter of a million lobster 45 permits. Now, to get where Bruce asked, the number of permits 46 47 has gone up 150 percent. It used to be 100,000 and now it's 48 250,000.

What's going on is the State of Florida has gotten very good at selling things to people who don't want them. We market the --The Licensing Bureau markets licensing. We package license, and so we sell a five-year license. I personally have a lifetime license, which allows me to be a snook fisherman. I have never caught a snook in my life. I have a license that I never utilize.

That what is going on with this huge increase in the number of 10 licenses. We're creating more revenue to manage the fishery by 11 selling -- I hate to use the word "gimmick", but we have 12 13 marketed it to and people are buying it and they're actually not The people who buy a license used to predominantly 14 fishing. 15 fish. Now the people who buy a lobster stamp, is what we used 16 to call it, that permit, actually don't fish anymore, and we 17 still send not all of these people, but we certainly send 10,000 or 15,000 people, a random sample of these people, and the vast 18 19 majority of them have never fished for lobsters in their life. 20 There is really a disconnect between the number of recreational 21 permits and how many people are actually fishing. Tony. 22

MR. IAROCCI: Tom, if I may, back to bully-netting. Right now, and I'm just talking about from Vaca Cut to Seven Mile Bridge, and I know up to the east of there there is even more -- Gary can probably tell me how many up in that area, but there is so many more recreational bully-netters.

29 Some nights, you can go by Vaca Cut and there might be five or 30 six commercial bully-netters and there is twenty or thirty 31 recreational. Have you looked at getting some data from the 32 recreational bully-netters of how much they're catching compared 33 to -- Or is it going to stay status with just recreational, 34 whether you dive or bully-net?

36 MR. MATTHEWS: When we actually start talking about recreational 37 fishermen, the percentage of people -- Let's say of every 38 hundred fishermen, only one or two are actually bully-netting, 39 or less than that, and so we're actually not comfortable at all 40 saying if the number is increasing.

41

35

28

1

9

It's such a small number of people, compared to the number of divers or snorkelers, that we're not seeing any trends. Now, have the numbers doubled or tripled over some time period? Very likely, but we still think, in the scheme of how many lobsters are they landing compared to the divers, it seems to still be a very small fraction.

1 CHAIRMAN PADRON: One question, Mr. Tom. I know, especially in 2 the Florida Keys, I see, many times, children under the age of 3 fourteen, I believe it is, or is it sixteen, that don't require 4 a license to get their bag limit, whether it's lobster or 5 finfish or anything. Does this 252,000 take into consideration 6 any minors?

8 MR. MATTHEWS: How we calculate what harvest is, we do, of 9 course, send out a survey to an individual person who has a 10 license. We ask them to report back their catch and their boat 11 catch. It turns out, of course, the boat catch is the one that 12 makes a difference.

- 14 In general, on most trips, there is one person on the boat who 15 catches most of the catch. They, of course, have people riding 16 along for the bag limit, and so we actually do use a group 17 catch, which is the dynamic, and so there is a lot of unlicensed 18 out there too, under sixteen, over sixty-five, fishermen 19 There is a number of people who are not included in military. 20 those permit holders.
- 22 CHAIRMAN PADRON: Ms. Mimi, go ahead.

7

13

21

23

28

- MS. STAFFORD: I just wondered, as far as the recreational catch -- You said though the permit numbers have increased significantly, you're sending out the same number of surveys every year? Is that correct?
- 29 No, we actually have tried to -- The nice thing MR. MATTHEWS: 30 about -- We used to do this as a physical mail survey, and we 31 used to only send out about 5,000. Now we send out about 15,000 32 email surveys, because, again, it's relatively easy to send it 33 out, but where we used to get a much higher response from the 34 mail survey, partially because those people were actually 35 fishing, email surveys are a little more difficult. Not all 36 people have email addresses, and so there are some technical 37 differences, but yes, we do send out three to four times as many 38 surveys as we used to. 39
- 40 MS. STAFFORD: So how do you figure the accuracy of your 41 response? If you're using a different methodology and you have 42 a different number, how do you calculate your correctness in 43 your return?
- 45 MR. MATTHEWS: When we change methodologies like this, we 46 actually follow through with a phone survey, and so the 47 methodology in a mail survey is fairly well defined. You send 48 out a survey, you send a reminder postcard, and you send the

1 survey again. The difference is in how many surveys you receive 2 the second time -- It gives you an idea of your non-respondents. 3 4 The final thing you do is an actual phone call, and so we follow 5 up, and we don't do this every year, but when we switched over to largely an email survey, we followed it up with a phone call 6 7 to some 5,000 people and asked them, did you fish, did you not 8 fish, and, again, basically asked them the same questions. 9 10 The big thing we're after is what happens to those -- What did those non-respondents do? Did they not respond because they 11 don't fish or did they just not respond, as many people do, to 12 13 telemarketers? 14 15 MS. STAFFORD: Are you seeing trends? It looks like it's pretty 16 flat. 17 18 MR. MATTHEWS: It seems to be pretty flat. We don't think the 19 actual participation in recreational or regular season has 20 increased. That's generally true for both all hunting and 21 fishing in the State of Florida. Even though there is more 22 people, there is less participation, and so, in general, our 23 society is less of an outdoor society now than it used to be, 24 and certainly less of a fishing and hunting society than it used 25 to be. 26 27 MR. GAITANIS: Tom, let me ask you this question. I am over 28 seventy years old now, and I hold a lifetime license. Am I 29 counted in that 250,000 each year? 30 31 MR. MATTHEWS: Yes, you are. 32 33 MR. GAITANIS: I have six grandchildren under the age of 34 thirteen, and they all have lifetime sportsmen licenses, and 35 they're all counted each year? 36 37 MR. MATTHEWS: Yes, they are. 38 39 MR. GAITANIS: One of them is only four, and so he has never That's question number one. Question number two is 40 fished. 41 it's my understanding that if you have a blue card that you are 42 exempt from having a recreational license or a lobster stamp 43 during the two-day sport season. Is that true? 44 45 I'm sorry, but a --MR. MATTHEWS: 46 47 MR. GAITANIS: A SPL. 48

1 MR. MATTHEWS: I apologize, but I do now know the answer. 2 Martha. 3 MS. BADEMAN: Yes, that's right. If you have an SPL and you're 4 5 recreationally -- You can use your SPL fishing as your recreational license, and that covers your lobster as well. 6 7 8 MR. GAITANIS: So you're saying that there is a fair number of 9 folks who are pretty good at catching lobster who are fishing during the two-day sport season recreationally who are not 10 receiving survey results, because they have no --11 12 13 We have not surveyed SPL holders as recreational MR. MATTHEWS: 14 I would suggest that's in the range of, in South fishermen. 15 Florida, about 1,000 SPLs, but no, we have not surveyed SPL 16 holders as recreational fishermen. 17 18 CHAIRMAN PADRON: Go ahead, Mr. Gary. 19 20 MR. NICHOLS: We're some of those guys that do -- That's one of 21 our big things with our family, to do that, and I have the 22 individual SPL, the SPL for an individual, but, having said 23 that, no matter how you slice it though, if you have a million 24 back before licenses and now you have two-and-a-half million 25 now, you're still going to have one-and-a-half times more 26 effort, seemingly. 27 28 I don't know, but just as a layman or someone who participates 29 in the dive season and diving or being out on the water as a 30 commercial fisherman or whatever, I see quite an increase from 31 the time when I was younger until now. The amount of boat traffic and the amount of neighbors that we have in our canals 32 33 and the amount of houses that are developed -- The vacation 34 rentals in my neighborhood is incredible. Ι 35 36 n Lower Matecumbe and in Islamorada, the boat traffic, in 37 general -- I don't know where the numbers come from, but just, 38 as a person on the water and a person participating in that 39 fishery, it's incredible, to me, how many people are participating, and so I don't understand this. I just know if 40 41 you have a million and then you to two-and-a-half -- I mean 100,000 and you go to 250,000 -- To me, that's still 1.5 times 42 43 more effort. I just kind of see that as a person living here, 44 as a resident. 45 MR. MATTHEWS: Yes, there certainly seem to be more people in 46 the Keys, but the participation when there were 100,000 permits 47 48 is about half of what it is now, and so that is actually an

increase still in the number of people, and so, doing some rough 1 2 let's say there were 100,000 fishermen in 1993 math, and 3 participation dropped from that 250,000 now to half as much, 4 that's still a 25 percent increase in the number of people out 5 there fishing. 6 7 There is a slight drop in catch. I apologize that I don't have these numbers fresh in my head, but there has been about half a 8 9 lobster per person drop in the last ten years, and that's why that number is relatively flat. 10 11 12 What I see, going out on the boats, is the MR. NICHOLS: 13 technology of finding the spots where the lobster are, because 14 we know where those spots are, especially being commercial 15 fishermen and being on the water all the time, but I see they 16 guys come in and out three or four times a day with a catch. 17 18 I don't know any of my neighbors that don't catch their catch in 19 a few minutes, pretty much, if there are three or four people on 20 the boat, and so I honestly don't see that drop that you're seeing. I see places that -- Places that I want to dive now to 21 22 go to with my family, and we'll go to thirty or forty spots that 23 I have already known are going to catch lobster, but it takes 24 about thirty or forty different spots to find one that hasn't 25 been gone over by somebody else. 26 27 By the end of the two-day dive season, it's pretty stretched 28 out. For about twenty years there, you could pretty much go 29 The last four or five, it's real difficult to get to a out. 30 place that isn't anywhere from three to five miles, on the bay 31 or the ocean side. I don't see that. Somehow that's not what I 32 see, my observation anyway, catch-wise. 33 34 CHAIRMAN PADRON: Mr. Burton, go ahead. 35 36 MR. BURTON: I bring this up every meeting, but poaching is more 37 rampant in the lobster fishery than any other fishery in the 38 State of Florida. I am convinced of that. There is commercial 39 poaching and there is recreational poaching. 40 41 I get the Keynoter delivered to my office in West Palm Beach, 42 just to read the marine violations, and they are not small 43 violations. Fortunately, the judges have figured out the 44 importance of this resource and a slap on the wrist is no more. It's jail time and it's confiscation time. 45 46 47 You look at the regular season as a recreational diver and, 48 about August 10 or August 11, our spots are wiped out. We're

done, and it make sense that after the end of the two-day season 1 2 that most of the popular spots are pretty much tapped out as 3 well, but this poaching problem is rampant. 4 5 We were down to Parmer's Place about six years ago, and there was a boat that ran in and ran out and ran in and ran out four 6 7 different times with eight people onboard. I might have told 8 you this story last time, but I called the marine patrol. I said here's an easy bust, I'm on the lobster advisory council, 9 and come and get them. I just got stonewalled, stonewalled, and 10 so we're kind of -- With the lack of enforcement and the few 11 12 number of officers down here, we're kind of beating our head on 13 the wall. 14 15 I don't know if there's more recreational divers down here in 16 the two-day than there were ten years ago. There is too many, 17 that's for darned sure, but I don't believe it's going away. 18 Those are my comments. 19 20 Commenting on the mini-season and the divers, there MR. DIAZ: 21 is a lot of it seems like holes in your science there, because 22 you all give out all these licenses to all these people from all 23 over the country to come over here and swim in our waters and, 24 like he said, go in and come out and take way more than their 25 limit. 26 27 It's uncontrolled. It's unregulated, and you all really don't 28 know what they're taking out, and it seems like you all are 29 on a lot of commercial, commercial, commercial, stuck 30 commercial, where all we are is regulated. We're controlled, 31 and we seem pretty sustainable. There's a lot of places that 32 need a lot more control, like the mini-season, like divers, and 33 casitas and people doing a lot of illegal stuff that I think 34 needs to be addressed just as much as the commercial fishermen. 35 36 MR. GAITANIS: I would like to -- This is purely anecdotal 37 testimony from coming to the Keys for over forty years, but 38 there was a time, during the two-day sport season, when there 39 wasn't a campsite available. That's not the case anymore. I have seen, multiple times in the last five or six years, when 40 41 there would be campsites available at Long Key. 42 43 The second thing I would like to say is I think that I'm one of 44 the more regulated fishery groups in this fishery. When I started fishing, I had no limit. Then, when the restricted 45 species came about, I became one of the known lobster mobsters. 46 After that license was closed out, then I'm back down to six per 47 48 person or twenty-four per boat during the regular season, and 44

1 now the twenty-four per boat during the regular season is out 2 the window. 3 4 The presumption that the recreational fishery is an unregulated 5 fishery, to me, is not the case. There are hundreds and hundreds of acres of habitat that we are no longer allowed to 6 7 fish, either during the two-day sport season or during the first 8 week of the season or ten days, depending on which municipality 9 you're fishing out of. 10 11 would just like to say that the assumption that Ι the 12 recreational folks are giving carte blanche, whereas the 13 commercial folks are overly regulated, I don't see that. I see, 14 in the charts, that I catch, whether we sell 250,000 or 100,000 15 licenses, it has remained virtually the same over the last 16 twenty-five years. Thank you. 17 18 CHAIRMAN PADRON: Hold on, guys. It's Mr. Tony, Mr. Bruce, and 19 then Richard. 20 21 MR. IAROCCI: Thank you, Mr. Vice Chairman. We've gone through 22 this over and over about the sport season, about the data, and, Robert, in no way -- The sport season, I think Robert had 23 24 stated, whether it's sport divers or commercial divers, you have 25 poachers and people that break the law, whether it's a sport 26 diver that goes back and forth -- He made one statement about 27 how many trips. I have seen it a hundred times. 28 29 We have enforcement in the Florida Keys that are understaffed 30 and overworked. They can't be everywhere. They try to do what 31 At times, they can't respond to all of these calls. they can. We have addressed this overcapitalization of the sport diving in 32 33 those two-day seasons. We have said this -- We made a motion 34 when I was on the Sanctuary Advisory Council that we look at 35 this tag system. We have said that. Give everybody six tags, 36 like they do in other fisheries. 37 38 Is that something that you guys would agree to to help? If you 39 don't have a tag on a lobster, anybody that doesn't have a tag, it's illegal. Is there support to do that? 40 We've talked about 41 this for years. Some people say it's the way to go and other 42 people don't, and so I'm just curious with the group in this 43 room and what they think. 44 45 MR. BURTON: If I may, we would be all for a tag system. That would solve the problem. Another solution to the problem has 46 47 already been implemented by the State of Florida, and that is if

45

you do not go to Monroe County during the two-day sport season,

1 you can keep twice the bag limit. 2 3 I live off of Jupiter. There is great lobster diving off of 4 Jupiter. They're three times bigger. Yes, there's a lot of 5 people, but it's a lot less expensive, and so that problem helped a great deal, but the tag system in lobsters during the 6 7 two-day sport system, you bet. 8 9 CHAIRMAN PADRON: Mr. Bruce and then Richard. 10 I just wanted to put on the record for the 11 MR. IRWIN: recreational guys, as someone who has represented the commercial 12 13 industry for a long, long time, I don't feel that you guys are 14 There is enforcement. underregulated. We have enforcement 15 problems with the commercial, too. 16 17 I mean, this year, the trap thieving was just unbelievable, because there were so many lobster, but I don't feel that you 18 19 guys are underregulated. I think that everybody should get 20 their fair shot at getting lobster. 21 22 I think what I'm personally questioning is the landings data. 23 The landings data is, I believe, inaccurate, and I believe it's 24 a statistical impossibility for you to have a flat line when the 25 range of commercial lobster landings have spiked up and down 26 over the last seven or eight years and the recreational landings 27 have remained flat. That just doesn't seem possible. The only 28 thing I'm questioning is the landings data, and I think we all 29 should agree that it's not a very accurate way to tell the 30 effort from the recreational fishery. Thank you. 31 32 CHAIRMAN PADRON: One second, Mr. Gary. Go ahead, Richard. 33 34 MR. DIAZ: I just want to say that I wasn't try to point out 35 technically all recreational, just like you can't put me as a 36 commercial fisherman as the same as every other commercial 37 fisherman, because we're all different. I am just stating more 38 on kind of like the mini-season. It's a big problem. 39 You don't know who is in the water, and, like you said, they're 40 41 understaffed. It's very hard for them to know who is doing what 42 they are supposed to do and who is not. They're getting a jump 43 start on our season and they are taking out quite a bit of 44 lobster in two days, and that's just by what your legal landings 45 are. 46 47 There is a lot of people that break the law that you're not 48 going to catch, and that's a problem that I don't see a means to

1 an end to until maybe you make it to people that live in Monroe 2 County, to allow them to dive, because they live here, and then 3 cut out the rest of everybody and don't let them come, because 4 they are polluting our waters. They are messing everything up. 5 They are killing everything and taking twice, four times, as 6 much as they're supposed to.

8 I'm sure you do it as a profession and you're a professional, 9 like I am, and the sad part is that there's a lot of people that 10 don't do it as a profession that we get the burn from, and we 11 all look bad. Like they say, one apple can ruin the bunch, and 12 I think diving is a hard thing to regulate, because you don't 13 know who is in there.

14

21

7

15 MR. NICHOLS: I totally agree with Bruce on exactly what he was 16 saying. Also, what Tony is saying is Organized Fishermen of 17 Florida have been pushing for these tags, so we can get -- Not 18 because we want to regulate the recreational, but we do want to 19 quantify that and make it a little bit less hard to break the 20 law. I think the tagging wouldn't be that hard.

22 I mean my family, we love to participate in the dive days. We 23 have lots of friends and family that love to come down and use 24 our house to go diving for the regular dive season, and so 25 there's nothing that I have against the recreational, but we do 26 need to have good data, a good database and a good data source, which we have in our fishery, because we have to, by law, 27 28 account for every lobster that we catch and where we catch it 29 and when we catch it.

30

31 Another thing is, by having the tags, you will absolutely register the number of participants. You will know how many 32 people are actually going after the lobster, because they're 33 34 going to be buying a tag. Maybe it's a quarter or something. 35 It's not going to be enough to hurt the guys, but you will have 36 a registered number of people and you will be able to get your 37 mail survey going to somebody that actually is participating in 38 the fishery. Then you can actually use that for a whole lot of 39 sources of data.

40

You know what? Sometimes it's just a hard time and we can't just leave. I mean, for years and years, fishermen -- The reason why we lost the net fishing in the State of Florida was because everybody wanted to go status quo, we don't want to do anything, we don't want to get involved in fisheries management, when we have the first fishermen-derived limited entry system in the lobster fishery. We have it in the stone crab fishery.

Around the world, they're having problems in a lot of fisheries 1 2 regulating themselves, and it's time by not that the 3 recreational sector gets onboard with something to quantify at 4 least what's going on, so you have a baseline, and we're just throwing numbers out into the sky here, and so, just to get a 5 baseline, register the guys by letting them get tags and then 6 you save the law enforcement a lot of trouble, because most of 7 the people want to follow the law, but it's a tendency of human 8 9 nature -- If you haven't seen a marine patrolman and you come in and you caught your lobsters and you get in by nine o'clock in 10 the morning and everybody is sitting around the pool drinking a 11 beer or something and a couple of other people show up and want 12 13 to jump on the boat and let's go out and get another limit. 14 It's right there. There's all kinds of lobster down there. 15

16 It's just human nature to do things that aren't right, but if 17 you have to put a little zip-tie that you got on the lobster, it 18 really stops a lot of that. It's just a deterrent kind of deal, 19 but, anyway, I think that's where we should go, personally.

- 21 CHAIRMAN PADRON: Go ahead, George.
- 22

20

23 MR. NILES: I would kind of like to echo what Gary started on. 24 Maybe it's time that we change selling lobster permits to 25 selling lobster tags. The whole system needs to be changed. I 26 was on the lobster advisory panel or whatever it was for the 27 state in the 1990s, when we -- Bruce was on it and Mimi was on 28 it, but we came up with the tagging program then, and the 29 problem was distribution.

30

31 The answer to this question is not going to be easy, but I'm 32 sure everybody at this table here who has dealt with other 33 fisheries understands that latent effort is a bad word in 34 fishery management, and the latent effort in the recreational 35 lobster industry seems to be huge.

36 37 You need a handle on the data. I would have to agree with there 38 is no way, like Bruce was saying, that you're flat-lined. 39 You're catching more than 25 percent of your fish in two days. 40 Only 25 percent of the people go only those two days, plus all 41 the rest of them, and so you're catching more than 25 percent of 42 your fish in two days.

43

If you have a thirty-knot wind in the Florida Keys on those two days, it's got to have an up and down in your line. It has to. It can't be flat-lined. There are years when people do tremendous, and I am realizing that you're talking end of July, and most of the time it's flat calm, but we've had years when

it's really nasty weather, and that should be reflected in your 1 landing line and it's not, seeing how over 25 percent of the 2 3 fish are caught in those two days. You don't see that in your 4 landings line, and it doesn't happen very often, once or twice 5 in every ten years, but it's not there in your information. 6 7 I am a commercial fisherman. I don't want to tell the recreational how to fix this problem, but it's huge. 8 The

9 illegal lobster that are brought in probably is in the hundreds 10 of thousands of pounds during those two days that we have no 11 idea, and I would like to see the recreational people take the 12 lead in fixing this problem, because you can't have latent 13 effort like this in any fishery.

15 CHAIRMAN PADRON: Go ahead, Mr. Burton.

17 MR. BURTON: I've got a doctor friend who lives on the mouth of 18 the canal on No Name Key, and he sees his neighbors go out a 19 week to ten days before the mini-season opens, so that they can 20 get their lobsters. Not just one boat, but many boats. I don't 21 know if you want to call them recreational people or not, but 22 they're poachers, to me.

23

14

16

24 Second of all, there is something called the Gulf Reef Survey, 25 which was just implemented by the State of Florida for those who 26 fish certain bottom species in the Gulf of Mexico. It is now a 27 requirement, to fish those species, that you sign up for this 28 survey, just to solve this problem. I recently signed up for 29 this survey. It was a little difficult to get to the easy part 30 to sign up, where it is free to, quote, add this thing to your 31 license. Maybe that's what we need on the Atlantic, an Atlantic 32 Reef Survey.

33

That would solve our problem. That and the tag system would certainly, 90 percent, solve our problem, as far as lack of data. These are commonsense approaches, and if we could implement those, we would be in like Flynn.

38

As I remind the panel every meeting, the lobster fishery and every fishery in Florida is a public resource that is owned by every citizen of this state. It is not my lobster they're taking. It is our lobster. You commercial guys have the privilege of making your living off the ocean on a resource that is owned by the public, and so let's not forget that.

46 I believe you're all, mostly, except for the guys I read about 47 in the Keynoter, very good stewards of the resource. It's 48 really not a them against us. Unfortunately, with human nature, 1 everybody cheats. I don't know who cheats more, my side or your 2 side, and I don't like it one bit, and I have tried to bring 3 justice to the system, but our enforcement won't even listen to 4 you sometimes, and so we really are on the same side, and the 5 tag system, you bet. The Atlantic Reef Survey proposal would go 6 a long way to ending this discussion.

8 CHAIRMAN PADRON: Mr. Robert, go ahead.

10 MR. GAITANIS: I don't want to belabor the point, but I would 11 like to say there are poachers and there are cheaters in every 12 group. I would like to make the point here that this group is 13 made up of the South Atlantic Council or the Gulf Council and 14 not the Florida council and not the Monroe County council. 15 We're here to represent all of the people.

17 I would like to make a couple of statements about the tag 18 system. I have listened to it for years. I just question the 19 amount of misery that it would create for a lot of folks for the 20 amount of good that it would do. You create regulations, and 21 some folks are going to figure a way around them. That's my 22 experience.

I also question -- We hear over and over that the two-day sport season is the problem. Of course, with any opening of the season, people line up at the gate and they show up for the opening day. It doesn't matter whether it's deer season or lobster season.

30 The two-day sport season was created years ago as a method to 31 offset the, quote, unquote, trap soak season. There are folks 32 want to get rid of the two-day season, and, quite who 33 truthfully, I think there would be some advantages to it, but if 34 they were to do that and create an opening day, where you could 35 put your traps in the water or you could put your scuba tank in the water on the same day, I can't imagine the carnage that 36 37 would occur at that point in time, and so I think that the twoday sport season, given that it's placed in the middle of the 38 39 week to reduce effort, is a good compromise to allowing the 40 traps to go in six or seven days early and not create an opening 41 day for everyone.

42

7

9

16

23

29

Now, I would like to also state that the assumption that when you see a boat leave a house and go out fishing three times on opening day of sport season, it does not necessarily mean that those folks are going on multiple trips.

47

48 When I would go to the Keys at a campground and there would be

1 fifteen or sixteen or twenty folks there in two or three 2 campsites and there would be one boat, an eighteen-foot john 3 boat, you can't get everybody on the boat in one trip, and so 4 that boat would go out three or four or five times in a day, but 5 it was not taking people out multiple trips. It was taking 6 multiple trips with multiple people.

7

17

35

44

8 The last thing I would like to say is that, over the years, it's 9 come to my feeling that we are enforcing primarily two 10 regulations. One, how many lobsters are assigned to the different groups and, two, how big those lobsters are. 11 When we realize that the, quote, trap discard mortality is virtually the 12 13 same as the total recreational catch, one wonders why we are so adamant about that segment of the fishery, the recreational 14 15 segment, about having the short lobsters and how many lobsters 16 they have.

18 I would also like to say that I think it's time we stop 19 referring to the loss of the fishery from using shorts as bait 20 as some nebulous factor. Those fish have been consumed by the They have not been returned free and alive to the 21 trap fishery. 22 fishery after they've been brought down. They have been used by 23 those fishermen, and, therefore, they should be considered as part of that catch and not as some nebulous factor out between. 24 25

26 As a diver, we are required to measure that lobster before he 27 ever comes out of the water, and, if he's not legal, to turn him That is what is called return to the water free and 28 loose. 29 alive, but to put him in a live well and carry him several miles 30 and then put him in another trap is not returned free and alive. 31 That's the definition that the game and fish folks use for 32 harvest. Harvest is when you don't release them free and alive, 33 and that's not what is happening to the, quote, trap discard 34 mortality. Thank you.

36 CHAIRMAN PADRON: Richard, go ahead, but then, after that, we've 37 got to get to this presentation, because we're coming up on 38 lunch, and so try and make it quick. 39

40 MR. DIAZ: I just want to quote that there is more shorts than 41 ever, and now especially that all of our catch is live. We all 42 have generators, pool pumps, air, and the lobster have never 43 been more alive in the past eighty years.

45 These fish that you claim that aren't released free, they get 46 shipped to China. They get on a plane flight and travel for 47 sixteen or seventeen hours and they're still alive, and so I 48 can't measure my lobster in the water. I've got to pull my trap

1 to get it out, but when he comes out, he goes straight in the 2 live well, because it's to my benefit to keep him alive. 3 4 When that little lobster wants to leave, he leaves. Those 5 lobsters do not get stuck. They've got tails, and they swim right out of the trap when they're ready to leave. When it's 6 time for us to let them go and it's not in our benefit, we let 7 8 them go, and we've seen more shorts than we've seen in the past 9 twenty years in the past three years now with these live wells. 10 11 CHAIRMAN PADRON: Go ahead, Josh. 12 13 I don't want to get into a he-said-she-said or MR. NICKLAUS: 14 recreational-versus-commercial. I believe what Mr. Burton said 15 over there. We're all in this together. We all stand to gain 16 or lose by managing the fishery, but what I would like to know 17 is -- This short mortality or attractant mortality kind of jumps 18 up in our face at every meeting we ever have. 19 20 Has there ever been any study or look into the recreational mortality of undersized lobster from people digging them out 21 22 under rocks and ripping their legs off and measuring them and 23 getting them caught up in their net? You know when you put them 24 in a net and you go to get them out of that net that they're not 25 coming out with all their legs. They're going back to the 26 bottom bleeding and missing antennas and whatever. I think we all have mortality in any harvest method that we harvest 27 28 lobster, and so that's my take on the situation. 29 30 CHAIRMAN PADRON: Anything else or can we let Mr. Matthews have 31 the floor again? 32 33 MR. MATTHEWS: We were looking at the slide of the recreational 34 fishing statistics. We made it to the number of permits. About 35 25 percent of these people only fish during the two-day sport season. The two-day sport season isn't really about managing 36 37 catch. It's about managing people and safety on the water. 38 39 What this data continues to show us over the years is that, using the two-day sport season, there is a fraction of the 40 41 people that only fish then. That actually keeps them off and 42 lowers the number of people that would be on the water during an 43 opening day. Simply, from a safety on the water perspective, 44 the two-day mini season does reduce -- It removes likely twenty-45 five people from the water on a single day. 46 47 Average catch, or average share of the total catch, the 48 recreational people, we think take about 23 percent of the

catch. In the most recent years, that was 1.6 million pounds. 1 You can see, in the last four or five years, the recreational 2 We think the biggest thing that drives the 3 catch is up. 4 recreational catch is the abundance of lobsters. Just like the 5 commercial people caught more the last four or five years, recreational people also caught more. 6 7 8 When the population was down, the recreational catch was also 9 down. In the 1990s, when the commercial harvest peaked, so did 10 the recreational harvest. Today, the recreational harvest is 11 approximately 40 percent of what it was at the peak in the 12 1990s. 13 14 Back in 1998 -- This is a little bit small, because we're 15 getting a lot of years of data in here, but the recreational 16 harvest in 1998 was only a fraction of what the total harvest 17 was, and that was likely due to those early season hurricanes. There was a threat of hurricanes, and so simply people didn't 18 19 Because of the threat of hurricanes, the show up. 20 recreational, the sport season, harvest was significantly down. 21 22 In the last few years, recreational harvest is up about 15 percent. That's about the same level that commercial harvest is 23 24 up, and so these numbers do go up and down pretty much in 25 proportion with what we think the actual population is. In 26 general, the recreational people have taken as much as 26 27 percent and as little as 21 percent. 28 29 Post-sport season, about 20 percent. Regular season, about 80 30 percent of the landings. We have done one study that suggested 31 post-Labor Day harvest is about 7 percent more, and so this is 32 mostly locals. There is generally very few people coming to the Keys to harvest, and so numbers that aren't reflected on this 33 34 graph are that 7 percent, and so there is a little more harvest 35 in the last seven months of the season, but we think it's only 36 about 7 percent, and absolutely we acknowledge illegal landings. 37 It's very difficult to study illegal activities. All of us who 38 live here know it occurs, but it is simply something we don't 39 feel comfortable with any method for us to generate those 40 numbers on any basis. 41 42 I apologize that this is a little bit small. Trap loss and 43 ghost fishing, just this year, we published a paper on that. In 44 the last few years, we have asked people, commercial fishermen, how many traps they lost, through a mail survey. 45 We actually had fairly consistent results. 46 47 48 These are the years. 1997, that was the year we had the

Groundhog Day storm. We estimate trap loss was about 180,000, 1 or about 30 percent. That's similar to years with hurricanes, 2 3 like Harvey and Gabrielle, and, of course, 2005 had the multiple 4 hurricane years, where we think we lost about 60 percent of the 5 gear. 6 7 In years without storms, 2001 and 2000, we still lost about 18 8 percent of the gear, and that's these numbers over here. 18 or 9 17 percent is about how much gear is lost annually by the Even though we did this with mail surveys, we went 10 fishery. back and dove in the water. We towed behind a boat for about 11 12 200 kilometers. 13 14 It turns out that most of this gear is on the ocean side of the 15 Florida Keys. This isn't routine loss due to fishing, but it's 16 boat cutoffs. The traps were intact. Simply the rope was there 17 and that was missing. 80 or 90 percent of this gear -- You can 18 see Upper Keys inshore, about half the gear, 55,000 traps, was, 19 again, in that near-shore environment. When I say Upper Keys 20 here, I actually mean all the way down to Long Key and not what most of us think of as the Upper Keys. It's quite a ways into 21 22 the Middle Keys, when we divided up the Keys by size. 23 Nobody wants to lose traps. They're cut off. They tend to be 24 25 cut off all year-round, and those traps are -- Generally, when 26 they're no longer pulled, they tend to be in pretty good 27 condition, and we think they fish about 1.2 or 1.3 years, and so 28 that trap, if left on the bottom, continues to fish pretty much 29 throughout the next summer. 30 31 More traps are lost during tropical cyclones. It's hard to study these. We suspect a lot of those actually are destroyed, 32 33 but it's really that routine loss that is what we're looking at 34 when we talk about 600,000 lobsters dying due to lost traps. 35 How a lobster dies in a trap, it is often due to predation, 36 37 something else, an octopus or a triggerfish, moving into that 38 We're doing some really interesting work right now that trap. 39 suggests that lobsters leave the traps pretty frequently within 40 about two weeks, but once that lobster has been in a trap longer 41 than that, it almost goes into a hibernation. It actually quits 42 trying to do much. 43 44 We're actually doing studies to understand how long that lobster has not fed, if that affects its quality as a bait, and so these 45 are numbers -- We're actually, I would say, into the second and 46 third level of studies. It's not that we haven't measured on 47 your boats how many of these there are, but it's now we're 48

starting to understand what's killing them, why those lobsters 1 are there. When is a fresh lobster more likely to get out than 2 3 an older lobster? That is the type of work we're working on 4 here. 5 This next level of work that we're doing will actually suggest 6 7 that -- Does the quality of the bait matter? Does one of those virus lobsters actually restrict your catch? That's the type of 8 9 work we're doing now, to understand how baiting might be more effective with lobsters that weren't in traps for as long. 10 11 12 These numbers of traps that were lost were done, were reported, 13 We confirmed their numbers by doing studies by fishermen. 14 underwater to actually count them, and now we're actually 15 refining what's causing the death of the lobsters in the traps. 16 CHAIRMAN PADRON: If you could, Mr. Matthews, but, Mr. Bruce, go 17 18 ahead and then Mr. Nichols. 19 20 MR. IRWIN: I have a few comments, and so hang on. One thing, 21 18 percent of lobster traps lost, you could take a survey of 22 these fishermen, and I lose about 5 to 6 percent, on a bad year. Another thing is I sat on the last lobster stock assessment, and 23 that number, 869,000 -- Basically, that's the mortality rate. 24 25 Is that correct, Tom? 26 27 MR. MATTHEWS: That's how many -- We rode on boats and we 28 counted that many out of 120,000 trap pulls that we monitored. 29 30 MR. IRWIN: I thought we came up in that stock assessment with a 31 number of about 496,000. That seems very high. That seems like 32 the number that was done pre-live well. 33 This was onboard boats from 1993 to 2001, were 34 MR. MATTHEWS: 35 these observations. 36 37 How come that number that we had back then, in that MR. IRWIN: stock assessment, was 496,000 and now it's 869,000? 38 39 40 MR. MATTHEWS: The number that goes into the stock assessment is 41 an F value. It's a ratio, and that number is 0.098. Roughly, 42 that means about 10 percent. As the number of lobsters goes up 43 and down -- For example, if there is half the lobsters out 44 there, that number would be half. 45 MR. IRWIN: Okay, because I thought that was the average number, 46 47 was 496,000. Also, it is true about what you say about the 48 bait, and I just want to let the people that aren't in the

industry know a practice that we all use. 1 2 3 We know fresh bait catches more lobster. We change our bait out 4 continually. We try to -- If a lobster seems a little weak, we 5 let it go, because it doesn't attract lobster as well, and so we're continually letting those lobsters go and putting new ones 6 in there, to try to keep them fresh, which I think probably 7 8 helps, and I think that's a practice that has gained more people 9 doing it over the years. These numbers are from twenty-three years ago, and so I think that also would probably have a less 10 11 impact of that number. 12 13 MR. NICHOLS: On what Tom was saying, I agree with Bruce. We 14 rotate our lobsters. It's very important, catching lobsters, 15 especially with the price of lobster. We care about our future. 16 We're like farmers of the sea. We know we have to protect our 17 spawning stock. We've got to protect our sub-legal lobsters. 18 19 I only use, myself, and the practice that most of us use, we try 20 to use the largest of the smaller lobster. We release a 21 dramatic amount of small little lobster. We do not want a 22 lobster that's -- We want to get a lobster close to legal size, 23 as close as possible, to use as an attractant, because that's 24 what they are, they're attractants. 25 26 The small ones do not attract anything but a lot of other little 27 guys, and so we release those, and we try to rotate out. The lobster start turning a little darker color and you can notice 28 29 it. It's very noticeable. It's not as energetic, and so we let 30 those go. 31 32 Another thing is the amount of -- During the season, we have 33 four or five periods of the season when the lobsters are very 34 highly migratory. There is a lot of -- I mean you're going to 35 have traps that are just jamming with lobster and, come 36 November, those lobsters will all exit, legal or shorts or 37 whatever. 38 39 I don't even care how long they're in there. There is times, periods of time, when the whole entire trap will just leave, and 40 41 so those things aren't -- I was just looking at the data. If 42 you just take the data source here, the timeframe, we're showing 43 a lot of this data from way back in the 2000s. 44 45 We have evolved quite considerably from then. We have reduced our traps through this trap reduction from a million all way 46 47 down to 425,000 to 450,000, somewhere in that range, which is a 48 dramatic amount of trap decrease.

2 We also, the fishermen that fish, we have a tag on a trap, and so we're only allowed what number of traps that we are allowed 3 4 to fish, and so we have to be accountable to finding those 5 traps. The technology, with the computer systems we have -- I have three different computer systems on both of my boats now. 6 7 8 I have every single trap, and almost every fisherman I know that 9 are the more professional guys -- Even the smaller guys can buy even cheaper equipment to plot their traps and their trap loss 10 has become quite considerably less. Tom knows, from fishing 11 with me. I fish the bottom, and so, on the Atlantic side, there 12 13 is an unbelievable amount of cutoff. 14 15 I try not to fish those areas as much any more. I don't want to 16 lose my traps, because I can't replace them. I can't just go 17 take another bunch of traps off the lot and put them back in the water, because I don't have a tag for them, and I can't get 18 19 replacement tags, because you have to quantify -- You've 20 actually got to qualify, or whatever it is, what number is on 21 that tag and that you lost, and if you have -- We have quite a 22 large fishery, and it's almost impossible to do, and so you 23 can't get a replacement tag. 24 25 We, as fishermen, are very, very attentive to not losing traps and trying to recover the traps we do lose, and I just think 26 27 these numbers are really -- A lot of these are very old numbers, 28 and I don't think that's what we're seeing in the fishery now. 29 I don't think it's 18 percent. 30 I would 100 percent have agreed with Tom five years ago, but 31 32 now, I am thinking my trap loss is under 10 percent for a 33 The trap loss itself is a lot of the traps are season. 34 disintegrating and falling apart, sometimes due to -- By the end 35 of the season, they will break off, because of the ropes fraying 36 out or whatever. Some of them are just too old and you will 37 discard them, even though I know you're supposed to bring them 38 back to shore and discard them. 39 There is a few things that you find traps on the bottom that 40 41 they actually aren't discarded because they were cut off. Also, 42 there's traps that are actually just thrown away or deteriorated 43 or whatever, but it accumulates, and so you can't really 44 quantify that trap just from diving, because you have some traps that deteriorate faster than others, just like Tom said. 45 Thev may last a year, but I do agree that the trap becomes totally 46 ineffective after time, if you don't work the trap. The trap 47 stays there and doesn't do anything. I don't know, but there's 48

1

1 a lot of things there that I'm not in agreement with, but 2 anyway.

4 AP MEMBER: Gary, could you just follow up for me and explain 5 that? Let's just say you're going to put out a hundred traps, and you've got GPS, and so you can kind of plot where you've put 6 7 them. Then, two days after that you go back out and let's say 8 you can only find ninety floats, and so you're missing ten traps 9 somewhere. Can you use GPS to say, okay, I've got trap three, four and five. I'm missing six and here is seven, and so I know 10 to look right here to find it? 11 12

13 We actually have -- On our computers, we actually MR. NICHOLS: 14 have a little trap that we drop a point. When we're pulling, we 15 space our traps out very equal in space and in a line. It mav 16 not be a straight line. It might be following the contour of 17 the bottom or whatever, but if I am missing a trap and the water is murky and the wind is blowing, I will put a little lobster 18 19 trap icon down. You can use one of thousands, and I will write 20 the number down in my book and we'll go back and I will tell my We copy our tracks onto the other boat, and we will 21 daughter. 22 go back and we will look for that trap. 23

24 I mean obviously if you're catching ten or fifteen pounds of 25 lobsters per season at ten to twenty-dollars on a lobster, you 26 can't afford to not have that trap, and so it's very -- Another thing we've gone to is, in the inshore fishery, a lot of the 27 guys -- Or the deepwater fishery, but I use trawls, and I fish 28 29 about half of my traps on trawls. I have increased that number 30 of traps, because on a trawl, you have an end buoy on each end 31 and the traps in the middle. If the trap gets cut off --32

The most efficient way of not losing traps is to fish everything on trawls, but the problem is, in the shallow water, the trap robbing becomes geometric, because the people that dive will get a tank and go down to your trawl and follow the whole line and no one knows they're even robbing the trap, because there's only a buoy on both ends. The best way to fish, to not lose traps, is with a trawl, and I've done that on almost all of my traps.

40

3

41 AP MEMBER: Good. Thank you.

42

44

43 CHAIRMAN PADRON: So back to the presentation.

45 MR. MATTHEWS: To break down the catch by all categories, 46 trapping accounts for about 60 percent, recreational is 15 47 percent, trap discards, and that's that ghost fishing and 48 attractant mortality, is about the same percentage. Commercial

1 dive is about 2 percent and commercial bully-net is just under 2 2 That's how the pie was divided up in 2015. percent. 3 4 A little more just basic data, but we've been able to age 5 lobsters. Unfortunately, it costs about a thousand dollars a lobster, and so it's not something we're going to be doing on a 6 regular basis. We have done this in the fishery, meaning on the 7 8 ocean side of the Keys. From Key Largo to Marathon is where we 9 caught those animals, or took them from commercial catch. 10 11 We have done this from the riding onboard a boat in the Dry Tortugas, and we have also aged animals in the Gulf. 12 There's 13 only a handful of animals there. Also in the Western Sambo 14 Ecological Reserve. That's an area that was closed in 1993. We 15 did this work in 2001. 16 17 Basically, in the fisheries, the average lobster, about 84 percent of them, are about one-and-a-half years old, and so 18 19 we're actually catching a fairly young lobster. Lobsters should 20 live to be twenty years. Age at maturity is about a year-and-ahalf, and so most of those lobsters in the Gulf that we catch, 21 22 or the bay, are actually immature, despite being legal size. 23 Most of those lobsters are harvested before age. 24 25 This graph is the estimated age and the number of clutches, and 26 so one, two, or three clutches. You can see there are no 27 lobsters with eggs under a year-and-a-half, but even some of 28 those one, two, or three-year-old lobsters produce one, but 29 older lobsters produce more clutches of eggs. 30 31 When an animal gets to be three or four years old, that's when 32 it is actually producing, more commonly, more eggs, but, very nicely, this shows that those lobsters, at about a year-and-a-33 34 half, is about reproductive maturity. We think a lobster 35 reaches size, legal size, that three-inch shell, at about that 36 size. When we start talking about legal animals, adult animals, 37 it's sort of unrelated to size. It's actually more related to 38 age. 39 Here is some of our fishing effort information, the number of 40 41 licenses. This is 1995. There were about 1,000 -- When I talk 42 about licenses, of course, there is SPL, saltwater product 43 licenses, C numbers, and that's a little bit hard to add up. 44 Most people have one C number, but they might have multiple businesses or an individual and a vessel, and so I actually 45 can't tell you how many businesses or people are out there 46 47 fishing for lobsters. 48

The best number we have, from the fishing license data, is the 1 2 number of Social Security numbers, SSNs. A person might 3 actually have three boats operating under one Social Security number, or, in this case, a federal ID number. If there is a 4 5 boat there, this would be captured by that. 6 7 There used to be nearly 1,000. Now we're down to about 400 trap The number of divers has declined. 8 fishermen. That's because 9 of the initiation of that CD, the divers license, and it's actually allowed to be transferred now, and so we expect that 10 number of divers to remain constant at about near 200. 11 12 13 The bully-net was relatively infrequently. About fifty people 14 were doing that. Now, that had a lot of turnover. It wasn't 15 the same fifty people. There would be almost one-third turnover 16 every year, and so the bully-netters came and went from the 17 business relatively frequently, and, in more recent years, that is up to about 300 people. 18 19 20 It dropped a little bit this year, and it peaked the year that 21 lobster price was the highest, and so it is difficult to get 22 into the lobster fishing business. There is a limit on dive 23 To get into the trap fishery, you would have to make licenses. 24 an investment to buy those traps, which is certainly difficult 25 to do, a large financial investment, and so that leaves bully-26 netting as the only open license. 27 28 Again, even though there is 300 people, about a hundred of those 29 people are coming and going every year, and so this is a 30 volatile group of people. It changes very frequently, and it 31 did drop a little bit this year, and so I'm not sure that we can 32 think that this is going to continue to increase or is this the 33 current number? Did it go up and down with price? That's one 34 possibility, but certainly there is the numbers. It peaked at 35 just over 300 and it a little bit less than that this year. 36 37 A big thing that, of course, has happened in the last few years is the price and value of the fishery. On this top graph --38 39 Again, we're starting in 1994 here and going to the current year, and that solid line, price peaked, on average at over ten-40 41 dollars a pound. Now, that's the average price. It certainly 42 doesn't reflect what most lobsters were sold at, but just the 43 average. 44 45 This year, the average price dropped to below eight-dollars a pound. The value in the fishery closely follows the price, and, 46 on this graph, we can see the value of the fishery for 2013 and 47 48 2014 was over \$50 million. This year, the value of the fishery

1 was about \$45 million. That's far in excess of the \$20 or \$30 2 million this fishery has been worth historically. 3 4 These numbers are not adjusted for inflation. They are just 5 flat values taken from the price per pound from the fishery, and so there is a lot more economic work that could be done with 6 this data, but certainly the value of the fishery has more than 7 doubled in the last four or five years, and I would say that's 8 9 the biggest driver for how things have changed in this fishery. 10 11 The graph of all those crazy dots on the bottom, each dot represents a single fishing trip and what the price was paid for 12 lobsters. There might have only been one pound of lobster sold, 13 14 and so you can't really look at the averages, but what we can 15 nicely look at is, in August, the value ranged from five to ten-16 dollars, and so the difference here was really the live versus 17 the whole green market, and, of course, the whole green is that whole lobster that's sold, how they have been historically sold 18 19 in the Florida Keys. 20 21 You start to see some separation of the price here in mid-22 September. That corresponds to the Chinese holidays, and so 23 price spikes for a very short period of time, and that's the 24 live market. 25 26 This whole top line is the difference between the live market 27 price and the whole green market price. There's not much of a 28 difference at the beginning, but certainly five to ten-dollars 29 is a huge difference, but this biggest price difference, up in 30 the fifteen-dollar range, versus anywhere from five to eight-31 dollars, represents the difference between the live and the 32 fresh green market. 33 34 We put this up because all of the value, or a huge portion of the value in this fishery, is derived by that live market. You 35 36 simply cannot discount that it's a whole lot better to sell a 37 lobster for fifteen-dollars than it is for eight lobsters. Ι 38 suspect that's what drove the bully-netters into the fishery. 39 They can effectively catch about twenty-five pounds of lobsters. 40 41 Five years ago, that would have been a hundred-dollar night, 42 certainly a nice night, but, by the time you pay for the boat and do the other things, you're not making a lot of money. 43 Now 44 that twenty-five pounds of lobsters is worth \$300 or \$400, certainly a good day's work for many of the people in the Keys. 45 46 47 It's that value of the lobsters that has likely driven the 48 creation or the expansion of the bully-net fishery, and it seems

1 to be certainly what has added some much value to the fishery. 2 If any economist looked at this graph, boy, would they look at 3 ways to improve the value of the fishery. 4 5 About the worst thing you can do is harvest 50 percent of your lobsters in the first fifty days. That's when the price is 6 lowest, and so the demand for these lobsters, and it is, of 7 course, an international product -- Spiny lobsters, Florida 8 9 lands about 6 percent of Caribbean spiny lobsters. Caribbean spiny lobsters are about 15 percent of worldwide market for 10 11 lobsters. 12 13 The number of lobsters we catch here in Florida does not affect 14 the worldwide price one bit. If we did not land a single 15 lobster on opening day, this price structure would still exist, 16 and so there is not really a supply and demand issue driving the 17 price when you talk about lobsters in the Florida Keys. The price is driven by fisheries in Australia and South Africa that 18 19 land the majority of the product that areas like China are 20 buying. 21 22 This was the biggest price difference we saw, and this is 23 2014/2015 data. We don't quite have all of the 2015/2016 data 24 in, the current year, but the price was, as we can see, down 25 from over ten-dollars a pound to just shy of eight-dollars, and so there was a two or three-dollar drop in the price. 26 27 28 This general trend still occurs, but it is not nearly as clear. 29 Unfortunately, things like the American lobster are making its 30 way into the Chinese market, and so it's very, of course, hard 31 to predict future price and value and economies and things like 32 that, but I am not sure the Chinese market will continue to be 33 as robust as it was in 2014. I am trying to put together a 34 lobster workshop in July of this year to bring in some of these 35 people who are knowledgeable about Chinese marketing and things. 36 37 The greatest way to increase value in this fishery is price, of 38 The number of lobsters comes and goes, but price is course. 39 driven by demand and factors in China and so, by far, price is 40 the biggest thing affecting the value in this fishery. 41 42 There is two things that might be going on, Back to the ACL. 43 and I do not know which is which. The lobster population has 44 always gone up and down. Is it just going up again and we're 45 harvesting the same percentage we've harvested for the last fifty years and everything really is the status quo, or, due to 46 that increased fishing effort -- Let me go back to a graph here. 47 I apologize that I didn't do this very well. 48

2 The blue line is the number of trips. The orange line is the number of landings. From 1997 through about 2007, the number of 3 4 lobsters caught closely matched the number of trips taken. In recent years, a little of this was before the price increase, 5 6 but there's been a separation. As the number of trips increased, which we would expect if there were more lobsters, 7 8 there has actually been a greater catch. 9 This suggests that there is more efficiency, that those same 10 number of trips are actually catching more lobsters. 11 Part of that is a slight increase in the number of traps. More of it is 12 13 probably just sheer efficiency. We have lost a lot of 14 Those fishermen who were fishing sold their gear to fishermen. 15 the current fishermen, and so this really just raises the 16 question. 17 18 The trips is no longer as aligned with catch as it used to be, 19 and this is one of those red flags. I can't tell for sure 20 what's going on, but there seems to be more catch associated 21 with the trips now than there used to be. 22 23 CHAIRMAN PADRON: Go ahead, Mr. Bruce. 24 25 MR. IRWIN: Could that be that there's more lobster, that we 26 catch more per day? I mean that seems like a reasonable --27 28 MR. MATTHEWS: Absolutely. The slide I came back from is that 29 things might be exactly as they've always been. There simply 30 might be more lobsters. 31 32 MR. IRWIN: So you're saying that it's a red flag, but it might 33 be a good red flag? 34 35 MATTHEWS: The red flag is that there used to be a MR. 36 relationship. The amount of trips was correlated with the 37 number of catch, but, now, the number of trips is not There is more catch. Part of that is because --38 correlated. 39 One possibility is that the guys left are better fishermen, so that even though there is the same number of traps in the 40 41 fishery, you are using those traps more effectively and maybe 42 using more traps per trip, and that suggests that there is more 43 fishing effort. 44 45 MR. IRWIN: I would agree somewhat with that, but I don't think 46 we use more traps per trip. As a matter of a fact, I know we don't. I see that as a good sign, myself.

47 48

1

1 MR. MATTHEWS: Yes, and I would say that it's not that you're 2 using more traps, but that those 500 guys who are gone were 3 small fishermen, and so their trip might have been 100 or 200 4 traps, and so, on average, there is more traps per trip.

5

27

6 MS. STAFFORD: I'm a small fisherman, and I work exactly the have demonstrated an increase 7 same number, and I in mv 8 efficiency, because I'm doing better, but I also wanted to ask 9 you about using that data for the short mortality. It concerns me that we would be even talking about data, estimated data, 10 11 from fifteen years ago and before. 12

- 13 If we're saying the fishermen have become more efficient, and we 14 know that using better, more lively, healthier shorts as 15 attractants is what we want to do, it doesn't correlate, to me, 16 that we would continue an inefficient practice, and so I would 17 like to see a representation of data that would be more accurate 18 for current fishermen that are hopefully better fishermen. 19
- 20 MR. MATTHEWS: About half the people in this room were the 21 people who provided that data during what we call the fishery 22 observer, and so that data was provided by basically the top hundred. Absolutely that data collection ended in 2001. 23 That 24 was about the same number of traps. It is the same traps, and 25 so yes, it is a little bit old data, but there's not really many 26 dynamics that have changed in the fishery.

Live wells were fully implemented, and I think those were a huge benefit to the fishery. I don't think there is much mortality from transporting and holding lobsters anymore, and there certainly isn't starvation of a lobster in a trap. It's not like it's sitting there fading away.

What more likely happens is it's unable to escape predation. Things like a triggerfish, an octopus, a stone crab enter the trap, and the lobster simply can't get out when it wants to. It's not that it can't get out of the trap over the course of multiple days, but it can't get out that instant.

- 40 MS. STAFFORD: I would just follow that up also with -- When we 41 lose a trap, we lose not only the trap and the cost of the trap, 42 but we lose the catch for the year. I go diving for them. Ι 43 will do whatever it takes to get them back, because I don't have 44 that many and every one of them is precious, and I know most of these guys will look. They will mark them and they will go back 45 and they will find them. 46 47
- 48 I think, again, because we're efficient, we don't want to lose

1 our catch for the rest of the year, and so we're pretty good at 2 trying to get our gear back, which should also be reflected in 3 this data.

5 MR. MATTHEWS: Our data, when we were underwater counting traps, was during the summer, and so it was long after that, but 6 absolutely. The loss of a trap is the loss of your investment, 7 the loss of future catch, and the third loss that recent study 8 9 identified was that that trap is actually still catching. That's normally lobsters you would have harvested. 10 About the same number still end up dying in that trap. 11

12

21

23

31

39

4

13 Absolutely you do not want to lose traps, and the fishermen, the 14 trap fishermen, are taking the brunt of that loss financially, 15 and so I would simply point out that, boy, is that low-hanging 16 fruit to help resolve that issue, and that would be in 17 everyone's best interest to -- Ghost traps have always occurred. 18 Now we have identified how many lobsters are lost from them, 19 boy, is that the great place to put half-a-million pounds of 20 landings into the win column instead of the loss column.

22 CHAIRMAN PADRON: Mr. Tony and then George and then Josh.

MR. IAROCCI: Thank you, Mr. Vice Chair. Tom, whether it be a ghost trap, an old casita, a coral head, a bridge piling, you're going to have short mortality or lobster mortality, whether it be from a triggerfish, a nurse shark, an octopus, or whatever. We have to take into account, when we look at this mortality, that it's not just about the trap mortality or short mortality coming from traps.

There is a big picture there, and I can remember back when that I did some diving, and I did dive some casitas, and I know some of the casita guys would go out and maintain. What they called maintaining a casita was to bang-stick a jewfish or a nurse shark, because when they would get to those casitas, there would be carapaces busted up, just pieces of lobster, where they had been eaten out.

40 There are other variables. I'm not saying we don't, granted. 41 Some days I will pull a trap and there will be a triggerfish in 42 there and they will all be dead, but that triggerfish swims out 43 of that trap just like a lobster does and goes back to its 44 natural habitat, where they do the same thing. 45

46 If a triggerfish sees a lobster in the hole and he wants to eat 47 it, he's going to get in the hole. If he sees it in a trap, 48 he's going to eat it in the trap, and so there's lots of

variables to that mortality. 1 2 3 MR. MATTHEWS: There is just a couple more slides, including the 4 landings data. Evaluating the ACL --5 CHAIRMAN PADRON: 6 One second, Mr. Tom. I had George and Josh 7 that had quick comments. I know we are all trying to get to 8 lunch. 9 10 MR. NILES: Real quick, I was one of the people that Tom got his information on before 2001, but I would just like to tell you 11 real quick how my boat has changed. I now have a pool pump. My 12 13 live well is completely different than it was pre-live lobster. 14 The change is huge. I have four different air pumps on my boat, 15 in case one goes down. 16 17 We went from carrying around fifty shorts to now carrying around 18 thousands of pounds, and our live wells are completely different, and none of that is taken into account, because the 19 20 data you have is twenty years old. Real quick, since we're 21 going to lunch, that's longer than our Chairman has been 22 fishing. Keep that in mind. We need some new data. 23 MR. NICKLAUS: Tom, not to pick on you, but you mentioned there 24 25 that you collected data from a hundred fishermen, roughly, and 26 the same top hundred fishermen were still fishing? That's 27 completely wrong, in my opinion. There are numerous examples in 28 this room of a change of the guard. The Chairman and me went to 29 high school together. 30 31 On your Eastern Sambo Ecological Reserve Study, I was a freshman in high school on the deck of the boat pulling the traps and 32 tagging them. I've been tagging lobster with that man back 33 34 there since I was about nine years old on the boat. 35 36 **AP MEMBER:** I've got the pictures. 37 38 And he's got the pictures. Let's get into our MR. NICKLAUS: 39 examples. Mr. Stafford down there, his son now runs his boat. Mr. Irwin, his son now runs his boat. When all this was done, I 40 41 was in -- Kelly is fishing now. She was not -- She was in 42 school with us back then. I would say that we definitely need 43 some new data, because there has definitely been a changing of 44 the quard, and we've gotten much more efficient in what we're 45 doing. 46 47 I want to second what George said about the live wells. In the 48 1990s, when we implemented live wells, we had -- Guys were

running around with a live well on the deck with not even water 1 running in it, just to say they had a tank that they could have 2 3 their shorts in. Nowadays, we have air, and we've trained the 4 crews to take better care of the lobster, because the lobster 5 that we're selling need to be in top condition, and so they take the same care with the shorts as they do of our catch. I am in 6 7 agreement with the fact that we need some new research. We 8 shouldn't be basing things in 2016 on stuff that was done in the 9 1990s. 10 11 MR. MATTHEWS: Just wrapping up, where we are with the ACL, the 12 current ACL is based on past landings and is not responsive to -13 - We sort of covered this. If the population goes up, you can 14 catch more. Right now, the ACL doesn't allow you to do that. 15 16 If good things happened, live wells were utilized better, as you 17 all have just talked about, you get benefits, again, and the ACL 18 doesn't allow that. If the population declines, the ACL isn't triggered at all. We're all in agreement that it's the wrong 19 20 methodology, but all of this would be true with any set ACL. Ιt 21 doesn't matter if we use ten years or twenty years. It's all a 22 static number. 23 24 Sooner or later, something is going to change and the ACL isn't, 25 and so we sort of need to think about more other measures, 26 things like effort, other things that actually trigger the ACL, 27 as opposed to just what a set level is. It seems to be 28 something we're stuck with. 29 30 More power to anyone who can get it not to be. We have barked 31 up that tree several times. It doesn't seem to be going away, and so I'm just suggesting, instead of worrying about what the 32 33 level is, if we actually look more at what the trigger is to try 34 to address it. 35 36 Here is the data. On April 15, we were able to have a download 37 of data. To round this up, that very bottom number there, 7.29, 38 the ACL is 7.32. We are 30,000 pounds shy of breaking the ACL, 39 which would be the second time in four years, meaning action has 40 to take place, and I will let the councils more discuss what 41 that would be. 42 43 We are so close to the edge that I am not able to say if there 44 is outstanding landings that simply haven't made it into the system yet, because, again, half of those landings are manual 45 and aren't necessarily in the system yet. We are very, very 46 close. It will probably be June 15 before I'm comfortable 47 saying if we broke the ACL or not, and so that's where we are 48

with the actual landings. We are 30,000 to 40,000 pounds shy of 1 2 breaking the ACL, which would be the second time in the last 3 four years. I guess that's the main number we want to get at, 4 and I will leave it open if anyone else wants to ask things. 5 6 CHAIRMAN PADRON: If there are no further questions, I quess we 7 will go ahead and break for lunch. I guess we will return at 8 roughly 1:30. 9 10 (Whereupon, the meeting recessed for lunch on April 25, 2016.) 11 12 13 14 April 25, 2016 15 16 MONDAY AFTERNOON SESSION 17 18 _ _ _ 19 20 The Spiny Lobster Advisory Panels of the Gulf of Mexico Fishery 21 Management Council and the South Atlantic Fishery Management 22 Council reconvened at the Gulf Council Office, Tampa, Florida, Monday afternoon, April 25, 2016, and was called to order at 23 24 1:30 p.m. by Daniel Padron. 25 26 All right, everybody. CHAIRMAN PADRON: Before we went to 27 lunch, we talked about a lot of things, as far as the short 28 mortalities, recreational diving, external recruitment. Is 29 there any further discussion on that, while we're all here, back 30 in the saddle? If anybody has anything else to say -- If not, 31 maybe we can start making some motions and try to get through some of this stuff. 32 33 34 **AP MEMBER:** Where do you want us to start? 35 36 CHAIRMAN PADRON: Just if you have any other comments or 37 questions for Mr. Tom or anybody else here. Go ahead, Kari. 38 39 DR. MACLAUCHLIN: Just before you guys start discussing and if you want to make motions, the way that it will work is that if 40 41 you make a motion, you make it on behalf of your AP. Then that 42 AP votes on your motion, and then the other AP can make the same 43 motion and vote, or, if the other AP doesn't agree, then you can 44 make a different motion. We will hopefully have all the same motions coming out of the APs, but, if that doesn't happen, it's 45 46 okay, but we're going to do two separate. 47 48 MR. BURTON: One of the several motions proposed at the recent

webinar -- The first one, the motion to calculate the ACL based 1 2 on landings from 1991 through the most recent landings, is an 3 acceptable short-term fix, in our opinion. Anybody that works 4 with the higher-ups have any feel as to whether that might be 5 accepted or rejected? 6 7 CHAIRMAN PADRON: Go ahead, Bruce, followed by Jessica. 8 9 MR. IRWIN: I don't think there's way for us to tell if they're going to accept what we do. I think our job is basically to put 10 forward motions that we think are acceptable to us. 11 That's why 12 we sit here, and then see what they say about it. Sometimes 13 they accept them and sometimes they don't. When everybody gets 14 done, I do have a motion to put forward. 15 16 CHAIRMAN PADRON: Jessica, go ahead. 17 18 MS. MCCAWLEY: As a council member, I think it's acceptable way to solve this problem, at least temporarily. 19 20 21 To Bruce's point, make whatever motions you want MS. BADEMAN: 22 I think one of the important things is, for when this to do. gets translated to the council, that everybody is explaining why 23 24 you're putting forth these various motions, so the councils can 25 understand. If they don't understand, then it's going to be 26 hard for them to say, yes, let's do that, but, if they 27 understand where you're coming from and the rationale, it makes 28 it a lot easier for people to get what you're wanting to do and 29 then potentially move forward with it, and so just think about 30 that during the discussions, when you all are talking about 31 motions. 32 33 MR. BURTON: Again, I think this is a short-term solution that 34 would solve a lot of our immediate problems. I make a motion 35 that we send this to the voting council. 36 37 I would second it, but with some questions and maybe MR. IRWIN: an amendment a little bit later, when we have discussion. 38 One 39 of my questions is the review panel said, from 1991 on, using the landings, that it would be a nine-point-six something ACL. 40 41 Is that correct? 42 43 DR. KILGOUR: It's just under 9.6 million pounds, yes. 44 45 MR. IRWIN: Okay. I will second that motion. 46 47 DR. KILGOUR: So this is to recommend that the council accept 48 the AP's recommendation for the time series for the ACL? Is

1 that what -- Is that correct?

2

7

9

21

34

3 MR. BURTON: Correct. It gives us a little higher top limit. 4 It's certainly not cheating in any fashion. There is no 5 particular reason why we have it set at this shorter term. I 6 don't see any downside to it.

8 CHAIRMAN PADRON: Mr. Bill and then Mr. Peter.

10 MR. MANSFIELD: While I don't disagree with that, I would like to entertain the other motion that was put forward, and I talked 11 12 to Tom earlier about some potential modifications that he might 13 suggest for the rolling average. Again, that rolling average 14 won't really hurt anything, long term. It will set up a 15 dampening effect on the bad years, and it won't let the good 16 years really reflect too much, if we pick the right term to do 17 Tom, what were your comments about that? that. I am not putting that up as a motion, but I'm just saying that was the 18 19 other motion that we made last time, and I want to make sure 20 that we do discuss that.

22 MR. MATTHEWS: Starting with using the 1991, that sets the ACL 23 very high. It essentially removes it as a management tool, 24 which is certainly one thing to do. ACLs in this fishery aren't 25 a great tool, and so to effectively eliminate it as a management 26 tool is an option, and also that would say using all of the 27 data. Generally, that's always a good thing to do. 28

We know something happened in 2000 that caused landings to drop, which makes the argument go in the opposite direction. Should we be using the most recent years? That's where -- There's a lack of leadership here, because there is not necessarily a right answer to that.

Now, we can't do exactly the rolling average, because we had advice from science staff that they would like something that was in place for at least five years, and so you can set an ACL based on more recent data, which would likely reflect what's going on in the fishery now.

41 The things you can change are the triggers, and so, right now, 42 we have two out of fours if we break it that we have to take 43 That's a great thing, because we don't want to be action. 44 responding to one year that might have a hurricane or something else that caused something unusual. 45 When you have multiple 46 years that you would have to break the ACL, that's a good 47 protection.

When we break the ACT right now, the rule says you basically 1 2 have to talk about it. That's always a great thing in this There is a lot of things that can happen that you 3 fishery. 4 don't want to have to guess ahead multiple years in advance to 5 understand every scenario, and so I think the triggers, or the actions, for breaking the ACT are great. We just talk about it. 6 7 8 Now we are likely going to break the ACL for a second year in 9 four. To have different accountability measures or triggers is 10 also a very viable option, and so the rolling average or utilizing more recent landings years, which is, I think, what 11 the rolling average proposal turned into, yes, we can set a 12 reasonable number, but then say maybe you have to break it in 13 14 more years or in a year that has to do with recent high 15 averages, so we could make it based on the last five years even, 16 which we know were all good years. 17 18 There is a lot of flexibility there, but it comes down to more of a philosophical approach. Do we just want the ACL out of the 19 20 way or do we want to utilize it as a management tool? Did that 21 answer? 22 23 Yes, clear as mud. I got it. MR. MANSFIELD: There is no 24 answer, and we've got that. 25 26 CHAIRMAN PADRON: One second, Mr. Bruce. You're right after Mr. 27 Peter. 28 29 Thank you, Mr. Vice Chairman. I spoke earlier MR. O'BRYAN: about my concerns of having too long of a period, because it 30 31 won't take into account if we have a couple of bad years. Ιt will be too slow to respond, but the fact that we can't have a 32 33 rolling ACL -- I do think the motion will give us a couple of 34 years where we would then have staff or someone come back with a 35 better mousetrap, so to speak. 36 37 The only thing is can we just make it a caveat to this that if we do see a couple of bad years over the next coupled of years 38 39 that we can either reconvene or readdress this, so that we don't 40 let this thing go sliding too far before we react? 41 We've got a trigger to address if we go too high, but we don't 42 43 have a trigger to say, okay, now we've hit two bad years and 44 should we come back and revisit this and take another look, and so that would be the only thing that I would add to it. 45 For those couple of years, do we come up with a better methodology? 46 47 48 MR. IRWIN: I would like to come up with a number. Instead of

going with the years, just let's do the 9.6, or just under 9.6 1 million pounds and put that motion forward. 2 I would also like 3 to add a type of amendment that says one of the triggers --4 Rather than maybe landings, maybe use the size and age, because 5 90 percent of stock assessments are done by size and age of the 6 species. 7 That gives you a more accurate determination of the health of 8 9 the stock than landings, because there are so many variables in landings, and so I would like to see that as a trigger. We set 10 it at 9.6 million pounds and then we come back and say if size 11 and age in two consecutive years go down that we form a review 12 13 panel again and review and look at what's happening and why 14 that's happening. 15 16 CHAIRMAN PADRON: Mr. Doug, go ahead. 17 18

18 MR. GREGORY: I'm not sure -- Is the state measuring size and 19 age? If not, I would say have this panel recommend that the 20 state develop a mechanism for monitoring the health of the 21 fishery or something like that, but I don't know exactly what 22 that would be or what they do now or could do, but it seems like 23 a reasonable request.

24

31

25 MR. MATTHEWS: No, and that's, I think, exactly how things 26 should be done. We do not have, in the most recent years, 27 because of the advent of the live market, we have actually had 28 some rejections of measuring that, and so our sampling of that, 29 which we've been doing for twenty years, has dropped off 30 recently.

It's not that it's -- We still have 2,000 or 3,000 measurements, 32 33 but it's not the average that's important. It's how many bigger 34 lobsters there are. That seems to be the number that is responsive, and so I would say that's a great proposal, and, 35 36 fortunately, in the last couple of years, the critical years, we 37 were not able to collect that data, but we did redouble our efforts this year to collect that better data in a better way. 38 39

40 **AP MEMBER:** Will that information be readily available when they 41 fill out their tickets, because don't they -- Do they say the 42 number of lobster and the total weight or not? 43

44 MR. MATTHEWS: No, and so the trip ticket has gear, fishing 45 area, a little more effort data, like soak and number of traps, 46 but no size data. We actually go to fish houses. We call it 47 the Trip Intercept Program, and we do this for recreational 48 fishermen, also. We show up on the docks, and it's a wonderful

random design, and you simply measure the first lobsters you 1 2 see, and we try to do that throughout the Keys in different 3 areas. 4 5 AP MEMBER: Bruce, do you guys, or any of the commercial guys, do you count the lobster you catch, or is it just all done on 6 7 weight? 8 9 MR. NICHOLS: I count the lobsters I catch. Every day, my daughter and I, we take each line and pull, we get the count of 10 how many lobster we catch. The other day, obviously the -- The 11 pounds kind of reflect the numbers, if you wanted to divide it, 12 13 but it's not required on the trip ticket. 14 15 There is a big loss -- We participated, with my fish house in 16 particular -- One of the young ladies came to my place and 17 measured lobsters at least once a week for a long, long time. I 18 don't know if we've been running low on funding or whatever, but 19 she hasn't been there as much the last couple of years, or the 20 last two years, I think it is, and I don't know why that is. 21 22 Having said that, the trip ticket information, because of -- For 23 whatever reason, a lot of the times you don't get super 24 accurate. Most of the fish houses will just put a generic 25 number. If I tell somebody, for instance, 600 traps, you will 26 write that on every single trip ticket, that you pull 600 traps 27 a day, and you will say how many days soaked. They don't 28 normally ask that. It's just a generic ten days, if you look at 29 it, and it's very -- It's not near as effective as if -- If you 30 wanted to go to the individual fishers and maybe fine-tune that 31 a little bit, it might be a good idea, because it's a little bit 32 of a mess. 33 34 The paperwork and putting it on the computer -- Once you have 35 the computer program, it's not like when we used to write the 36 ticket, because when I used to have the fish house twenty years 37 ago, when we first started doing the trip tickets, we were very 38 good about writing a paper ticket with each number, because we 39 would ask the guys the questions. 40 41 Now, it's more generic and punch the button and keep it at ten 42 and roll it over to every day. That guy pulled 600 today and he's in thirty foot. We will put thirty foot. 43 It doesn't 44 really give you a true indication like it used to with the That's from the fish house standpoint and in 45 computer system. the fishery. That's where we're at on that. 46 47 48 CHAIRMAN PADRON: Mr. Bruce.

2 Tom, I see your staff at our fish house -- I would MR. IRWIN: 3 say not regularly, but often. Is it because of funding? Is it 4 because of lack of staff? It seems like, to me, that that's 5 something that we should be keeping even more than a trip ticket, because that's -- It's a more exact point that you can't 6 The fishermen can't lie and put I was in this area 7 fudae. because they don't want their fishermen looking at their tickets 8 9 and seeing where they were, but I think that that is a better way to keep track of the species than having fishermen tell you 10 how many lobster they caught. 11 12

13 MR. MATTHEWS: Absolutely. The size structure data, we're 14 working on stuff right now to actually understand age, based on 15 much like they do fish, and so yes, size structure and age is 16 the core thing you want to know. 17

18 I will never badmouth the trip ticket data. It's an incredible 19 database that we -- Florida had it long before a lot of other 20 states, but to understand individuals about lobster and the 21 population, that age and size structure is the critical data. 22

23 MR. IRWIN: I wasn't bashing the trip ticket, but I'm saying 24 it's less accurate than when you actually measure and age the 25 animal.

27 MR. MATTHEWS: Yes, and I would just say it's different.

28

26

1

29 MR. IRWIN: Right, and so I don't see if we can -- We should 30 make that recommendation from this panel, I believe, that we 31 have a better way of -- More effort put in towards gauging size 32 and age, and I think we should attach it to this motion. I 33 think a friendly amendment to your motion would be a 9.6-34 million-pound ACL, which basically, like Tom says, takes the ACL 35 out of the management realm. Then we can go to an exact way to 36 measure the species. Let's put a motion together that says that 37 we would like to see the state or the federal people put more 38 effort into size and age.

39

40 MR. IAROCCI: To that point, Bruce, but, before I do that, Tom, 41 maybe I didn't hear it, but Bruce had asked why -- I do see, 42 because I get in earlier at Keys Fisheries, and I always see 43 your staff there measuring the lobsters. What has been the 44 reason why -- Has there been no staff or no funding to do that? 45 I think it would be good to make that as a separate motion. 46

47 I think if we get too big of a motion with too many issues that 48 it's going to confuse the -- Simplify it. The ACL, 9.6, and 1 then we go down and we give them direction simply, one, one, 2 one, one. That's what I would do, but, Tom, I'm curious about 3 why, because I think, one way or another, we need to do that in 4 a better way.

Yes, and I didn't realize -- We have the same 6 MR. MATTHEWS: 7 staff. They're still going out and doing that. I had heard 8 that they were getting rejections from certain places. People 9 are saying different things in here, but the state still has the same staff going out and doing that. I know the feds recently 10 cut one very active lobster measurer from their Key West 11 12 program.

To sort of support the thoughts on the proposal you're tossing around right now, and I think staff would have to help with this, but my understanding is that lobster is not a priority species, and so when the federal port samplers are graded on how good of a job they're doing, they're graded by the number of fish, but not the number of lobsters, and so my understanding is that lobster is not a priority species for them to measure.

What that does is, if they walk into a fish house and there's a pile of fish and a pile of lobsters, they do the fish first. If the lobsters get processed while they're measuring fish, they've just missed that sample, and so I think there might be some validity to put lobsters on at least an equal setting for the finfish measuring.

28

21

5

13

29 CHAIRMAN PADRON: Go ahead.

30

31 **MS. YUYING ZHANG:** Hi, everybody. My name is Yuying Zhang. I**′**m an Assistant Professor at the Florida International University. 32 33 Just in response to some of your comments about the age and size 34 keys, actually -- Of course, that's important if you use age-35 structured models to estimate the status of the lobster fishery, 36 but I would just let you know that I am just funded by the 37 Florida Sea Grant to develop a size-structured model. If that 38 model is developed, that will not be a big issue for the size 39 keys. It's my fault that I didn't advocate my job a lot, but if any of you, like the fisheries association, is interested in my 40 41 work, I would be very happy to make a presentation for you. 42 Thank you.

43

44 MR. NICHOLS: Just to move this along, and I think Tony is right 45 that we ought to break it up into separation motions, but, 46 Bruce, to your point, I think Bob's motion gets us the number we 47 want, but it also gives us the justification. Instead of us 48 just picking a number, now we have at least a reason, and so I

think the motion is good to get us to the number we want. Then, 1 2 like Tony said, we'll make a second motion to direct staff to do 3 the age/weight thing or whatever else goes on, but I think the 4 motion stands good for what we want to get to. 5 6 CHAIRMAN PADRON: Any other questions or comments on that 7 particular motion? With that being said, that's the South 8 Atlantic. Now the Gulf needs to decide on the -- You guys need 9 to vote on that? Okay. Let's call the vote. All in favor; all opposed. None opposed. Does anybody else want to make the same 10 motion from the Gulf side? 11 12 13 MR. NILES: I will make the same motion as the Atlantic. 14 15 CHAIRMAN PADRON: Can I get a second? 16 17 AP MEMBER: I will second that, with one thing. Like Bruce said, that is going to put us at 9.58 million or something like 18 19 that. 20 21 DR. KILGOUR: Just for clarification, as of right now, it's 9.59 22 something, but the motion on the board is to go to the 2015/2016 landings, which we don't have in that model, and so I don't have 23 the exact number, because we don't have those final landings 24 25 yet, and so it will be around 9.6 million pounds, but it's the 26 inclusion of an additional year where I don't have the data yet. 27 When it's finalized, we will include it in there, but it won't 28 change that dramatically. 29 30 CHAIRMAN PADRON: Can we just put an approximate 9.6 million 31 pounds in there, in the motion? 32 33 AP MEMBER: It's not going to be -- It's a range of years, not 34 pounds. I will second that. 35 36 CHAIRMAN PADRON: Let's call it a vote. All in favor; any 37 opposed. It's unanimous. 38 39 MR. GREGORY: The reason you want to go with the full range of years -- Are there any ideas other than the fact that it gives 40 41 you a high number? When the scientific committee chose those 42 low years, lobster was treated as a data-poor species, because 43 of the difficulty of doing the stock assessment and, in 2010, 44 the stock assessment was rejected by the scientific panel. 45 46 In that, for all these data-poor species, which includes things 47 like black snapper and silk snapper and rock hind and that sort 48 of thing, they were looking for a period of ten years that had

1 relatively stable landings, because most of these species were 2 bycatch species. 3 4 If there was no trend in the landings going up or down, then the 5 assumption by the scientists was that this is stable and this might be appropriate. When they got to lobster, and this is in 6 2010, they looked at the last ten years and it was those last 7 8 ten years of low, stable landings. That's why they chose that 9 for developing the ACL. 10 11 Now, if you go to the longer time series, you're going to get more variability in the landings. You've got landings from a 12 13 previous time period, and so some discussion of that would be 14 helpful. 15 16 CHAIRMAN PADRON: Mr. Peter, go ahead, and, Mr. Bruce, you're 17 following him. 18 19 MR. O'BRYAN: Thank you, Mr. Vice Chairman. I think a couple of 20 One, if I look from 2005/2006 and go out to the things. 21 2014/2015, the graph we have data for, there's pretty strong 22 trend lines going up, and so it does look like there is a 23 recovery in the industry and we're still I think Tom said 15 or 24 20 percent below the 1990s data. 25 If I look at that trend increasing since 2005/2006, I think it's 26 27 reasonable to assume that trend is going to continue. Secondly, 28 we've heard from the industry that, one, there should be less 29 ghost traps out there and less mortality, because -- How it was 30 explained to me is that they have a certificate on the trap. Ιf they lose that trap, they just can't slap a new number on a new 31 trap. They have to find a way to retrieve that trap, and so 32 there is incentive from the industry to go out and find those 33 34 ghost traps, and so I think there's going to be less mortality 35 because of the ghost traps. 36 37 Thirdly, we also heard from the industry that they have greatly increased their aeration and pump capacity, and so there should 38 39 be a mortality reduction in the shorts and the other legal-sized lobster that they're holding. Given the trend and changes in 40 41 the industry -- I would like to say, personally, I hope that --42 Kind of what I've heard here today is that there's a generation 43 of commercial guys out there that are passing this down to their 44 kids. 45 A lot of the guys sitting in this room are passionate about the 46 industry and trying to do the right thing, and I have every 47 confidence that their children will continue to run the industry 48

with the dedication that the parents are showing. 1 2 3 Then, finally, I think we've all said this is kind of a short-4 term solution. For all that, that's why I've supported the 5 motion, and then I think it is a sustainable increase in 6 numbers. I think mortality is going down, and I think we've got 7 some dedicated folks running the industry, and so those would be 8 my justifications. 9 10 CHAIRMAN PADRON: Mr. Bruce. 11 MR. IRWIN: Doug, I think some of the rational for going to the 12 13 9.6 or using all those years is yes, it does give us a high To eliminate the ACL, which I think almost everybody 14 number. 15 has unanimously agreed is not a proper management tool in this 16 fishery -- We never thought it was when we did it. I remember 17 the meeting five years ago when we made up the ACLs. We were 18 just going, I can't believe we've got to do this and it doesn't 19 fit the fishery, because there are so many variables in the 20 lobster fishery. 21 22 As a matter of a fact, once you know all the variables, to me, it's amazing that we even catch any. They've just got to float 23 24 around for ten months in the Gulf Stream and then come through 25 the bridge and then land and then hurricanes wipe some of that 26 out and then poor water quality. It's just we need to take the 27 ACL off the board for managing this fishery. 28 29 We are mandated by law to have an ACL. It doesn't say how we 30 have to go about it, and so let's take it off the table with a 31 high ACL. Then we can put certain triggers in place for reviews 32 when we don't meet it, because, right now, really our only 33 triggers are if we do the annual catch target and limit, and so 34 we need to put different triggers in there to review and look at 35 the species. I would say that's the rationale for going with 36 the high number. 37 38 CHAIRMAN PADRON: Mr. Gary and then Ms. Mimi. 39 40 MR. NICHOLS: I agree totally with what Bruce said, and just 41 back before you even had the data source on here, back in the 42 1980s, when I started fishing with my wife -- It was like 1972 43 when we started lobster fishing. When we had to make a living 44 at it, it was about 1978, but we've had seasons back in those days that were -- It's the extremely cyclical nature of our 45 fisherv. 46 47 48 Using that data over that long period of time -- I have seen

back in the 1980s when you couldn't catch a lobster. My best 1 2 day in one of those years was 300 pounds, until the very end of the season, and March 11 one year, I caught 35,000 pounds of 3 4 lobsters, and I only had 800 traps. I caught all of them in the 5 bay in five-foot of water, and I caught them in two weeks. 6 7 It's just a matter of -- This is the most unpredictable fishery that I know of anywhere, and I've been doing it all my life. 8 9 The more you know, the less you know. That's the way I characterize the lobster fishery, but I have to say the last few 10 years with all the things that we have done as an industry --11 Back in those days, the neighbors -- My next-door neighbor in 12 13 Long Key, it was our first house back in like 1982, he had his 14 freezer full of shorts in five-pound boxes, selling them to all 15 the neighbors. He had his freezer full of stone crab claws out 16 of season. 17 18 Until the newer generation, which was me at that time, and now 19 I'm an old guy, and hopefully my daughters, the conservation 20 effort came along. I told him, hey, I'm going to call the 21 marine patrol if you bring in any more of that stuff and I hear 22 of anybody coming over and buying these, and we had to do a 23 little internal stuff, and so I really think we're on the right 24 thing. I think stretching this out over time -- I think an ACL 25 is a really bad deal for the lobster fishery, but we do need to 26 keep a monitor. 27 28 I am really proud of our DNR and our FWC and the research, 29 especially with Tom, because he's been doing this for a long, 30 long time, him and John. They've done a really good job. Ι 31 mean he gets pounded a lot for the bad that he does, but that data is invaluable, and he's been side by side with myself and a 32 33 lot of the other fishermen in this room on the boats, and we're just trying to provide food for our families, but, as farmers of 34 35 the sea, it's just like a farmer of the land. You don't want to 36 fish anything out, and if we have a virus or something that we 37 can't do -- I lobbied every state representative and senator in I walked those halls to get this limited-entry 38 the state. 39 system, and I really think that's a big part of the success of it, 40 fishery, professionalizing reducing our and 41 professionalizing it, and reducing the latent effort, or the 42 people -- Make it a lot more professional and more accountable,

I mean a certificate now is \$200, where it was \$5 to \$10 when they first came out, and so I think doing all of that and having the biologists behind us to keep a study up. This water quality thing is the biggest issue facing us right now.

and I think we have, obviously, a lot more at stake.

43

It's a very, very scary thing for my children and my children's children, what's going to happen with the water quality and what it's going to do that larvae. I'm more interested in that, but, anyway, I'm just throwing it out there with all the other things, but I really do appreciate Doug's comments and Tom's.

7 8

9

20

23

29

1

CHAIRMAN PADRON: Go ahead, Mr. Robert.

10 MR. GAITANIS: The question that I have is will the council accept this, knowing that what we're doing is moving the ACL out 11 of the picture? I just wonder whether we would be better off to 12 13 come down a little bit from, quote, unquote, the max, so that it 14 wouldn't appear that we were just simply trying to move it out 15 from being a management tool, and bring it to a more reasonable height. Maybe split the difference between what it was and what 16 17 the max could be, about eight-and-a-half million pounds or 18 eight-and-three-quarters, or some number that doesn't fly in the 19 face of taking this tool away.

21 CHAIRMAN PADRON: Mr. Doug, I will let you go and then I've got 22 Josh, Mr. Chester, and then Tony.

MR. GREGORY: Whatever recommendations that this group provides, we'll take those to our Scientific and Statistical Committees on the South Atlantic and the Gulf Councils for their review and comment, and so it's going to have that input as well, and then it will go to the council.

30 Unlike the ABC or the quota setting, I don't know if the SSC has 31 the final say on what this is or if it's the council that does 32 it, but -- I'm not sure about that, but it may be the SSC, and 33 they may be uncomfortable with this and suggest something 34 different, but if you have other alternatives or other things, 35 like the motion to monitor the fishery, we'll take all those 36 forward as well.

- 38 CHAIRMAN PADRON: Go ahead, Josh.
- 39

37

40 I just wanted to throw it out there, to your MR. NICKLAUS: 41 point about removing the ACL completely from a management 42 standpoint, that we're already in a limited-access fishery, 43 where we have a trap tag program in place, and so removing the 44 ACL or placing it high enough, to where we don't think we will reach it, is not like taking all the rules away, because we 45 still have a set amount of gear that we can fish. 46 47

48 What I really wanted to say was I think we have this whole

system maybe backwards, because we're sitting here discussing 1 how to control if we catch too much. 2 If we catch too much, 3 wouldn't that be a success story? The stocks are healthy, and 4 we have a set amount of gear that we can fish. The effort is 5 limited to a certain number, and so if we catch more, that's a success story. That means the stock is healthy. 6 7 Shouldn't we be more focused on the lower number and convening a 8 9 board to discuss if the numbers get too low and that we're in trouble and we need to try to figure it out? 10 11 12 CHAIRMAN PADRON: Mr. Chester and then Ms. Mimi. 13 14 Obviously I cannot speak for the council. MR. BREWER: It's 15 just me, but I don't have any problem whatsoever with you 16 setting a high ACL. What I would be much more concerned about, 17 and it's been talked about, but you haven't really gotten into any specifics yet, is what kind of -- How do you set some sort 18 of indices of abundance, so that you can, on a yearly or 19 20 biyearly timeframe, take a look at the state of what's going on 21 in the fishery? 22 23 If you're seeing that you're having significant declines, then 24 you need to figure out some way of having an accountability 25 measure that forces you to do something about it. If things are 26 rocking along fine with the way things are set up, by that 27 limited entry or all the other different measures that are 28 talked about, you don't need to do anything, but if, and I think 29 everybody agrees with this, but if you're doing something -- If 30 too many lobster are being taken out or if there's been a new 31 virus that's introduced and all of a sudden the fishery is in 32 trouble, that's when you need to do something. Maybe you all 33 could focus on getting recommendations to the council as to how 34 you think that could be done effectively. 35 36 CHAIRMAN PADRON: Ms. Mimi and then Mr. Tony. 37

38 MS. STAFFORD: I think that was the gist of my suggestion, was I 39 think getting a better understanding of the class size that's out there, so we know what the dynamics of the population are, I 40 41 think that's important, and I also think that what you had 42 suggested, I think, Peter, about if there's a low couple of 43 years, that that ought to trigger a review, to see if there's 44 some factors that are different from a hurricane or something else that's unknown, if there's some red flag that goes up. 45 Then maybe we trigger a review again to determine whether or not 46 47 we need to take a look at it again. 48

1 MR. IAROCCI: I totally agree with Peter and everybody. The comments that you guys have made I think are right on, but, 2 Chester, to your point, that is the follow-up to this. Once we 3 4 can agree, and, Robert, I totally agree with the review panel. 5 I think that if we, as a second to review panel, to that 9.6, 6 that we go with that. 7 If the SSC -- Believe me or not, the SSC or the councils, if 8 9 they think that's going to be too high, they're going to regulate that. If we come in agreement with the review panel to 10 start with that number right there and move forward. 11 12 13 One of Gary's earlier comments, and one of the variables, Peter, 14 that I want everybody to consider in this room is not only the 15 virus, but the weather. We have one hurricane early in the 16 season, that wipes out that lobster stock for that year. We 17 lose our traps and the catch is way down, and so that one year, 18 whether if it's weather related, we might only catch three-19 million pounds or four-million pounds. 20 21 It's not because we're overfishing or because the fishery is in 22 trouble, but it's because those animals moved, because of that weather occurrence, and it takes sometimes a while to bounce 23 24 back, and so we've got to take that into account, whether it's going to be the virus or habitat or look what's happening, and 25 26 you said it, Gary, in Florida Bay right now with the water 27 quality. 28 29 Things are happening right now, and I want to apologize for 30 taking that call. That was Miguel Rolon. He is the Executive 31 Director of the Caribbean Council, and he's very concerned about -- They're shutting down the fishery in the Caribbean, and he's 32 hoping that what we do here can be used down there to help 33 34 strengthen that, and, Doug, if you could, when you get a chance, 35 if you call Miquel. He would appreciate a call, just to fill 36 him on what's going on, and he said to blame him for me taking 37 that call and going out of the room. It wasn't my fault. Ιt 38 was his. 39 40 Go ahead, Mr. Bill, and then I've got Mr. Ben CHAIRMAN PADRON: 41 and then Bruce. 42 43 MR. MANSFIELD: What Tony was just saying, that's -- My concern 44 is that we don't want to overlook those countries. The same bad things that you just mentioned that could happen in the Florida 45 Straits could happen in those countries to interfere with our 46 intake from those sources, and so it's bigger than even we can 47 48 handle. It's going to be hard, guys, but let's do try to take

1 into consideration that we don't want to react to what just 2 happened. It's got to be why it happened. 3

4 CHAIRMAN PADRON: Mr. Ben, you're up.

Thank you, Daniel. I'm looking at this a little 6 MR. HARTIG: 7 bit from the outside perspective. I mean I look at the 8 information you all have, which is a lot of really good 9 information. I think the productivity increase is real. You guys had a lot of discussion about effort and things of that 10 nature, but Tom said 15 percent of the recreational fishery is 11 increasing as well and 15 percent of the commercial fishery, and 12 13 so I think that's real. I think we're relatively safe going 14 forward with that higher number.

16 The other thing that hasn't been mentioned today is you guys 17 have an insurance policy in lobster, to some degree. You don't 18 have -- I don't have to tell you how much closed area. You know 19 how much closed area you have, and I don't know if FWC has done 20 an approximation of the number of lobsters or the additional 21 recruitment you get out of those closed areas, but there is a 22 lot of eggs that comes out of that system in the closed areas, and so you guys have some insurance in that regard, and that's 23 one of the other reasons why I wouldn't have any heartburn in 24 25 going to the higher number, because there are reasons why you 26 can do that.

28 CHAIRMAN PADRON: Bruce.

29

37

44

27

5

15

30 MR. IRWIN: Both of those motions passed, correct? I wanted to 31 make a new motion about, for one, the federal South Atlantic and 32 the Gulf should make lobster a priority species for size 33 monitoring. The rationale being that it's, I think, more 34 important for lobster, because the landing data that we were 35 trying to manage the fishery by is skewed by hurricanes, like he just said, but with upstream. 36

There's too many things that go along with that, and so I think that lobster should be a priority species for monitoring, and I would also like to, either in the same motion or another motion, that the state put more effort into the size monitoring also, and I think that helps go into the reason we're going to the 9.6 million.

45 MR. BURTON: Along with that, Bruce, you had proposed an 46 accountability, a trigger motion as well. We've got to develop 47 that, and so let's --48

MR. IRWIN: I think, for me, I would like to see, in two years, 1 2 two years straight, of the size and the age being reduced of the 3 monitoring program. I would like to see a review panel again, 4 just like we have with the ACL, a review panel. 5 6 What they do, the review panel says, okay, this is why it 7 happened, if they don't know why, then we've got to figure something else out. We have to go about maybe lowering the ACL 8 9 or maybe doing -- That should be done and that should be decided by that review panel, because we don't know what can happen in 10 the future, but, yes, I am all for two years of it going down --11 12 Then we might have a problem. You might need to put a panel 13 together and review it and start the appropriate motions then. 14 15 MR. BURTON: But we've still got to make that motion to have the 16 two-year trigger, and so who is good at formulating this? 17 18 I wanted to put this motion forward and then maybe MR. IRWIN: 19 This is just to separate that from that. separate that. The 20 trigger I would like to put in too, but I was going to make 21 another motion later for that, but this just says lobster are 22 priority species for size monitoring, because we all know that's the most important thing assessing our stock, and I am very 23 interested in your work and what you have to offer, and I can't 24 wait until you come out and show us, and maybe we don't need to 25 26 put the effort in. Maybe her work is going to change the way we 27 look at things of that, and so definitely the more information 28 we have, the better off we are. 29 30 MS. ZHANG: I agree. Even when use size-structure models, the 31 size inputs should be very important. 32 33 GREGORY : Bruce, would you mind if we take the word MR. 34 "management" out and put "trip intercept programs"? That would 35 be more explicit. Those are the programs that actually do the 36 size monitoring. 37 38 MR. IRWIN: No, I wouldn't mind at all. 39 40 MR. NICHOLS: I don't think we've had a second yet, and so I 41 will second the motion. 42 43 CHAIRMAN PADRON: I will call it to a vote. All in favor from the South Atlantic; any opposed. It's unanimous. 44 45 46 I think that's a great point that Bruce brought MR. NICKLAUS: 47 up. It's definitely important in managing our fishery. I am going to put a motion forward to mirror that of the South 48

1 Atlantic Council for the Gulf Council.

3 CHAIRMAN PADRON: We have a motion. Do we have a second? 4 George seconds. All in favor; any opposed. The motion carries. 5 Mr. Doug, go ahead.

7 MR. GREGORY: In talking about a trigger, the system we have now 8 has a trigger for a review panel to meet if the ACT, and we 9 haven't talked about what number that would be with the new 10 system, is reached or the ACL is reached at such and such a 11 time, and there has been concern about a lower trigger. 12

13 Notwithstanding the comment about hurricanes and stuff, what 14 about considering a lower trigger that says if catch per unit 15 effort gets to the level that it was at during that average of 16 ten years when there was low landings that a review panel be 17 convened, and if it was due to a hurricane, then that's the explanation, but if it's not due to a hurricane, then does that 18 indicate something wrong with the fishery? I am looking for 19 20 that lower-level trigger that you all are talking about.

22 AP MEMBER: Could you repeat that, Doug, about how the trigger 23 would be met?

25 MR. GREGORY: What the trigger would be is if the catch per unit 26 effort in a year gets to the low number it was in during the 27 2000 to 2010 period, because we basically have the same number 28 of traps in the fishery, and I'm looking at gross landings 29 divided by gross number of traps and so, in that ten-year 30 period, catch per unit effort was low compared to what you have 31 now, and much lower than what it was in the 1990s, and that 32 could be a trigger, but it doesn't trigger anything definite to 33 be done, but another review panel meeting to evaluate what the 34 cause might be.

36 **CHAIRMAN PADRON:** With that being said, where our recruitment 37 comes from other places, it's kind of out of our hands. I mean 38 as far as putting a lower limit, I guess you could, like you 39 said, review, but, outside of that, there's really nothing we 40 can do. Go ahead, Mr. Bruce.

41

35

2

6

21

24

42 MR. IRWIN: I think that's a great idea. Since we are going to 43 the high ACL, I think we need to alleviate some of the concerns 44 that we may be not monitoring the fishery well enough, and so 45 that helps more monitoring on it, to where we're setting things 46 in place that we're just not going to catch our 9.5 million 47 every year and be just under it and we're all going to be happy, 48 and so we need to alleviate concerns over the SSC and other

1 entities from the council that -- We're not trying to get everything we want here. We're just saying that this might not 2 be the best tool to use to manage these fisheries and so we're 3 4 willing to do X, X, O, O, or whatever, to make sure that this 5 doesn't happen, overfishing. 6 7 CHAIRMAN PADRON: Mr. Tony and then Mr. Peter. 8 9 MR. IAROCCI: Thank you, Mr. Vice Chair. I agree totally with 10 Bruce and Doug, 110 percent. Josh, I know the external recruitment has a lot to say about it, but, as Tom stated 11 earlier, we've got the virus to consider, and Gary has already 12 13 said, but I think we all know what bad shape some of the places 14 are in Florida Bay right now and what happened in areas this 15 year where there were no lobster. 16 17 There was no oxygen and there was the seagrass. It was so hot 18 that they weren't there, and so there are other variables 19 besides the weather and recruitment that we have to consider. 20 Doug, that average, and I don't know if we can come up with it 21 right now, but I honestly think that if we put that in a motion, 22 that ten-year average, for a low, what that would be with the 23 9.6 average high, I think that would be a win/win on both sides, because we have that little trigger on the bottom that we would 24 25 have to look at. 26 27 MR. GREGORY: The thing that got my attention here today that is 28 interesting is that you all are more concerned with something 29 going wrong rather than landings increasing, which, in your 30 minds, is an indication of things getting better, and Tom made 31 that statement at last year's review panel, that if -- For a 32 different reason. 33 34 I mean if we were to do something in management that made this 35 fishery better, it would trigger the ACL, and so there is no 36 incentive for us to try to do anything to make landings better, 37 and so having a lower trigger, going along with your earlier proposal, seems to suggest that you're more concerned about 38 39 things falling apart than things getting better, as far as 40 landings go. 41 42 CHAIRMAN PADRON: Mr. Peter.

43

44 MR. O'BRYAN: Thank you, Mr. Vice Chairman. I am going to 45 disagree a little bit with Doug's recommendation, because he is 46 setting the trigger at the very rock bottom. It seems, to me, 47 if we wait until we go past rock bottom before we start looking 48 at it that something catastrophic could have happened and it's

just kind of too late then. 1 2 3 I would rather see that lower trigger be based on -- Tom, maybe 4 you can help me. I know there's some fluctuation year to year. You have a catch and then a drop and then the catch goes up 5 again, but if we said like the ten-year moving average and two 6 7 standard deviations about that average, would that trigger a low 8 or something to look at, I mean something that would kind of 9 give us a statistically-valid number to look at, which would hopefully not be triggered by just the seasonal up and down? 10 11 12 I don't like the idea of waiting until we get to rock bottom 13 before we say, okay, two years after we've gone below rock 14 bottom, now we're going to start looking at it. I think that's 15 just too late. Something catastrophic could happen, and so I 16 would rather see something on the ten-year moving average and a 17 one or two-standard-deviation drop below that might trigger a 18 review. 19 20 If we include this year's data, for the last ten MR. MATTHEWS: 21 years, the ACL would be set at 8.1 million pounds. The average 22 is 6.3 and, currently, we use 1.5 standard deviations, which are 1.7 million pounds, and so that lower end of the ACL would be 23 24 approximately 4.6 million pounds, and so that would have been 25 triggered by several of those years in those low landings 26 periods. 27 28 MR. GREGORY: What did you just do? You took the landings and 29 you took the standard deviation below the mean? 30 31 MR. MATTHEWS: Yes, that lower trigger I thought was what I was 32 asked. 33 34 Right, but it wouldn't have been two consecutive MR. O'BRYAN: 35 years. 36 37 MR. MATTHEWS: The average for the last ten years is 6.3 million 1.5 standard deviations is 1.7. That would make the 38 pounds. 39 lower threshold, if that's what you were trying to explore, 4.6 If we go back to our landings numbers, those 40 million pounds. 41 would have been met in 2008, and so we would have bumped into 42 that one-time in the last ten years. 43 44 MR. GREGORY: We exceeded it going down? 45 46 MR. MATTHEWS: We exceeded it going down. We're below it. 47 48 MR. O'BRYAN: But not two consecutive years.

1 2 MR. MATTHEWS: Correct. It would have happened once. 3 4 MR. O'BRYAN: Okay. I haven't made a motion, but I think that's 5 reasonable. I want it to be flexible enough where if we do just get a bounce, that doesn't trigger a review, but if we hit below 6 7 that target two years in a row, then it might be worthy of a review, and then, if the trend continues, that number will creep 8 9 up, because we add a new year, another lower year falls off, and so that number will keep moving up, theoretically, if the trend 10 11 continues. 12 13 CHAIRMAN PADRON: Mr. Bruce, go ahead. 14 MR. IRWIN: 15 Doug, you were saying one year, just as a starting 16 point, in other words? 17 18 MR. GREGORY: Yes, but he's right that it's a real low trigger. 19 20 MR. IRWIN: It is. It's a little too low, I think. I think 21 maybe if we went with a three-year average of the low as a base 22 number, and then if you hit that target two years in a row, 23 because that shows a trend down that way, two years in a row 24 with a three-year average. 25 MR. GREGORY: What you all can do is suggest both of these to go 26 27 forward, because we're going to have to go back and actually run 28 the numbers and run them by the SSC and get their input as to 29 what is the most reasonable to them. To me, the important thing 30 is carrying the message that you're more concerned about things 31 dropping off the cliff than getting better. 32 33 CHAIRMAN PADRON: Mr. Gary. 34 35 MR. NICHOLS: I agree with both Bruce and with everybody here, 36 but how to write that up -- Can we make a motion to present an 37 average from three years that would -- How would we write it up to where we get an average of a low year and go forward with 38 39 How do we make that motion? I mean I don't mind making that? the motion, but I had the motion until you just changed that 40 41 idea, and so I kind of -- I thought we were -- What would be the 42 back from 2000 to 2010 average? You were like 4.6, and then if 43 we averaged that out? Would that be better or worse for the 44 whole scenario? 45 46 MR. MATTHEWS: I'm sorry, but what years, and are we high or 47 low? 48

1 MR. NICHOLS: I think you were talking about the 2000 to 2010. 2 Is that the years you're talking about or no? 3 4 AP MEMBER: No, those are the bad years. 5 6 MR. IRWIN: If you look, the low years, about 2001 and 2002, through 2003 and 2004, it's been three and five-million, 7 8 basically, and so your average would be about four-million 9 pounds. If you hit four-million pounds two years in a row, it would invoke a -- I think this is the motion you're trying to 10 make. It would invoke a review. 11 12 13 MR. NICHOLS: Right. We're just trying to put into a motion 14 that we come up with a low number to trigger us to have a 15 review, and I think it's better to be over a three-year cycle, 16 basically, like he was saying, on average-wise, and then you 17 throw out a year for a hurricane and you just don't have to do 18 anything on it, but it gets you pretty much where -- It includes 19 what you said and what Doug said, I think, if I'm not mistaken, 20 but I don't know, writing that in there, how you're going to do 21 it. 22 23 It could be a two-year average or a three-year, but it's very 24 important to set the low -- All we want to do is -- I guess the 25 motion is just to set a low mark to address to have a review 26 panel, and that's just reasonable, and that's the way we should 27 be managing this and not on the upper end, because the upper end 28 has the benefit of us doing something right, not wrong. 29 30 Our management system here seems to be bass-ackwards. We should 31 be managing to catch things and not to -- If we have something 32 wrong, we need to address it as an issue and not address it 33 because we're catching something. At least that's what I would 34 think. 35 36 MR. IRWIN: Peter, would you be okay with the three-year 37 You wanted to go ten years, and I want to just tell average? 38 you one of my concerns with a ten-year average. You are taking 39 the good years in there also, and if you're coming up and bumping that five-million pounds, I mean there could be a couple 40 41 of two or three years where we do drop down to that, because of 42 external factors. 43 44 I think, if we took the three-year low and you went around four, that you would have something to tell, because the low is three, 45 as you can see. The low is three. When we hit three, we have a 46 47 problem, but some of these three-million-pound years, I know 48 were because of storms.

2 One thing that always happens when you see the low landings is 3 it usually bounces back the next year by quite a bit, because 4 the lobster didn't get caught. They left in the storm. They 5 leave, they're gone, and they come back next year and you catch 6 them, and so would you be comfortable with that, because you're 7 the one who suggested the ten-year. Would you be comfortable 8 with a three-year?

10 MR. O'BRYAN: Are you talking about just the static three-year 11 or would that be moving, the three years? 12

13 MR. IRWIN: Three-year average. Take the three-year average of 14 the low, which we just looked at it. It's about four-million 15 pounds. If we hit that two years in a row, a review panel is 16 put together and we review it. 17

18 MR. O'BRYAN: Yes, I guess probably. I just want to make sure 19 that -- Say you guys have a couple of good years going forward, and now you're at nine-million. All of a sudden, we drop down 20 21 That's a pretty huge drop, and I would be afraid that to four. 22 that wouldn't trigger at least a review, and so that's my only concern, is -- I'm really hopeful you guys keep going up, but 23 24 that just makes that drop further before we look at, and so that 25 was really my only concern. I wanted something that kind of 26 kept pace with the increase. Then if something falls off the 27 cliff, we're on top of it quicker than getting down to an all-28 time low.

29

36

38

1

9

30 MR. IRWIN: Not to get ahead of ourselves, but I think setting 31 some other triggers in here, we would see that four-million --32 You would see that size structure change if it was a collapse of 33 the fishery from nine-million to four-million. You would 34 definitely see that would show up, maybe faster than -- It would 35 show you a precursor to the landings. Do you know what I mean?

37 MR. O'BRYAN: Yes.

39 I think that's a better trigger than landings, MR. IRWIN: because I've never been a landings type of guy in this fishery, 40 41 because I've been in it for a long time, and you better save 42 your money when you make it, because when it comes, it ain't 43 very good sometimes, and so it's a very hard fishery for 44 landings, and I think all fisheries are, really, to run landings 45 as your main management tool. 46

47 They're useful. They're a tool, but the size structure and the 48 stock assessment, how well the stock is and the biomass and all

that, is much better than landings, and that's why I think four-1 2 million -- Nine-million, we may never see that in our lifetime. We may see it. I hope so. Maybe things will keep getting 3 4 better and better and better, but maybe if we got to nine-5 million, I would say, well, maybe it does need to be higher than four-million, but I've seen plenty of those four-million-pound 6 7 years, too. 8 9 I guess, just along those lines -- Also, my whole point is here that not that we would really take action to restrict anything, 10 but to review what's going on, and so it's more kind of we've 11 seen this big drop and why? Okay, we know had two hurricanes in 12 a row and that explains it and fine, and we all go on our merry 13 way and we're good, but I just want to make sure that if 14 15 something falls off the cliff that we're in a good position to 16 take a quick look at it and determine why it happened and then 17 go forward, and so that's all I'm really trying to accomplish. 18 19 If you guys are comfortable with four-million -- I think we're 20 going to be back here at two years looking at the size and age 21 stuff anyway and we will have hopefully her model, and so I 22 think, again, as a temporary thing, we could go with the four 23 and then I would like us to be back here again in two years. I don't think 24 This once every six years stuff is good management, and, personally, I know you guys are busy and you're 25 26 taking a whole day out of potentially working and stuff, but if 27 you guys are good with four, I can live with that. 28 29 CHAIRMAN PADRON: Mr. Douq. 30 31 MR. GREGORY: The councils are busy too with red snapper. 32 33 AP MEMBER: There is an easy fix for that. 34 35 Beginning in the 1970s, the lobster scientists, MR. GREGORY: every two or three years, would have a little science workshop 36 37 at the Dry Tortugas or at FSU or FIU or somewhere. Beginning in 38 2003, because of the drop in landings, that workshop started 39 including commercial fishermen and inviting commercial fishermen, and those workshops have been held in the Keys. 40 41 42 They're not done every year, but that first workshop with the 43 industry was because of the decline in landings, but, now, the 44 lobster biologists have these workshops every two or three years, because they're continuing to get grant money from MARFIN 45 46 and Sea Grant and that sort of thing, and I see that in their 47 proposals. 48

There is some informal mechanism for keeping an eye on things 1 2 while we're all busy doing something else, and so I don't think things would get as bad as they did in the 2000s without 3 4 somebody raising a red flag to it. 5 MR. O'BRYAN: If I may, Mr. Vice Chair, just as a personal note, 6 7 I'm on the recreational side, obviously, but I think it would really help me a lot if I could wrangle an invitation from some 8 9 of you guys when you go out on your boats and you're doing the job, so I have a better understanding of what you're doing, and 10 I would really love a chance to go out there and watch what you 11 It will make me better, sitting here and having a better 12 do. 13 understanding of what you guys do on a daily basis, and so I 14 will just throw that out there. 15 16 CHAIRMAN PADRON: Mr. Peter, do you know how to use a scraper? 17 18 MR. O'BRYAN: No, but I'm pretty fast learner, and so if you 19 want to show me something, I will be glad to tackle it. 20 21 CHAIRMAN PADRON: Good enough. We can hook you up. 22 23 MR. GREGORY: You also need a lionfish remover, right? 24 25 CHAIRMAN PADRON: All right, and so where are we with the motion 26 on the board? 27 28 MR. NICHOLS: The crux of the motion is basically the one that 29 Peter and Bruce just figured out here, the low of -- Is it a low 30 of four-million, that response to the trigger mechanism? Is 31 that the motion? 32 33 MR. IRWIN: It's a three-year average of the low three years, which we're using 2001 to 2002 and 2003, or maybe it's -- Yes, 34 35 it's 2001 and 2002 to 2003 and 2004. Is that three years? Yes, 36 three years. At those years, it comes out to roughly four-37 million. 38 39 MR. NICHOLS: That would be my motion, considering Bruce just 40 straightened it out. 41 42 DR. KILGOUR: I have something written, and I hope that this 43 captures it. If it doesn't, then -- The panel would like there 44 to be a lower landing trigger that would initiate a review panel based on the low three years of landings. Is that what you guys 45 That way, we can take the actual low three 46 are all asking? years and the actual numbers and base it on those three years, 47 48 and is that correct or am I missing --

2 Correct. About four-million pounds is what it MR. NICHOLS: 3 looks like. I did that a couple of minutes ago. 4 5 DR. KILGOUR: Okay, and so there be a lower landing trigger that 6 ___ 7 8 MR. IRWIN: I would like to recommend that any motions made, 9 that she rewords them, so we can sound a little smarter. 10 11 That would initiate a review panel -- A lower DR. KILGOUR: landing trigger based on the three low landings years while --12 13 Let me get you the actual years from the data, because that --14 Is that all right? It's 2001/2002 -- I should go to your 15 presentation, Tom, shouldn't I? 16 17 MR. MATTHEWS: Yes, that last slide. Bruce, were you picking 18 the three lowest years or going for consecutive years? 19 20 MR. IRWIN: I was going for consecutive years. 21 22 DR. KILGOUR: Okay, and so it would be 2001 to 2002, 2002 to --23 That's fine. Just have 2002-2003, so those three fishing seasons are on there. 24 25 26 MR. NICHOLS: Is there a mechanism in there to throw out the 27 hurricane year or is that going to just be looked at as a normal 28 review process? 29 30 DR. KILGOUR: You can do whatever you want. 31 32 MR. NICHOLS: I think that we ought to include the catastrophic 33 weather condition clause in there somewhere, so it doesn't make 34 us have to have a review. That needs to be part of that motion. 35 36 DR. KILGOUR: So you would like 2003/2004 to be removed or was 37 that the 2004/2005 season? 38 39 MR. NICHOLS: I'm just talking about futuristically, like at the 40 end of that motion. Oh, it's a separate -- Forget what I just 41 said. 42 43 MR. IRWIN: Do you have -- I know you have that little tool in 44 your computer. Do you have the number? 45 The average of those three is 5,312,000. It's 46 DR. MACLAUCHLIN: 47 5.3, and so, for those three years, it's about 4.33 million 48 pounds in 2001/2002, and then it goes to 6.03 the next year and

5.57 the next year. 1 2 3 MR. IRWIN: I was looking at pure commercial, and you're looking 4 at overall. I think that's acceptable to me. 5 6 DR. MACLAUCHLIN: So about 5.31 million pounds. 7 8 CHAIRMAN PADRON: That's the overall -- That's including 9 commercial and recreational? For commercial landings, it would 10 be 3.07, 4.57, and 4.15, and so it would bring that down quite a 11 bit. 12 13 MR. MATTHEWS: The actual lowest three-year running average year 14 is 2005, 2006, and 2007, which, of course, includes the major 15 hurricane year, and that number is about 5.06. They're all 16 close. 17 18 DR. MACLAUCHLIN: So do you want to use just the commercial 19 landings as a trigger or the total landings? 20 21 MR. IRWIN: I think we have to do total. We're managing the 22 entire fishery. 23 24 MR. NICHOLS: I agree that it should be total. 25 26 MR. O'BRYAN: Would that be if we go below that level two years 27 in a row? Is that -- Then would throw out the one odd hurricane 28 year, so we cover that, and so do we need to have that in the motion, or do you guys understand it's two years in a row? 29 30 31 AP MEMBER: It should say two years in a row. 32 33 **AP MEMBER:** I think it ought to be in this motion, yes. 34 35 AP MEMBER: I agree with that, what Peter just said. 36 37 CHAIRMAN PADRON: Do you have something to say, Mr. Simon? 38 39 No, but just a question to Kari. Would years MR. STAFFORD: 40 2008, 2009, and 2010 trigger that? 41 42 **AP MEMBER:** It would have. 43 44 DR. MACLAUCHLIN: Yes, there are several years. If you're looking at the portal, where you can play with the different 45 ones, there's a tab over there that says "data" and it pulls up 46 the table, and that's what I'm looking at. That 5.31 million 47

94

pounds, there are several years, 2007/2008, 2008/2009, actually

1 2005/2006.

2

6

9

14

30

35

37

42

44

47

3 MR. STAFFORD: We're talking about the three-year average, and 4 so the three consecutive years, 2007/2008, 2008/2009, and 5 2009/2010. Maybe I'm wrong.

7 MR. IRWIN: No, it's two consecutive years would be the trigger, 8 and so I don't see that making the trigger happen.

10 **DR. MACLAUCHLIN:** I see what he's saying. So if we use the 11 average of 2008, 2009, and 2010, that would give you a lower 12 value. It would probably be around five, or maybe a little 13 lower, 4.7.

15 MR. NICHOLS: I think the idea is just to get this to go through 16 and then get to the council level and the Scientific and 17 Statistical Committee. They will straighten out anything that 18 we may have just kind of been a little bit off on here, I think, 19 if I'm not mistaken. As far as getting the exact numbers, I 20 don't think that's the important question. It's the idea or the 21 premise that we have there.

23 I think also George brought up a good point. MR. IRWIN: Since 24 he won't say it, I'm going to say it. If you notice, the three 25 years we're taking is right after the big down, and so we ought 26 to be -- When that happens, that big down, if you can see, it 27 goes way down and we're taking the next three years, and so 28 we're taking the right three years, I think. If we see that, we 29 better get together and something needs to be looked at.

31 **DR. MACLAUCHLIN:** I just want to be clear. You're selecting the 32 three years to set your trigger value at about 5.31 million 33 pounds, and any year that landings exceed that, then it triggers 34 the review panel or below it?

36 AP MEMBER: It's below that.

38 **DR. MACLAUCHLIN:** Okay, and so it has to be landings -- The 39 trigger is that the landings would be below that value for two 40 consecutive years and then you would initiate a review panel to 41 figure out what's going on?

43 AP MEMBER: Yes.

45 MR. BURTON: So we need to put the average in there, should we 46 not?

48 CHAIRMAN PADRON: It says, right there, below this average for

1 two consecutive years. Granted, if we quantified it now, we 2 could always put the number in there. 3 4 MR. BURTON: Let's come up with a number, so they understand --5 So that they can more easily disagree with it. 6 7 CHAIRMAN PADRON: Go ahead, Mr. Chester. 8 9 MR. BREWER: Certainly you can put the number in, but I would --10 Since we are probably going to be needing to try to explain to the other council members what happened and why, and why the 11 recommendation was made, I would much prefer that you leave the 12 13 Then, of course, you can add the average, what that vears in. 14 average would be. 15 16 CHAIRMAN PADRON: I think she's adding it up now, and so, once 17 we put that number in there, is everybody happy with the way 18 it's worded? 19 20 MR. MATTHEWS: That number is 5.3. That's the average of 21 fishing years 2001, 2002, and 2003. 22 23 CHAIRMAN PADRON: All right. Is everybody okay with that? We 24 have a motion on the floor. Do we have a second? 25 26 MR. IRWIN: I will second the motion for the South Atlantic. 27 28 CHAIRMAN PADRON: We have a second. All in favor; any opposed. 29 None opposed. 30 31 AP MEMBER: I just wanted to ask a question. Do we need the 32 total catch, to mention that? 33 34 CHAIRMAN PADRON: What was that? I'm sorry, but I couldn't hear 35 you. 36 37 Do we need total catch mentioned in that or are they AP MEMBER: 38 going to assume commercial? 39 40 CHAIRMAN PADRON: I believe that's total catch. That was the 41 South Atlantic. Do we have one from the Gulf? Does somebody 42 want to make it from the Gulf? 43 44 MR. GAITANIS: I will so move the same. 45 Mr. Robert did the motion. 46 CHAIRMAN PADRON: Do we have a Second from George. All in favor; any opposed. 47 second? Go 48 ahead, Mr. Tony.

2 I think this gets us where we want to go for a MR. IAROCCI: 3 start, but I want to make one comment before I forget about it. 4 Peter, to your comment about asking to go on a commercial 5 lobster boat and to see how it's done, I have been trying to 6 advocate that for years and years with the SSC, with council 7 members. 8 9 Ben, you remember, God rest his soul, Richard Nielson invited everybody, and, to this day, I look at people -- When I was on 10 the council and I sat around the room and I asked them, I said, 11 have you ever seen a lobster trap? 12 Have you ever seen a 13 gillnet? Have you ever been on a boat? Have you ever put a 14 pair of boots on? Most of their answers are no. 15 16 I think it's time now, and that was great that you asked that, 17 for people to be aware of the surroundings and making decisions 18 on livelihoods and fisheries that they really don't have a clue. 19 They're looking at models and they're going by hearsay and 20 things that happened right outside of their reality, and so I 21 applaud you for asking that, and I think more people should do 22 it. 23 24 MR. HARTIG: (The comment is not audible on the recording.) 25 MR. GREGORY: We've got two more things on the agenda, and the 26 27 coral thing we've got to get to today. This is extremely 28 important to the Gulf Council, to review these proposed coral 29 areas, particularly the Pulley Ridge area. I don't know where Richard went, but, as far as I know, his crew is one of the few 30 31 that fish to the west. We really want to get people's input on 32 that, and so I encourage you all to move on. 33 34 CHAIRMAN PADRON: Okay. Let's move on then, unless there's 35 anything else that anybody left off. Go ahead, Mr. Gary. 36 37 MR. NICHOLS: Do we need to make a motion on the hurricane year, because we didn't do that, just to add it at the very end of 38 39 this, or are we okay? 40 41 MR. IRWIN: Because of the two years in a row, it's going to 42 alleviate that. 43 CHAIRMAN PADRON: Moving on to the coral. 44 45 46 DR. KILGOUR: Before coral, we have the closed areas for spiny 47 lobster, and so Gabby is here to give you a presentation on 48 that.

1

1 2 3

11

26

36

42

REVIEW AND DISCUSSION OF SPINY LOBSTER CLOSED AREAS

4 MS. GABBY RENCHEN: Good afternoon, everyone. My name is Gabby 5 Renchen. I'm a biologist at FWC down in Marathon. I'm part of 6 the spiny lobster team. Today, I'm going to talk to you about a 7 grant-funded project that we did looking at different closed 8 areas throughout the Florida Keys and trying to evaluate trap 9 fishing compliance with these areas as well as marine debris 10 accumulation in them.

As I just mentioned, this was a two-year project that we started in the fall of 2014. The two main purposes of this project were to evaluate fishermen compliance with the marine protected areas that prohibit trap fishing and then to go into these same areas and evaluate marine debris accumulation.

18 This project was funded by the NOAA Coral Reef Conservation 19 Program, which was awarded through the National Fish and 20 Wildlife Foundation, and so there are several -- As you all 21 know, there are several closed areas throughout the Keys, and 22 they have all been created for all kinds of reasons. They're 23 under different management, but the ones that we focused on, 24 what they all have in common is that they protect coral reef 25 habitat and they prohibit trap fishing.

27 You all are very familiar with these areas, and I know -- I 28 apologize that it's probably kind of hard to see, but I just 29 wanted to show this mosaic of closed areas that we have all 30 throughout the Keys. Many of these are very small. The ones 31 that we chose to focus on were the Sanctuary SPAs, the 32 preservation areas. We also had the Pennekamp Lobster Exclusion 33 Zones and then, finally, the relatively new NMFS -- The spiny lobster closed areas, which we're calling Acropora protection 34 35 zones. Those were created in 2012.

37 Like I said, they were all created at different times, but what 38 they all have in common is they protect coral reef and they 39 prohibit trap fishing. I'm sure you all are also very familiar 40 with this. Corals have been declining here in the Keys for a 41 long time, as well as all throughout the Caribbean.

In the 1970s, we had about 40 percent live coral cover, whereas today we have about 10 percent. No surprise, along with that, we've also seen a decline in our Acropora species, and so the Staghorn and Elkhorn corals, and those were actually listed as threatened under the Endangered Species Act in 2006. There has been many natural and anthropogenic stressors that have been

1 implicated in the declining coral reefs, but, for us, our focus 2 is going to be on lobster trap fishing. 3 4 Something you all are obviously very familiar with, but this is just a quick summary slide on the lobster fishery. 5 This is for There were about 540 trap fishermen using 6 the 2014 season. approximately 475,000 traps, and that's for the fishery as a 7 whole, but the majority of those are obviously used here in the 8 9 Keys. There were 6.2. million pounds landed that year, and the estimated value was \$53 million. 10 11 12 FWC, over the years, has done a suite of studies trying to 13 understand the interactions that happen between traps and 14 Tom and his crew, long before I got here, looked at the corals. 15 impacts of dropping and hauling a trap in coral reef habitat. 16 The majority of traps are not fished in coral reef, but there 17 some there, and every time they are dropped and pulled, kind of 18 like where you see this trap here, they can impact an area about 19 the size of your hand. 20 21 We realize that the majority of the damage actually comes from 22 trap movement when storms come through and move the traps, and 23 so this actually causes traps to accumulate in coral reef 24 habitat even if that's not where it was actually fished. 25 Looking at the accumulation of debris, which is part of the 26 27 reason why we did this work over the last two years, and related 28 to the endangered species, is we have this picture here of the 29 Acropora cervicornis, which is the Staghorn coral, and there is 30 actually some trap rope wrapped around a colony here, and there 31 is also a trap slightly in there. We don't really know what the impacts are of all the rope being wrapped around coral, but 32 33 that's something that we're kind of trying to understand a 34 little bit further. 35 36 Moving on to our study, like I said, we focused on the MPAs that 37 prohibited trap fishing and protect coral, and so we focused on 38 the Sanctuary SPAs, which were made in 1997. These are 39 physically marked on the water with those big yellow buoys you see in the top-right corner, and their information is also 40 41 available on navigation charts. There is eighteen of these 42 throughout the Keys, and this doesn't include the larger areas, 43 like Western Sambo Ecological Reserve. This is just the SPAs. 44 45 We also looked at the Pennekamp State Park lobster exclusion zones. Those were made in 1993. They are marked with those big 46 white buoys, but their information is not on navigation charts, 47 that we're aware of, and there is eight of those up here off of

99

Key Largo. 1 2 3 Finally, the last group was the NMFS Acropora protection zones, 4 which were made in 2012. These are not physically marked on the 5 water, and their information is not on navigation charts, and there are sixty of these throughout the Keys. 6 7 8 The first thing we wanted to do was evaluate trap fishing 9 compliance in these areas, and so we went out in the fall of That was our first year, and we went to eighteen of the 10 2014. Sanctuary SPAs, eighteen of the NMFS areas, and then all eight 11 of the Pennekamp zones. We also did control sites, which were 12 13 open to trap fishing, and they were similar in size and contain 14 similar habitat as the other areas. 15 16 We went to each of these and we counted the number of traps in 17 each of these areas and we also recorded the GPS location of the actual trap itself. We would look for a buoy. Once we found a 18 19 buoy, we would follow the trap line to the actual trap and 20 record that location and not the buoy, because a lot of times 21 you would find a trap that was set near a boundary and the buoy 22 would actually be outside of the boundary with the trap inside, 23 and so it was really important for us to get the actual trap 24 location. 25 26 We did this in the fall of 2014. Also, during that same time, 27 we did an education effort. I will go to that next. This 28 involved putting what we were calling a courtesy notice on trap 29 buoys that we found inside any of the closed areas. We had a 30 specific one for each type that had information, letting them 31 know they were in a closed area, and then it provided a website 32 if they wanted to get further information. 33 34 We also sent additional information in the mail. It was the 35 quide to the spiny lobster closed areas, and so it just focused 36 on those newly-created areas from 2012, to send out more 37 information, and then we did have some other interactions with during this time. 38 fishermen Occasionally we would have 39 interactions on the water, and those were all good. People just 40 wanted to know what was going on. 41 42 We also received several phone calls, literally within hours of 43 putting these tags on traps, because people were obviously 44 concerned it was a law enforcement effort, but it definitely was not. We just wanted to get their attention, and it seemed to 45 work pretty effectively. Once we did that, we went out again in 46 the fall of 2015, to count traps again to see if the education 47

100

made any difference in the compliance.

2 This is just a good example of what we saw pretty frequently. This is one of the Sanctuary SPAs with the big yellow buoy. 3 4 This trap was set right inside the boundary and then another 5 trap buoy sitting right next to it. 6 7 All of these different areas were different sizes, and so the 8 number of traps we counted in these areas, we just converted it 9 to a density, in terms of number of traps per kilometer squared, and so what you have here on the X-axis is the type of MPA. 10 Then on the Y is the density of traps. 11 12 13 The black bars represent the density of traps from the first 14 year and then the gray bars are the density from the second 15 year, after we did the education. As you can see, the unmarked 16 areas, the NMFS ones, had the highest density of traps in both 17 years, whereas the marked areas, the state and sanctuary ones, 18 had a lower density of traps in those areas. 19 20 Also, between each year, we see that the density declined, which 21 we were very excited to see that, because it seemed like the 22 education did help make a difference in compliance. What you 23 might also be wondering about is why the control sites are so 24 much lower than the NMFS areas. 25 26 We don't know for sure, but we suspect that perhaps they're not 27 perceived as of good a fishing area as what the NMFS areas are. 28 Most of the really good coral reef habitat we have left here is 29 protected, and so we had to draw from what was left over. What 30 it does show us is that there was no real change in fishing 31 effort between those years, and so we know that what we were 32 seeing in those closed areas was actually a real change in the 33 number of traps. 34 35 The take-away points here are that obviously the unmarked MPAs 36 had the highest density of traps, and then we did see a decrease 37 in the density of traps in those closed areas after we did 38 education. 39 40 I'm just going to show you a couple of maps as examples, to show 41 you what we were seeing out there. This is Alligator Reef, one 42 of the SPAs. The boundary is marked in yellow, and this one in 43 particular has a big yellow buoy in each corner of the SPA, and 44 all of those little red symbols indicate a different fisherman. As you can see, the vast majority of the traps are concentrated 45 around the boundary of this area, and so just inside the 46 47 boundary. 48

1

You see a similar thing with the Pennekamp lobster exclusion 1 2 zones. These are also physically marked on the water with 3 buoys. Again, traps are pretty close to the boundaries, but 4 then you get to the unmarked NMFS areas, and this is Big Pine Shoal, and you see that traps are pretty much distributed all 5 throughout the area. 6 7 To look at this a different way, here is all the data looking at 8 9 the distance each trap was found inside of the boundaries, and, 10 as you can see with the state and sanctuary areas, which are marked, the bulk of the traps are located near the boundaries, 11 12 usually within about fifty meters or so, whereas with the 13 unmarked areas, traps were distributed pretty much all 14 throughout those areas, and most of those are pretty small, but 15 we did have a few that were larger, but the vast majority of 16 them weren't even big enough to have traps 200 to 400 meters 17 inside of them. 18 19 The take-away points here are the traps were concentrated near 20 the boundaries of the marked areas, whereas they were pretty 21 much distributed all throughout the unmarked areas. 22 23 Probably the most important thing for us was looking at the actual number of fishermen that we observed in these areas. 24 25 During that very first year, we observed thirty-two fishermen, 26 whereas during the second year, after we did the education 27 effort, we observed twenty. 28 29 Now, thirteen of those guys were guys that we observed from the 30 first year and then seven of them were new. We know that the 31 thirteen, they received both those tags on their traps and then 32 they also received the mailing, but these new guys only received 33 the mailing, and so it seemed like putting the tags on the traps 34 was a more effective way of getting their attention about these 35 Overall, we had nineteen fishermen that we didn't areas. 36 observe in the second year, because they took their traps out of 37 those areas. 38 39 The bottom table is just a quick summary of the average number of fishermen we observed in each of these areas. 40 As you can 41 see, the control sites are pretty similar to what we saw in the 42 unmarked areas, the NMFS areas, whereas the state and sanctuary 43 ones had fewer fishermen. In all of them, we had fewer 44 fishermen in the second year. 45 Just to wrap this section up, we saw more traps in the unmarked 46 47 MPAs. For those MPAs that actually had marker buoys, most of 48 the traps were near the boundaries, and we did have improved

compliance after our education effort, with 60 percent of the 1 2 fishermen we observed moving their traps from those areas. Then, again, with the new fishermen we encountered, it probably 3 4 suggests we're going to have to do an ongoing education effort, 5 just to make sure everybody is up to speed on these new areas. 6 7 The second component was evaluating marine debris accumulation 8 in these areas. We did this all last summer. We basically just 9 did diver transects that were a hundred-meters long. We did them within the centers of these areas and then also on the 10 We did 261 of these. On each one, we recorded the 11 boundaries. 12 type of debris, and so any debris that we saw and not just trap 13 debris. 14 15 Any debris, the habitat type, and then it's distance along that transect, so we can try and reference how far the debris is from 16 17 the management boundary or from a particular type of habitat. Ι 18 just have started the very basic overview of this data, and so 19 what I have is just a very coarse overview. 20 21 The vast majority of the gear was trap debris, and it could 22 include anything from a whole trap, like up top, or just the concrete ballast or slats, trap rope, or the throats. 23 That 24 accounted for 55.4 percent of the gear. 25 26 The next largest group is what we're calling other debris, which 27 is anything from snorkel gear to consumer-type items, like bottles and beer cans, plastic bags. Then the other group was 28 29 other kinds of fishing gear, which was 15.9 percent of the 30 We found anything from monofilament wire leaders to debris. 31 whole fishing poles and stuff like that. 32 33 Focusing on the trap debris, the majority of it was in coral 34 reef habitat, 54.3 percent, with 22.5 percent in the hard 35 bottom. As you can see, we had less in sand, seagrass, and then the coral rubble habitats. 36 37 38 Just to wrap that up, trap debris was the most prevalent type of 39 debris that we observed. It seemed to be accumulating in coral reef habitat, and it was found in all of the MPA types that we 40 41 evaluated. 42 43 Just to finish this up, our education effort did seem to help 44 improve compliance. The marked MPAs obviously had better compliance than those that were unmarked. 45 It seems like the area that is actually protected by the MPAs is probably smaller 46 47 than what was actually intended, because of traps that are fished inside of those boundaries. 48

1 2 From our experience going out there, oftentimes you would see 3 several lines of traps along the boundaries and people just 4 fishing inside one another, as close as they can to those 5 boundaries, and it's easy for a trap to just sneak in there when you're dropping it or get moved in by wind. That's just 6 7 something you have to consider when you're thinking about the 8 MPA design. 9 Also, the last thing we realized was that the MPAs might not 10 actually protect corals from trap debris, because it's easily 11 transported by wind, and so even if it's not where they are 12 13 fishing, it could be moved in there and accumulate there over 14 That's all I've got, and I would be happy to take any time. 15 questions. 16 CHAIRMAN PADRON: Mr. Tony and then Mr. Peter. 17 18 19 Thank you. I can remember back -- We did a MR. IAROCCI: 20 cleanup one year in the Sanctuary. Billy Causey was on my boat, and we had the discussion about debris to habitat, and we had 21 22 picked up a couple of cement pieces out of a trap that had -- It 23 was like a live rock. It was growing, and the question was posed to Billy of, Billy, is this debris or is this habitat? 24 25 26 Plastic funnel that was grown into a plastic trap, it was 27 totally grown up. I still have the funnel in my shed with coral 28 on it. It was the same question was posed. My question to you 29 is once that piece of cement out of a trap is on the bottom --30 You go into an area like that and say it's like a live rock. Do 31 you still categorize that as debris or habitat? 32 33 MS. RENCHEN: We categorize it as debris for our purposes, but 34 if you were trying to do a cleanup or something, you would 35 really have to consider if you're going to cause more damage if 36 you take that out. If it's got coral or something growing on 37 it, you probably would want to leave it there, but, for our 38 stuff, we just called it debris. 39 40 CHAIRMAN PADRON: Mr. Peter. 41 42 MR. O'BRYAN: Thank you. Gabby, when you said the marked areas 43 were on navigation charts, does that include electronic charts, 44 like GPS-type? 45 46 MS. RENCHEN: Yes. 47 48 MR. O'BRYAN: Okay. Thank you. The National Marine Fisheries

```
1
    ones are not even on the GPS maps?
 2
 3
    MS. RENCHEN: Not as far as we are aware. I don't believe so.
 4
 5
    MR. O'BRYAN:
                  Is there any action telling them to get in gear
 6
    and get them marked? That seems that would alleviate a big
 7
    problem.
 8
 9
    MS. RENCHEN:
                  I can't speak for the councils on that, but I am
    not aware of if anybody has been pushing for that. I don't know
10
    if anybody else from the councils has input on that, but --
11
12
13
    CHAIRMAN PADRON: Mr. Gary.
14
15
    MR. NICHOLS:
                 You know the areas that they have that aren't
16
    marked, the NMFS markers, we have been -- I was involved with it
17
    in the coral workshops that we had to identify these Staghorn
18
    and Elkhorn outcroppings, but what is really ludicrous about
19
    this thing is that they give us the coordinates and we put them
20
    in our computers on our lobster boats, but, unfortunately, the
21
    regular, everyday public can still anchor in any part of that,
22
          without having any markers, there is
    and,
                                                     no
                                                         deterrent
23
    whatsoever to do anything about the habitat, and the biggest
24
    cause of most of the tearing up of the reef is the anchoring on
25
    these outcroppings.
26
27
    It kind of kills me, because just, for instance, right in front
28
    of Tennessee Light is one of those little areas, and I plotted
29
    the coordinates out on my computer, thinking I had the right
30
    coordinates and it wasn't in there, and so that one buoy is
31
    actually mine, and it was really nice of them just to give us a
32
    little tag. There was actually four or five of mine that were
33
    in there, but I plotted them using DD.MMM instead of DD.SS, and
34
    I had to go back and look at what I was doing, and so I had to
35
    convert my computer so I had the right coordinates in there.
36
37
    Having said that, I have to tell fishermen almost everyday,
    especially between Marker 18 and Alligator Light, because there
38
39
    is a lot of area where there is little sand ridges.
                                                                The
40
    fishermen aren't absolutely fishing on the coral.
                                                            They're
41
    fishing the little sand ridges that run along the coral, where
42
    they have fished historically for years, but a lot of these guys
43
    don't speak English and they don't even have a computer, and
44
    their GPS aren't even that good, and so you're like, guys, you
    can't fish there, and they look at me and just start yelling at
45
    me. I'm like, okay, what am I going to do?
46
47
48
    They really do need to put some kind of a marker buoy on those.
```

If they want to protect the coral, they've got to -- I mean it's 1 2 all in your data. It's pretty much an easy no-brainer to see 3 that you need a buoy to keep somebody out of the spot, and you 4 certainly need to expand that to the recreational sector, 5 because you don't want those guys anchoring. At least make it a I don't care if they fish there, but we're no-anchor zone. 6 7 trying to protect coral and we're not doing a good job. 8 9 CHAIRMAN PADRON: Mr. Doug and then Josh. 10 11 When you were diving these sites, did you also MR. GREGORY: 12 groundtruth it to see if the coral was actually there? 13 14 MS. RENCHEN: Yes, we did. 15 16 MR. GREGORY : For the most part, were the areas properly 17 identified as coral areas? 18 19 Yes, they were, and so we recorded the habitat MS. RENCHEN: 20 that we found every piece of debris in, and so we have some 21 pretty fine-scale information on that. 22 23 CHAIRMAN PADRON: Josh and then Mr. Robert. 24 25 MR. NICKLAUS: I didn't catch it, but, real quick, on your pie 26 chart there, where it showed more than 50 percent was on hard 27 reef, did you do equal tows through grass bottom, sand bottom, 28 and reef, or did you do the majority of your dives on the reef? 29 30 MS. RENCHEN: The majority were in reef, but we -- Part of what 31 I have to do -- This was just a very coarse overview, and so we 32 have the exact -- We mapped the exact area for each habitat type 33 that we surveyed, but I haven't had the time weight out all of 34 that math yet, and so this is just a very coarse examination of 35 where that debris was, but the majority of the surveys were 36 actually in coral reef habitat, but some did go into seagrass 37 and sand. 38 39 MR. NICKLAUS: Okay. Thank you. 40 41 MR. MATTHEWS: If I could help, Josh, with that, we have actually done a better study that suggests that only about 1 or 42 43 2 percent of traps are fished on reefs, and so that wasn't 44 beginning to say that half the gear is on the reef. 45 46 MR. NICKLAUS: No, and I was just wondering, in your study, if 47 you took an equal survey of all different types of bottom. Ι 48 know that it's in our -- Whatever survey we get, it's a small

1 percentage that's fished actually on the hard reef. 2 3 CHAIRMAN PADRON: Mr. Robert and then you, Mr. Doug. 4 MR. GAITANIS: That was my question. I think it's the pie chart 5 here on the results about habitat, but you had 54 percent on 6 7 coral reef, but the question is what percentage of the area that 8 you surveyed is coral reef? 9 10 **RENCHEN:** That, I have to calculate. This is every MS. individual piece that we found was in -- 54 percent of those 11 pieces were in coral reef habitat. What I'm going to have to do 12 13 next, that I haven't gotten to, is map out those entire 14 transects to calculate the exact area that was in each habitat, 15 even if -- There may not have been debris there, but we have to 16 map out the entire transects to get the total area of each 17 habitat surveyed, but this is just what percent of the pieces we observed were in that kind of habitat. 18 19 20 MR. GAITANIS: So it doesn't have anything to do with the square 21 yards or miles or anything. 22 23 Right. This is just the pieces and that's it. MS. RENCHEN: 24 25 CHAIRMAN PADRON: Mr. Doug. 26 27 MR. GREGORY: Tom, I seem to remember, in the early 1990s, you 28 presenting or talking about -- When you all first doing 29 extensive underwater lobster work, you all did a survey of the 30 bottom, like extensive surveying, and you -- I seem to remember 31 you saying that you found very little trap debris, and so I'm 32 wondering what has changed between then and now, or were the 33 surveys done in different areas? Like was the early one done on 34 the Gulf side and now you're doing them on the Atlantic side or 35 what, but it's like a different impression completely. 36 37 MR. MATTHEWS: This is actually pretty consistent with the 38 published paper we have. Debris is highly scattered. For example, on the bay side, in Marathon, it's actually -- You 39 don't find much debris. It breaks down rapidly. 40 Slabs are 41 buried under the grass and sand, and so that's why when we look 42 at numbers like this -- One of those trap slabs might have been 43 there for multiple decades. 44 It might be a gorgeous piece of rock now covered with something 45 46

46 else, but what we think tends to happen is the gear slides in 47 storms until it hits something. What it happens to hit is 48 usually hard bottom or coral reef, but these numbers are fairly

consistent with the amounts of debris we've seen, and, again, 1 that study was we towed about 200 kilometers underwater, again 2 keeping track of the habitat and the debris. 3 In general, the 4 story here is that debris accumulates on the reef and not that 5 it's put there, but forces of nature generally put it there. 6 7 MR. GREGORY: One follow-up. So it doesn't break down on the 8 reef like it does in Florida Bay? 9 10 MR. MATTHEWS: I suspect a trap slab, when lost in a seagrass bed, it doesn't break down, of course. 11 It's a piece of concrete, but it disappears. It gets covered by the sediment 12 13 and overgrown by the seagrass, where, on the reef, certainly 14 there is -- Some of it becomes incorporated into the reef. 15 16 There is one sort of funny story about a control site we had 17 that after we visited there three times, we realized it was a trap slab, but it had just been so incorporated into the reef 18 19 that you literally couldn't tell anymore. Of course, the wood 20 does break down. The wire does not and the rope does not, and 21 so some of these longer-term pieces of gear would be the 22 plastics, as opposed to the wood. 23 24 MR. GREGORY: So most of this would probably be rope that we're 25 talking about. 26 27 There was a lot of rope that we observed, yes. MS. RENCHEN: 28 29 CHAIRMAN PADRON: Anything else on that? Okay. Then moving on. 30 31 DR. KILGOUR: Kari, did you want to give the -- Perfect. 32 33 SUMMARY OF AMENDMENT 11 34 35 DR. MACLAUCHLIN: I'm going to give you a brief summary of 36 Amendment 11, which you received in your briefing book, the 37 executive summary and Chapter 2 from the amendment, but I'm just 38 going to go over basically the timeline of Amendment 11. 39 40 The Endangered Species Act required a formal consultation to 41 evaluate the impact of the spiny lobster fishery on protected species, and this was triggered by the Elkhorn and Staghorn 42 43 coral being listed as threatened. 44 What the formal consultation produces is called a biological 45 opinion, and it's kind of the overview of their analysis, the 46 data that they used, and this is done by the NOAA Fisheries 47 48 Protected Resources Division, and then a conclusion about the

1 impact on all the different protected species, and then any 2 specific measures that have to be taken. 3 4 This was completed in 2009, and it included, at the conclusion, 5 that the spiny lobster trap fishery could negatively impact the Elkhorn and Staghorn coral, and it specified measures to reduce 6 the impact by closing areas to fishing and then also by a 7 requirement for gear marking for the trap fishery. 8 9 10 The Protected Resources Division had met with spiny lobster potential closed areas 11 fishermen to get input on that specifically would protect the Elkhorn and Staghorn after that 12 biological opinion came out, and this was in 2010, and then, in 13 14 Spiny Lobster Amendment 10, they included these proposed closed 15 areas, and they were only on the Atlantic side. Then there were 16 also proposed gear marking requirements. 17 18 The councils decided to allow more time for stakeholder input, 19 and so they put both the closed area action and the gear marking 20 requirement into Amendment 11. That went through with more 21 input from the fishermen to really specify areas that being 22 closed would protect the most protection for Elkhorn and 23 Staghorn, and it included sixty areas, totaling about 5.9 square 24 miles. 25 26 Then the council selected no action on that gear marking 27 requirement. What that was to do was if there was some debris 28 or line found in the coral, they would be able to identify 29 whether or not it was from the spiny lobster trap fishery, but 30 the council decided they wanted some more time to look into the 31 different ways to mark the gear, and so they selected no action 32 on that, and FWC did some studies on how a gear marking would 33 work. 34 35 It did not produce any suitable options, and so actually the 36 biological opinion was revised and that was removed from it, but 37 the closed areas in Amendment 11 to protect the Elkhorn and 38 Staghorn coral, those were effective in August of 2011. 39 40 CHAIRMAN PADRON: Do you have more, Kari? 41 42 DR. MACLAUCHLIN: I'm sorry. They were implemented in August of 43 2012. That's all I have. I just wanted to do a quick summary 44 of those. 45 46 CHAIRMAN PADRON: No problem. You just looked like you were still looking at your computer. Do we have anything else on 47 48 Amendment 11? Then we will move on to the coral habitat areas.

2 REVIEW OF GULF CORAL HABITAT AREAS OF PARTICULAR CONCERN 3 4 DR. KILGOUR: I have a long history to go through. You had 5 several briefing materials on this, the first of which was the Joint Coral SSC/AP Summary. The Coral SSC and AP met together 6 and came up with a list of different areas of where they think 7 the council should consider creating habitat areas of particular 8 9 concern, and I'm going to go through those in this presentation. 10 11 I also have provided you all with the coordinates for all forty-12 seven areas that they recommended. It's online and there are 13 printouts back there as well. 14 15 In May of 2014, the two groups met, and they were evaluating the 16 new HAPC and existing habitat areas of particular concern, and 17 so we have several in the Gulf of Mexico, habitat areas of 18 particular concern, that have no regulations. They're just 19 labeled as these HAPCs with nothing associated with them. 20 21 Since their establishment, and I think most of them were done in 22 2006, there have been several research cruises that have been conducted that have led to new coral discoveries and new coral 23 In December of 2014, there was a working group convened 24 areas. 25 to discuss these potential areas and bring new science to the 26 Only areas that had corals present were considered for table. 27 new coral HAPCs, and so these aren't based on modeling efforts. 28 These are based on known presence. 29 30 The Coral SSC and AP met again in 2015 to look at the working 31 group recommendations and make their own recommendations. At 32 this meeting, we had invited two royal red shrimpers and two 33 commercial shrimpers to help discuss, because when I looked at a 34 lot of these areas, it looked like the shrimping community would 35 be affected, and so they were able to weigh in on a lot of these 36 areas and what needed to be reviewed. 37 38 Forty-seven new and existing areas were identified by these 39 The coordinates were provided to everybody ahead of groups. time, and I have done that with every meeting. Members from the 40 41 royal red shrimping community and Shrimp AP participated, and 42 boundary revisions were suggested to refine several areas that 43 had a lot of shrimping interactions. 44 45 The current HAPCs and sanctuaries and reserves that are in the Gulf of Mexico that have regulations are about 1,200 square 46 47 nautical miles. The boundaries for the proposed new coral HAPCs 48 are about 900 additional square nautical miles, and so that 900

1

includes HAPCs with no regulations. There are, I think, six or 1 seven, or maybe it's thirteen, and don't hold me to that, but 2 HAPCs with no regulations, and the areas, again, were selected 3 4 based on known coral presence. 5 These are the existing HAPCs and reserves. 6 The Florida Middle 7 Grounds, the East and West Flower Garden Banks and McGrail Bank, 8 Madison-Swanson. I think the only one that really affects 9 lobstering, based on the VMS data, is Pulley Ridge. There is also Steamboat Lumps, Stetson Bank, the Edges, and the North and 10 11 South Tortugas. 12 13 The existing HAPCs with no regulations, the areas that are 14 included in the nautical miles in the middle are what are currently on the books. The Coral SSC and AP have recommended 15 16 boundary revisions, because they feel that some of these areas 17 are too large and they're encompassing more than just the coral areas that need protection. 18 19 20 Pulley Ridge, in particular, the existing HAPC with no 21 regulations is something like 2,000 square nautical miles. 22 They're only suggesting that the existing Pulley Ridge with 23 regulations be extended a couple hundred more nautical miles. 24 25 I am going to go really quickly through South Texas Banks, 26 because I don't think anybody in here is affected by them. 27 There is a lot of small coral reefs off of South Texas and also 28 in the northwestern Gulf of Mexico. This is where pretty much 29 the concentration of areas were. There is a lot of salt diapirs and coral mounds in the northwestern Gulf of Mexico, and then 30 31 these are all significantly deeper. When I plotted the shrimp 32 data, the shrimp ELB data and the VMS data, pretty much nobody 33 through these areas, with the exception qoes of maybe 34 transiting, but they're not fishing in these areas. 35 36 The northeastern Gulf, if anyone is familiar with the Pinnacles, 37 all of these small areas are within that Pinnacles area. Again, 38 many of these -- This whole workshop and the working group and 39 the Coral SSC, they were focused on deepwater corals, which are 40 corals that are typically below 150 meters, and so these are in 41 deep waters. 42 43 Then here is the money area for you guys. It would be Pulley 44 Ridge and then there are some areas that were identified by the Okeanos Explorer and by -- I am having a mental blank right now, 45 but by a researcher down at Harbor Branch. 46 47 48 AP MEMBER: John Reed.

1 2 Thank you. By John Reed. It was not coming to DR. KILGOUR: 3 me, but as being coral areas. The Coral SSC and AP recommended 4 that they reincorporate deepwater octocorals into the fishery 5 management unit. Right now, the octocorals are not part of the fishery management unit for the Gulf of Mexico. 6 They were 7 delegated to the State of Florida a while ago. 8 9 They also recommended to initiate an amendment to designate new coral HAPCs and redefine exiting coral HAPCs. 10 Fifteen of the 11 forty-seven proposed areas need boundary revision, and the remaining thirty-two areas have boundaries recommended by the 12 13 coral working group. 14 15 There were two areas that were identified as potentially having 16 interactions with royal red shrimpers, where the royal red 17 shrimpers were not actually shrimping on the coral reefs, but they were pulling up their gear and would, therefore, drift over 18 19 the boundaries of where these areas are, and so they thought 20 that maybe a potential exemption for pulling nets over these 21 reefs would be appropriate, because we're talking about really

deep water, and so they're not actually trawling on the ground, but it just takes a while to get their nets back on the boat. They also recommend that there be a joint meeting between the Coral SSC and AP and the Shrimp SSC and AP.

This was presented to the council in 2015, and the council made a motion to instruct staff to convene a meeting of the appropriate coral scientists, along with fishery stakeholders, to review potential coral HAPCs. Specific fisheries and gears that were mentioned were reef fish, shrimp, lobster, and bottom longlines.

33

43

26

34 Since all of this has gone down, since some areas have been 35 identified as needing boundary revision, I have done a little work using the shrimp ELB data to refine things, and I just am -36 37 - I should have made this even smaller, but a lot of these areas have really big boxes associated with them, but if you actually 38 39 put the footprint of where the shrimping goes and where the actual mounds of the coral are, you can redefine the boundary, 40 41 so that you're protecting the coral and not affecting the 42 shrimping, and so that's something that is ongoing.

I wanted to really draw your attention to Pulley Ridge, because when I did plot the VMS data, this area was pretty much the only area that had a lot of lobster VMS going over the top of it, and what they were proposing was there is apparently a lot of corals that are to the northwest corner of this Pulley Ridge area that

1 John Reed felt warranted protection. They also found a lot of 2 spawning red grouper there. 3 4 What I am bringing here to you is -- This is a proposal that has 5 not been turned into an amendment. The council is still considering it, but if you have input on some of these areas, 6 7 should they be reconsidered or do we need more information from 8 your fishery, that would be wonderful, if you could alert me to 9 that. 10 11 The council members do want me to convene the Shrimp AP with the Coral SSC and AP, and so that meeting is in the process of being 12 13 planned right now. We have two potential dates. It looks like 14 it will be happening in July. 15 16 This same presentation was given to the Reef Fish AP, and they 17 made -- I am going to pull up the summary, so I can see the 18 verbatim motion. By a unanimous vote, the Reef Fish AP recommended to the council that they form a working group of 19 20 coral scientists, charter, recreational, bottom and vertical line commercial fishers to identify new and existing coral areas 21 22 that need boundary revisions. This is, again, an ongoing process, and it hasn't even made it to the amendment stage yet. 23 24 With that, I will take any questions. 25 26 CHAIRMAN PADRON: Go ahead, Mr. Bruce. 27 28 MR. IRWIN: Is that Pulley Ridge area, is that -- It's closed 29 now or it's proposed to be closed? What's the status of that? 30 31 DR. KILGOUR: Thank you. I wasn't very clear about that. Maybe clear as mud. There is two Pulley Ridge areas. This large box 32 is actually considered an HAPC, but there aren't regulations. 33 34 This small little pie-shaped thing, that actually has fishing 35 regulations of no bottom-tending gear, traps, anchors, by 36 fishing vessels. 37 What their proposal was, it was to extend that area just a 38 39 little bit to the south and northwest. You can access all of this on the council's portal that I've given you guys all the 40 41 link to in multiple emails, and it's portal.gulfcouncil.org, to 42 get a zoomed-in version of this, but that -- When I did do the 43 lobster VMS, there was significant track lines through that 44 area. 45 46 MR. IRWIN: How many feet of water is that, approximately? Do 47 you know? 48

1 DR. KILGOUR: It's deep water. 2 3 CHAIRMAN PADRON: With those VMS that were going off, were those 4 from fishermen that were actually lobstering at the time or were 5 they just maybe doing red grouper trips? 6 7 DR. KILGOUR: That's a good question, and that's not something I 8 can -- From the VMS data that I was provided and that they give 9 out, and I don't even know if they know. All I can get are the permit type and the tracks, the points of the tracks. I can't 10 11 tell if they were sleeping on the boat and drifting. You can't 12 tell. 13 14 CHAIRMAN PADRON: Mr. Doug, go ahead. 15 16 MR. GREGORY: For those of you that fish Key West, and, Richard, 17 I know your family fishes to the west, when the southern part of 18 Pulley Ridge was closed -- We're curious if it actually impacted 19 any of the trap fishermen and how and what any enlargement 20 proposal of that closure -- How that would impact the trap 21 fishermen. 22 23 We fish mainly the Dry Tortugas. We haven't been MR. DIAZ: 24 down that far in a couple of years, and so I don't know what the 25 future has got to hold, but it's better there than in the Fort. 26 They're going to take bottom no matter what. I mean, right now, 27 it doesn't affect us, but I'm sure it affects some lobster 28 fishermen, yes. 29 30 Because I know in the 1990s that there was a MR. GREGORY: 31 significant number of the Key West fishermen that fished way to 32 the west and to the north. I know the Blue Jillian -- I forgot 33 the guy's name, but he went all the way past Naples up the 34 continental shelf edge looking for lobster, and maybe as far as 35 Tampa at one point. 36 37 Then, in the late 2000s, with the total prohibition on fish traps, that lobster fishery kind of went away, for the most 38 39 part, because the -- The way the Goins family told me is they needed fish trapping and lobster fishing to make those trips 40 41 worthwhile, and I understand there's still a few people fish out there, and we're just trying to get a handle on who it impacts. 42 43 44 We know that the lobster fishery doesn't have to have VMS, and 45 so there must be people that have Gulf reef fish permits that are also lobster fishermen, and we just don't know what they're 46 47 doing. 48

1 MR. DIAZ: Yes, they've got the Gulf permits for the grouper, but we -- Like I said, we're mainly in the Dry Tortugas area, 2 and Pulley Ridge, to us -- I mean if they want another hundred-3 4 and-whatever miles, I don't really mind, and so whatever they 5 want to do. 6 7 CHAIRMAN PADRON: Do you know anybody else who fishes out that 8 way that you can think of? 9 I don't know exactly. Everybody tries to keep their 10 MR. DIAZ: fishing spots secret. I'm sure people still go out there, but, 11 back to what Doug was saying, my dad went out there twelve years 12 ago and they fished them practically up north to Tampa there, 13 and those fish that were there were old fish, big, seven or 14 15 eight-pound lobsters, and they literally fished there for like 16 three years. They don't migrate through there. 17 18 When they went back, they were depleted to the point where it's not profitable for what they were catching. 19 That's why the 20 people were saying that if it wasn't the fish traps, then it's 21 not profitable for them to go. 22 23 Does anybody know how far west of the Fort this MR. BURTON: 24 Pulley area is, approximately? 25 26 CHAIRMAN PADRON: You would have to ask Richard or somebody 27 else. I have never gone that far. Go ahead, Mr. Gary. 28 29 (The comment is not audible on the recording.) MR. NICHOLS: 30 31 CHAIRMAN PADRON: That's fifty or sixty miles west of the Fort, 32 right? 33 34 MR. NICHOLS: West of the Fort, yes. I was kind of waiting for 35 Richard to get done telling me where he's fishing, but something 36 that's been of great concern to the fishermen in the Upper Keys 37 or the Middle Keys here is where is our spawning stock coming from, and we had this great spawning stock, because I used to 38 39 buy -- When I first bought my fish house in Conch Key, I used to buy a lot of lobster out of Key West, from Goins and those guys 40 41 and Larry. 42 43 Larry used to sell me a lot of fish, and he had the boat the 44 Shogun down there. He sold me the six to eight-pound lobster, and I had a really good market for sixteen-ounce lobster tails, 45 but every time I tailed those lobster, it didn't matter -- He 46 brought me the tails on a lot of them, and I wanted a lot of the 47 48 whole, fresh lobster, but just about every single female lobster

that I had, and it didn't matter what time of the year it was --1 2 It didn't matter if it was January or February or March or 3 whatever, but they were all egg-bearers, and they were internal 4 egg-bearers. 5 It really bothered me, as a fisherman, that we were fishing our 6 7 spawning stock, and they were all big lobster, which even with -8 - All the data suggests it is our spawning stock, and it 9 produces a whole lot more lobster than our one-pound lobsters. 10 11 If, for some reason, they're not fishing the area out there, it would be very beneficial for the rest of the whole entire 12 13 lobster fishery to go ahead and close an area for that kind of a 14 fishery, but I certainly don't want to step on somebody's toes. 15 It may be a grandfather thing or granting use for that area, but 16 it's something that I have really been a proponent of and talked 17 about at a lot of meetings, to try to get a mechanism to do something about that, but I certainly don't want to step on a 18 lot of toes, and so I'm really glad to hear what Richard is 19 20 saying. 21 22 CHAIRMAN PADRON: Mr. Tony. 23 24 MR. IAROCCI: Thank you. Ronnie Barron and a couple of the guys 25 up the west coast -- They moved out of Marathon, and, if you 26 remember, Sergio Valdez and Carlos Valdez fished out there too, 27 to the west, and found some bottom. A couple of years back, 28 Tony Ponden made a trip out there with one of the big green 29 boats, and they found some bottom up there. 30 31 To your point, Gary, they had found an area where they had set those big traps of theirs and they said they came up chockablock 32 full with small lobsters that had just went through the stages 33 34 of growing, and so he did say that he thinks that there is an 35 area out there that is a nursery area, where these lobsters are 36 settling. 37 38 Morgan, isn't that whole area -- Didn't it get a lot of comments 39 from Bobby Spaeth and the group of fishermen up from Madeira Beach and the west coast fishing it? Don't they fish around 40 41 that area? 42 43 MR. GREGORY: No, we haven't, because Bobby is not on the Reef 44 Fish AP right now. In fact, we don't have any of the longliners from the southern Gulf, and I talked to Bobby last week. 45 He just happened to call to see what was going on, and I told him 46 what we were doing, and he said at any time that he can pull 47 48 together a handful of longliners from Madeira Beach and meet

with us, Morgan, and go over that. 1 2 3 I think it might be worthwhile for us just to make a special 4 trip to Madeira Beach without a formal AP meeting or whatever 5 and just go talk to them and see how it does impact them, because the coral people that have been doing diving out there, 6 7 it's just some fascinating -- They've had a lot of money in the last four years to really research that area, and what they're 8 9 finding is -- The thing that's fascinating them is the red grouper holes that have been carved out in this hard bottom. 10 They're equally spaced about 300 feet apart, just like dots on a 11 12 piece of paper, and it must be like the home range of the red 13 grouper. 14 15 It's just incredible, but the coral biologists, not being 16 population dynamics or fisheries managers, go, oh my god, we've 17 got to save this area and this is special, but, once we talk to Bobby and them, we're going to find out that area has always 18 19 been fished. I mean it is prime grouper habitat. It's just 20 amazing. 21 22 We are going to reach out to them, and, later this year, we're going to meet with the shrimp fishery again, because they're 23 24 very concerned about some of the areas in the northern Gulf. 25 26 We don't have an amendment process in place, but you know down 27 here the Sanctuary is looking at some of these areas, and so we're just kind of on a similar parallel trajectory by looking 28 29 at all the coral areas throughout the entire Gulf, and so we 30 will be talking to the longliners, and Bobby is already aware of what we're doing. 31 32 33 CHAIRMAN PADRON: Anybody else have anything to say about Pulley 34 Ridge or any of those deepwater areas? Is there any other business that anybody wants to bring up now? I've got Mr. Ben 35 in the back and then Mr. Tony. 36 37 38 OTHER BUSINESS 39 40 I had a question about how you all want to be MR. HARTIG: 41 involved in this review process. I can think of two different 42 ways you could do it. You can have your chairman of each AP be 43 on -- You know we could put you on the review group. That's one 44 way we could do it, or we could bring the whole AP together 45 prior to -- If you have three years of low landings, that's going to initiate that review. We could bring you together 46 before they get together, to get your input on possible 47

117

environmental, hurricane and things of that nature, effects.

Think about that. What direction do you think you guys might 1 2 want to go on that? I think your input is going to be critical 3 to that review. 4 5 CHAIRMAN PADRON: I would say, me personally, I would rather see the AP get together, because I can't comment on what is taking 6 place in Key Largo. I can't make an opinion on what's happening 7 8 west of the Dry Tortugas, and so I think input from the Keys 9 fishermen and all of Monroe County, whether they're north, south, east, or west, I think all input would be good, but Mr. 10 11 Bruce and then Mr. Gary. 12 13 MR. IRWIN: How is it structured now? The review panel meets 14 and then the AP meets or -- Do you know, Kari? Do you know how 15 it's structured now? Is it the review panel meets and that automatically triggers the AP? 16 17 18 MR. GREGORY: Who is on the review panel? 19 20 MR. IRWIN: It's here. It's a good section of people. 21 22 MR. GREGORY: A representative from each of the APs, plus staff. 23 The review panel is an odd concoction. It was done just to say 24 let's review this, but I would actually prefer that the review 25 have a review process, have it go through the APs and have it go 26 through the SSC, like we do with everything, and then go to the 27 council. 28 29 The review panel, you know we had trouble last year. I was 30 running it. It was made up of staff from NMFS and the councils 31 and the APs and SSC, and I didn't want to vote, because it was 32 such a diverse group of people coming from different angles, and 33 so I tried to have decision making by consensus, and one or two 34 people just wouldn't agree to things, and so it didn't work. 35 The webinar we did this last time, we actually voted and got 36 37 some things passed, and so, for me, it was an awkward process 38 from the get-go, and I would much rather use the system we've 39 had for years, which is the AP and the SSC and the council, but 40 it depends on what, I guess, the lawyers tell us in how we 41 structure it, but clearly it would have AP members on it, the 42 Chair and the Vice Chair from the two APs, for starters, and 43 then we can always come back to the AP if we want. 44 45 CHAIRMAN PADRON: Go ahead, and then it's you, Mr. Tony. 46 47 MS. BADEMAN: Jessica, you might remember this, but when we set 48 up these review panels, we didn't have -- We knew that there was

going to be a panel. It was an accountability measure, but we 1 2 didn't actually populate it until after we had this trigger occur, and I think the list came from the councils. 3 Is that 4 right? I can't remember exactly.

MS. MCCAWLEY: Yes, we were just discussing it. Kari and I were 6 7 just discussing that, about how we populated the panel, because 8 the review panel has staff of the council on it as well. It's 9 an interesting mix of people, and it was a little unclear to me what their direction was, and so I'm wondering if, just like 10 Doug was saying, is there needs to be a process spelled out 11 about how to do this and not just meet this panel, but maybe 12 kind of some steps in the process that involve the AP as well. 13

15 CHAIRMAN PADRON: Mr. Tony.

16

14

5

17 MR. IAROCCI: Thank you. Doug, and I am going to go to Daniel's point. I look around the room here, and I see a lot of varied 18 19 interest when it comes to spiny lobster, whether it is from Key 20 Largo, whether it's from Key West, whether it's a recreational 21 diver here or another state or whatever we're talking about. 22

23 I think, when we're looking forward to the review panel, and to 24 Ben's point, I think it should start with the AP input, similar 25 to what they do at the council level, because we're looking at a 26 review and we're looking at management. We start with the AP 27 input and then let that go to the review panel.

28

38

42

29 Once the AP starts, we can go to that, but definitely we need AP 30 representation at the review panel before it goes to the council 31 and to the SSC, because the recommendations come from here and -32 - I think we did it backwards this time in getting with the review panel, but I agree that I think it worked out okay on our 33 side, but I think they would like to hear from us first, 34 beforehand, because I've been a proponent of the AP process 35 36 since my first membership on an AP. That's the way to do it, to 37 get input from the locals first.

39 DR. MACLAUCHLIN: What the review panel is recommending this year does require SSC -- That has to go through the SSC, really, 40 41 for the councils to change anything.

43 MR. IAROCCI: Also, if I may pose this question to the sitting 44 council members and staff, how do you see where we could make this thing easier and more communication, how this thing would 45 be working easier on all parts, because a lot of you guys are 46 47 going to be the ones taking this ball and running with it once 48 we give you a little bit of input.

2 How are we going to move this forward with the two councils and NMFS and the SSC and in the future? Let's say we do have a 3 4 review. Hopefully we can, by the time this does get to the 5 councils, this can be tweaked a little bit, so we know exactly what we're proposing, and I mean once you guys get back, you're 6 going to address a lot of these issues and put it forward, and 7 8 so -- Like I said, we've done this a lot of times, and so we're 9 looking to you guys for guidance on this. If you think something is wrong, tell us, so we can move forward in the right 10 direction. 11 12

13 MS. BADEMAN: I think you guys are on the money with having the 14 AP get together and talk about something if we hit this trigger 15 again, because something clearly would have changed in the 16 fishery, whether there is some kind of -- I guess we talked 17 about excluding hurricanes, but something going on that's affecting landings or people aren't fishing or whatever, and so 18 19 that's a reason for me to get the AP together. Then we can get 20 the SSC together and provide their perspective and then go to 21 the councils, I'm guessing.

If that happens, it's possible that the councils could just decide that the review panel is the AP, get the APs together. I guess maybe it depends on the circumstances and what maybe we think is going on, but I would certainly personally value AP input.

MS. MCCAWLEY: Yes, I agree with Martha. I would like to get the AP back together to hear what they have to say and see what they're seeing, understand what they're seeing, in the fishery, just so that we know and can understand, and I also think, Martha, on the Gulf, I think you guys have a special Lobster SSC, but the South Atlantic doesn't have anything like that.

36 CHAIRMAN PADRON: Mr. Tony, go ahead.

38 **MR. IAROCCI:** Tom, can I pose that same question to you? The 39 way things are moving forward with this, do you see anything out 40 of the norm or something you think should be changed, or are you 41 pretty happy with what's going forward?

42

22

28

35

37

1

43 MR. MATTHEWS: I am sort of fine with the move right now to 44 worry more about low landings than high landings. We are very 45 much sort of into a personal philosophy versus damage to the 46 fishery. The fishery has gone along for many years. It's a 47 good fishery. It's not going to collapse. 48

There are things to make it a better fishery. Lower some of the 2 mortalities would be the biggest issues. None of those are 3 really what we're talking about today, and so, as far as taking 4 action on the ACL, yes, I'm good with how this group is going 5 along. 6 7 MR. IAROCCI: To that point, I am tickled to death that we 8 focused on the ACL and the ACT and dealt with that. I mean we 9 did go through other presentations, but the priority was -- Dr. Crabtree called me and said to please focus on the ACL and don't 10 get off track and start talking about all of this other stuff. 11 12 We need to deal with this. 13 14 I think everybody in this room today did a hell of a job dealing 15 with that. Granted, we dealt with some other issues, and I --16 Always you will see that dividing line between recreational and 17 commercial, but I think today we talked about it a little bit and we saw that we're all on the same page. 18 19 20 This is, and I think you stated it, Robert, but this is 21 everybody's resource. It's not commercial and it's not 22 recreational. We all have a bone in this fight as a dog, so to say, and we all have to deal with this the same way. 23 This is but we represent -- Everyone in this 24 our fishery, room 25 represents other people when we deal with this stuff, and so we have to move forward together, and I think we've got a good 26 27 consensus and some good ways to move forward. 28 29 Ben, I think you've helped, and I've always looked to you. 30 You've been one of my early mentors through this whole process. 31 As long as you can get back and Jessica to the South Atlantic 32 and Doug with the Gulf, I feel great. I think we had a good 33 meeting and good input, and I just hope if you have any other 34 questions, please call us and let us know. 35 36 CHAIRMAN PADRON: With that being said, are there any more 37 questions or topics for discussion? Do we have a motion to 38 adjourn? Do we have a second? All in favor. 39 40 (Whereupon, the meeting adjourned at 4:05 p.m. on April 25, 41 2016.) 42 43