

**SOUTH ATLANTIC FISHERY MANAGEMENT COUNCIL**

**SPINY LOBSTER ADVISORY PANEL MEETING**

**Reefhouse Resort & Marina  
Key Largo, Florida**

**June 29, 2022**

**Transcript**

**Advisory Panel Members**

Gary Nichols II  
Mimi Stafford

Justin Smith  
Mickey Whittington

**Council Members**

Chester Brewer  
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Myra Brouwer  
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Nick Smillie  
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Cindy Chaya  
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**Attendees and Invited Participants**

Kristin Foss  
Chip Garber  
Brent LaChapelle  
Beb Sebastian

Cindy Garb  
Frank Helies  
Nikhil Mehta  
David Warner

The Spiny Lobster Advisory Panel of the South Atlantic Fishery Management Council convened at the Reefhouse Resort & Marina, Key Largo, Florida, on June 29, 2022, and was called to order by Ms. Christina Wiegand.

MS. WIEGAND: All right. Thank you, guys, for coming out. As you know, Bruce Irwin, the Chair, unfortunately couldn't be here today for the meeting, and we don't currently have a Vice Chair of the Spiny Lobster AP, and so you all are going to have to suffer through with me working to run this meeting, and so apologies in advance, but I will go ahead and get our agenda up on the screen.

I thought one of the first things we would do is go ahead and give introductions. I'm Christina Wiegand, and I'm the staff Social Scientist and the lead for the Spiny Lobster FMP at the South Atlantic Council. I'm the one that's been haranguing you, via phone and email, to get to this meeting, and so let's just briefly -- Going around the room, and we'll start over here with you, Mickey, and you can introduce yourself and tell everyone where you're from and how you participate in the fishery.

MR. WHITTINGTON: My name is Mickey Whittington, and I'm from Jessup, Georgia. I'm a scuba diver, and I'm trying to keep our seasons the way they've been for years in Georgia, and I look forward to meeting today.

MS. STAFFORD: I'm Mimi Stafford, and I've been a commercial fisherman in the Keys since the early 1970s. I used to be a recreational fisherman also, starting in the early 1960s, and so I have a lot of history down here. I love the Keys, and I would love to see my grandchildren now enjoy a little bit of what I got to see, and so I'm looking forward to working with the committee.

MR. SMILLIE: I am not on the Spiny Lobster AP. I'm the Digital Communications Specialist at the council, and I just started a couple of months ago, and so, if you guys have any technical difficulties or anything, I'm your guy. I'm Nick Smillie. You can just call me "Smillie". That works. Thanks.

MR. SMITH: I'm Justin Smith from Wilmington, North Carolina, and I'm primarily a recreational diver and fisherman, and I dabble a little bit in the commercial stuff, but that's pretty much it. I'm pretty new to the council, and so I'm looking forward to having some input and helping out.

MR. NICHOLS: Hi. I'm Gary Nichols, and I'm a commercial fisherman out of Lower Matecumbe Key, and this was my fiftieth season, believe it or not, and it seems like I was a young boy just yesterday, but I'm starting to kind of feel my age, a little bit this year more than usual, but we have had the largest lobster and stone crab business in the United States for quite a while. We fished almost -- A little over 7,000 lobster traps for the last probably thirty-five years. It's a family business. My sons, my sons-in-law, and my daughters both participate in the business. My wife and I started the business when she was fifteen and I was sixteen, and my dad is here with me, and he started the business with us also, just diving and having fun spearfishing and commercially selling our products, and that's how we started our business, but, anyway, long story short.

MR. DEKLE: I'm Scott Dekle, and I'm the new Vice President at Keys Fisheries in Marathon. I was the person hired to come in and do the job of Gary Graves. You can't replace him, and so you

just come in and try to do what he used to do, but this is my first visit here with the council, and I look forward to working with all you folks over the next few years.

MS. WIEGAND: All right, and we've also got the Chair and the Vice Chair of the Spiny Lobster Committee for the council here, and so I'm going to let them both sort of stand up and introduce themselves.

(The comments are not audible on the recording.)

MS. WIEGAND: All right, and so, with that, I'm going to turn it over to Jessica to give a few remarks before we get rolling through our agenda.

MS. MCCAWLEY: All right. Christina put together this nice presentation here, and I think we're going to kick some things off, and so just why are we here, and we're here because the council is now convening meetings of their advisory panels once a year, so it's not like something is looming out there, and this is what the council is doing, and, at these annual meetings, the council is trying to make sure they have the most up-to-date information on their fisheries and address any issues that arise in a timely manner, and so I'm looking forward to the discussions that you guys will have today.

Also, the council is now doing fishery performance reports. I don't feel like I'm the best person to explain the fishery performance report, but it's gathering up-to-date information about the fishery and compiling it in one location, and the council members really use this when they're trying to make decisions and they're thinking about what management actions to take, and sometimes they have what appear to be basic questions about the fishery, and they need to jog their memory, and so, by you guys giving us up-to-date information for this fishery performance report, and I think these live on the website, and is that right, Christina? So you guys could go back and look at it.

We, as council members, can go in there and look at it, but it's super helpful for us to have this up-to-date information, and then another thing that you guys might want to talk about a little bit today is so the Florida Keys National Marine Sanctuary -- They're going to be releasing their next plan, next draft rule, next round, on July 12, and so I'm hoping, at some point, we can bring this group back together, maybe with the Gulf AP, to talk about what's in the blueprint, but a reminder that one of the items that was passed by the councils, a number of years ago, and it looks like early 2020, is the date that Christina has up there, and it's about the sixty lobster areas that are in federal waters throughout the Keys to help protect coral.

One of the things that the FWC commented on, in the sanctuary blueprint, was going back and looking at those sixty lobster areas, and are they in the right place, should some of them -- Maybe they're not really over the largest coral colonies, like we thought they were, or maybe something has happened to those particular coral colonies, and so maybe some of them we don't need, and maybe there is some other areas we do need, and so I think that this is something that we're hoping that the AP, not necessarily at this meeting, but can work on in the future, is talking about those sixty lobster areas and just kind of rethinking them. Are they doing what was intended, or do we need new ones, or do we need to move them?

Then Christina has a bullet on there about how hopefully the APs will come back together and discuss the blueprint, after it's released, and then the council itself will have a special webinar council meeting in August to discuss the blueprint, and so there are some items that FWC is working on.

We have a number of FWC staff here that we can talk about, and so, after you get finished with your fishery performance report and other things that you guys want to talk about, we can talk to you about some things that FWC is considering for rulemaking, and so we have been working on some marking requirements, and we've been working on degradable panels, and so the council took an action, a few years ago, to change up the materials for the degradable panels, and the FWC needs to go consistent with that in state waters.

Also, FWC is looking at a trap puller prohibition for recreational vessels. We could talk about that a little bit, and I know something that you guys had been concerned about, in the past, was the definition of "working" and what it means to work traps and when you can actually work those traps.

Another thing that you may have heard is that our commissioners have discussed casitas a little bit, and we haven't really gotten down into the weeds on this issue, but I figured that, if you guys wanted to talk about that, and ask us questions about what the commission had been talking about, we can certainly inform you of those discussions. I would like to say it's in the early stages, and it's not like we have a rule or anything ready, and it would need a significant amount of work before we could bring anything forward, and so I figured you guys might want to talk about that.

I already mentioned that the sanctuary is going to have the release of their plan on the 12<sup>th</sup>, and myself and C.J. Sweetman will come back down here, in the Keys, to meet with folks in August, and so we can meet with some of you guys then, and we try to meet with the heads of various organizations, to kind of hear where they're coming from on the plan, before FWC finalizes their comments on the plan.

Also, another thing that you guys have been interested in in the past is what is happening inside Biscayne National Park and what regulations they may be considering, and so FWC recently had a meeting with the park, and one of the things that they are asking the FWC to consider, and we can certainly get into more detail on this later in the day, is there is a very small area in the park, the Lagare anchorage, and there is a shipwreck there. I

t's a shipwreck that actually belongs to the U.K., and there is a treaty between the U.S. and the U.K. about this particular shipwreck, and they are wanting to prohibit traps in this smaller area, partly because it seems like traps are getting blown in there, and apparently they can do damage, and maybe have done some damage, to the shipwreck. I have a map, just one copy of this map, but we can look at it, and we can probably pull up a map online of what that is, and I would love to hear your comments on that, and so that's kind of all I have for you.

I will be here all day. We have our lead lobster biologist for the FWC, Tom Matthews, here today with us, and some other folks that work on lobster, and another person from the Division of Marine Fisheries Management that's based down here in the Keys that are here to help answer questions and help you out any way we can today. Thank you, Christina.

MS. WIEGAND: All right, and so, like Jessica said, we've got just a couple of things on the agenda today. We'll have you guys complete that fishery performance report, and then we've got just a sort of small attachment that details what has been happening with the Spiny Lobster Amendment 11 areas, those sixty closed areas, and the map that we can pull up, to sort of show you where they are, to have a bit of discussion.

It is time -- We've had three meetings in a row where Bruce has been Chair, and so now it is time to elect a new Chair and Vice Chair, and so that will sort of wrap everything up for the main business, and then, like Jessica said, we can sort of open it up and talk about those FWC issues that she just talked about, or anything else that you guys would like to have a discussion on related to the spiny lobster fishery. I will pause, to make sure there aren't any questions about the agenda itself.

Seeing no one with concerns, the next order of business would be public comment, and so, if there's anyone in the room who would like to make public comment, speak up, or, if you're on the webinar and would like to make public comment, just raise your hand. It's that little turkey-looking symbol that's on your screen. All right. Seeing no one jump up in the room, or put their hand up online, we'll dive right into the fishery performance report.

There is a series of questions that I'm going to go through, but, before we do that, I wanted to go over the website. I wanted to just briefly run through some of this background information that was prepared by Dr. Chip Collier at our office, and it sort of briefly summarizes the life history of spiny lobster. You can see, in this graph below, that sort of the growth rates of spiny lobster are fastest at these smaller sizes, and you've got the weight here, in pounds, and then the age of the lobster here, and you can also see, in this second graph, that, once they reach maturity, at about four inches carapace length, that growth sort of really stagnates.

Here, you've got landings over the last few years, and this is total recreational and commercial landings, and, as you can see, you've been well below the overfishing limit. You will see a couple of years without any data, and those are simply years where, due to hurricanes or other sort of extraneous issues, we were unable to estimate recreational landings.

I am scrolling through this pretty quickly, but it is, again, linked on the fishery performance report questionnaire, and so you should all be able to pull it up, and, when we get to the questions, we can always circle back to this website to review information, if you guys would like. Here, you can see, again, the proportion of commercial to recreational landings over the last few years, and, again, those years where you aren't seeing any recreational landings, it doesn't mean there wasn't recreational fishing that year, but it was just that we were unable to estimate recreational landings, due to hurricanes.

I will scroll down to the next one, and this is commercial landings only, and it's broken up by different gear types, bully gear, diving, and trap gear, as well as sort of other or unknown gear, and, as you can see, while landings have fluctuated, the proportion between these gears has stayed relatively the same, with perhaps a slight increase in the use of bully nets over the last few years.

Last, but not least, this is the average price for spiny lobster over the last few years, and, again, it has fluctuated quite a bit, and here's your ex-vessel value. Then, like I said, we also have, in here, an interactive map. We'll give this a moment, but, when it loads, it will be an interactive map of

those sixty closed areas that are down in the Florida Keys, and we can circle back to this. There we go. We can circle back to this, once we start talking about those sixty closed areas, but you can see them all along here in this map, by number.

With that, I will bring us back over to the questionnaire. Again, while we're talking about these questions, please let me know if you would like to circle back to that website, and so, as Jessica was talking about earlier, we're completing these fishery performance reports, and the hope is to sort of have every AP do them once a year, once every few years, depending on the size of the fishery management plan.

For Spiny Lobster, it's just spiny lobster, and so it's very easy to sort of complete these and update them yearly, and this information is then used to complement the scientific information that we have, with the understanding that scientific information is great, but, oftentimes, it's not painting the entire picture of what's going on in the fishery, and, with you guys being out on the water every day and interacting with these species, you're really sort of our first line of defense, if there's something going on in the fishery that managers need to know about, and possibly address, and so we want to be able to conduct these with you guys, so that we can get that information and make sure that it's used to inform the decisions that the council is making.

With that, I will just sort of bring us to our first question, which is fairly broad, but should hopefully help kick off and encourage discussion, but have you guys seen substantial changes in the spiny lobster fishery over the last five years? If so, sort of when did you begin to see those changes, and what do you think is causing the changes you're seeing in the fishery?

MR. NICHOLS: Well, in the last five years, we've seen a significant change in the lobster fishery, obviously, since we had Hurricane Irma. We had a total disaster on our hands, as far as something we've never seen in my fifty years. I had over 5,500 of my traps destroyed, wiped out, pretty much non-functionally able to fish, and so we had to go through -- You know, being a fisherman, and somebody who has got family and has been -- You know, loves the water, and loves what we do, the habitat took a real beating.

We have seen increased algae blooms that we had never seen before, a lot of habitat loss, but, right in the beginning, but what has kind of been interesting is, in the last two years in particular, we've seen a very big uptick in the amount of small lobsters, and probably the overall lobster population. Right after the storm, the year after, which I think was the 2018-2019 season, it was kind of a dramatic drop in the catch, I think due to the loss of the lobster through the storm itself, but I think we're seeing a rebuilding cycle.

The last two seasons, toward the end of the season, when the lobsters migrate offshore, into the deeper water, I don't -- You know, I have seen more small lobsters, and more abundance of lobster, than I have seen probably in twenty-five or thirty years, and so that's kind of an encouraging thing that we have going on. As far as it goes, we still have -- I mean, the Keys are just being loved to death by so many people, recreational or commercial or whatever, and that's something I don't -- You know, I mean, our children, and our children's children, are going to really have to come up with something, because the one thing that is really hurtful to our industry is trap loss, in particular, and that's another thing. Trap losses are greater, due to the increased boat traffic, and it seems like lack of respect for the gear, and so on and so forth.

Having said that, we've gone to using more trap gear without buoys, so that we don't lose our traps, because once -- Another thing is we used to be able to replace our traps without having to buy traps, and, I mean, we could just supplement a trap. Now, if you lose a trap, the trap has a tag, and so you can't just put another trap out, and so it's very difficult to replace what you lose, whereas, before, if I'm losing 10 percent of my traps, I can just put 10 percent in the water.

I am kind of -- I don't want to go crazy with this, but I guess the main thing is, you know, the habitat may be coming back, but there's something -- I stone crab out fifty or sixty miles in the Gulf, and I put a lot of time, and we have almost 20,000 stone crab traps and lobster trap combination, but about 10,000 crab traps in the Gulf, and we're having increasing algae blooms that are out of sight and out of mind, and it's really bad.

I mean, we have to jump in the water and actually, with a wire brush, clean the strainers on our lobster boats, so that we can come in and out without overheating the motors on the boats, and that's a -- It's really a big concern, and you don't see it inshore so much, and we haven't had the algae blooms that we had back in, I guess, the 1980s and 1990s, where the sponge die-offs and everything were, but we're having some real big problems, out in the Gulf itself, and so I guess that's the main thing of concern to me, is the water quality, if we don't get something, and, for years and years, and I was on a joint action group for water quality back in the day, and we got the George Barley thing going.

Then we joined another group, and we keep asking for money, but, to my knowledge, it's certainly not helping anything, and we haven't -- As far as I know, I don't see the fresh water being restored to the estuaries, to make -- Whatever we're doing, we need to do something different and get, you know -- Before we lose a lot. I mean, surprisingly, we're able to catch the stone crabs in the areas where the algae is. I mean, that's something that is weird. With the lobster, if you lobster in the Gulf, when you get into those algae blooms, you have to get out of it to catch the lobster, and that's another interesting thing.

There was a tremendous change, tremendous changes, in the fisheries over -- This was my fiftieth season, this last year, and, just being a diver, kind of like Tom, and you see what we see now, and what we did see, live corals and things like that, it's certainly depressing, the amount of availability of finfish and everything, and I'm really stunned that the lobster fishery has help up, and it seems to be very viable.

We're not getting paid as much money for the lobster, and we've had -- I guess, since I'm into this, we've had -- The last couple of years, since the COVID and everything, it's been a bigger sell, trying to sell the product, but the product was up to like twenty-dollars a pound from the Chinese, and I actually lobbied every -- I actually got the Chinese here and started the Chinese market with the spiny lobster, about twelve years ago, with Larry of Elite Sky, and a guy named Juan Haut, and that worked out really well.

We upgraded our fisheries and fishermen income from being -- You know, driving completely old pickup truck and putting old crummy motors in boats, and try to just keep them barely running to having a very good quality of life, and the certificate program has made the price of being able to -- Like, when I sell out of my business, and I'm selling down some of my business, and there's something of value there, which we didn't have before, and so there's a lot of real positive things for people that are in the industry, the young people.

As the traps reduce, remember that we reduced from a million traps, and we're down around 450,000, and I don't know the exact number, and we should be getting lower, down toward that threshold of 400,000, which we worked on, and so that's -- You know, the commercial industry is going down, and, recreationally, it's going up. I think you're off on your -- Especially looking at your graphs that you had on the bully netting.

Bully netting has become more of a -- The recreational catch is being more driven by the bully netters than what you can imagine, and the bully netting itself -- I have several friends, and I don't know why it's not showing, but they're catching 200 pounds, and they're catching their limit of 250 pounds a night, on that end, and I think a lot of that is under-the-table sales, and I don't think you're reflective, really, of what -- That fishery has grown geometrically, because it's easy to get into, and it's easy to get the permits, and it's kind of done at night, and so you don't have the eye-on-the-ball kind of thing, and so that's something that is a little bit of concern.

I guess, if you're looking at it from my standpoint, I just -- We run our traps, and we do our thing, and we're catching okay, and so we kind of -- We have always tried to not really hammer recreational people, or want to hammer a user group, so that we don't get it beat back on us. I mean, it seems like we've undergone so much policy changes, and so many changes in the fishery over fifty years that I've been fishing, and I feel like we've made some really good -- Our industry, I've got to say, I'm really proud of the leadership, especially with OFF, Organized Fishermen on Florida, Jerry Sampson, with the limited-entry program that we put in, to be where we're at now, to have a viable, sustainable fishery.

The laws that are in place, working with FWC, working with law enforcement, and we aren't having a gigantic -- As the traps decrease, we were worrying about having a trap-robbing escalation that would be unbelievable, but thank god, with the prices of everything, and the fines and stuff, working with the law enforcement, it hasn't -- It's actually been better. The trap robbing has gotten better over the last ten years. I used to lose probably 25 to 30 percent of my catch a year, and so that's something that's actually -- Between law enforcement, and I think the fact that the certificates are worth so much, even if you have some traps on -- You have trap certificates, and you know you're going to lose \$200 a certificate if you get caught, and I think there might be a deterrent there.

There is some loopholes that we need to address, probably, internally with the FWC, down the road, and there is some loopholes that maybe need to be closed up, but, other than that, I think we're on the right track.

As far as the lobster goes, I really think we're in a good place, as long as we don't have a storm, and, you know, with global warming, that's questionable, at best, and that's really scary stuff. I own a fish house on Conch Key, and just one other big thing is, if you don't believe in global warming, all you have to do is come to the fish house that I have owned for the last thirty years, thirty-five years, and look at the water levels. I mean, it's incredible.

The streets are flooded during what they call the -- You know, we have these full-moon tides, which now they call them -- I can't remember, and there's about ten different names for the full moons that they have nowadays, and the roads get flooded, and so that's something that is going

to be something for our children's children to be dealing with. Anyway, that's just about all I've got, and, anything else, if you have any questions, I will be glad to answer.

MS. STAFFORD: Gary is always a hard act to follow. You covered pretty much everything, but, I mean, I will, again, reiterate gratitude to you for bringing the Chinese market in. It did help us at a time when we were really hurting and trying to figure out how we were going to stay alive, or what was going to happen, because the expenses were about equaling our catch, and we were just coming off some of the other problems with, you know, user -- When we get to talking about the casitas, I have a lot to say about that, because we were greatly impacted by the casita fishery, because it's very successful exactly where we fish.

It displaced us and cost us gear, and we were lucky that we didn't lose a boat, or lose more over it, because we were kind of outspoken about the difficulty that it was producing and the difficulty in enforcing anything, because it's out of sight. It's a bit like the bully netting thing, though that's nowhere near the same volume of impact, though that has increased, and you wonder, you know, how much of that is legitimate and how much of it may be coming from other sources.

The changes in the last few years, since the hurricane, have been profound. I mean, we lost our house, and Gary lost his house, and we lost so much gear. You know, if we all hadn't been invested in this, and love the Keys and love what we do, I'm not sure -- You know, you have to be a bit crazy to start over again, but, you know, we did, and our son is very invested in this business, and he's been on the boats since he was an infant, and he loves it. He's running the boat, and he wants to stay in the fishery. He has a son now that I think he would love to see him have a future in it too, and it's a little -- It's a challenging time. It's a challenging time, between all the changes that are happening.

I don't see the algal blooms inshore that Gary is seeing, but we do have a lot of other changes that have been happening, with a loss of habitat. On the brighter side, my husband, Simon, who is in the back there, and I have been doing a lot of just drift looking, jumping overboard and taking our little Whaler somewhere and just jumping in and drifting with the boat for a while, just to see what's actually happening with my own eyes, and I've got some good news.

I mean, there's a lot of little lobster out there, and there's a lot of big lobster out there, and there is some healthier-looking coral patches, and there's some healthier-looking fish stocks. We saw sea biscuits and sand dollars coming back, which, you know, they died off a few years ago, terribly, and conchs. We almost ran over a conch on the way into our dock. I mean, a big broad-lip inshore, and I just found baby conchs inshore. Pelican Shoal had so many conch, and horse conch, huge horse conch, cruising around and eating the queen conch.

I mean, it was some good news, and so it's been good to see some positive things happening too, and that is very encouraging, to me, and so, every year, we say maybe this is the last year, but, this time, we're like, so how many traps are we running this year, and I'm already claiming back all of my traps for this season again, and I'm so stubborn, but, you know, I love the fishery, and I would love to see it maintained, and I'm grateful that you have also spoken about the trap certificate program, because, as hard as that was to institute, and I know it did harm to a lot of people, in terms of young people getting in, and it's made it much more difficult, unless you were already in the fishery, but, you know, had we not done that, I don't know where we would be.

I don't know how people would have continued with the fishery, because there would have been way too much gear out there, and, with the cost of everything now, we want to be as efficient as possible, both in, you know, numbers of traps and in the distance we go.

The other interesting thing that you brought up, Gary, was the change to trawls, because I do see that happening too, which is -- It has the benefit of being less impacted, maybe, by recreational boaters, but it also makes it hard for me, who is an up-and-down fisherman, to get caught up in someone's trawl after there's a bit of a breeze, and it nearly pulls me out of the boat, when I get caught up in somebody's trawl, and so I don't know if there's some way that we can resolve how we run gear, that there's certain areas that you don't throw the trawls.

The increase in boating traffic, big boats, lots of motors, who are going in places they probably shouldn't go, because you see the double and triple prop scars behind them, and that's concerning, and I wish that we could institute some sort of a boating course that would be -- You know, like a licensing thing, because people are -- They have more power than knowledge, and, you know, it's kind of scary, being on the water. I have nearly been run over, a couple of times, by power boats, when I'm working a trap line, because they don't really understand that I don't have the ability to maneuver out of their way. It's their responsibility to avoid me, and that's a bit concerning, too. I guess that's my introduction. Thank you very much.

MS. WIEGAND: I just want to give you all a reminder that, while we're going through this, it helps with the transcription that we'll have of this meeting if you can just state your name before you start to speak, and, if you're -- You know, as we start digging into the more nitty-gritty of all of these questions, if you're talking about a specific area, let us know, because we know things in the Florida Keys are probably different than they are off of North Carolina and different than they are off of Florida, and so to make sure that we're attaching the comments to the correct area.

MR. NICHOLS: I guess, since we're talking about the -- I was just wondering if some of the recreational guys wanted to speak on what they see, because I don't know anything about Georgia. Also, I'm Gary Nichols, basically Conch Key and the Middle Keys, and I didn't actually say where we fish, but we fish basically from about five miles west of Sombrero Light up to just east of Alligator, and we used to fish down as far as almost American Shoals, to the west, and up as far as Molasses to the east, and we have kind of cut that range down a little bit, and, as far as the Gulf goes, we fish out to Northwest Cape, out to sixty foot of water, into the shoreline and back to the Keys, and so that's kind of where the hub of my operation is.

Mimi, talking about that bottom and the small lobsters, that was kind of what I was seeing, and I saw that in the traps and from diving. I have seen some of that inshore water coming back, and some of the grasses are growing back, from what I've seen, and I've seen -- I'm actually catching scallops in my stone crab traps, and that's kind of interesting, out in about forty foot of water, a lot of scallops, and we're getting ready to go to Steinhatchee for ten days here next week, something our family loves to do.

Just like Mimi, my family -- My daughters, my two daughters, have been in the fishery since they were born. My wife and I not only started the business, when she was fifteen and I was sixteen, but we have -- My son-in-law, Eddie Cordova, fishes for Gary and Scott, now Scott, and I kind of see something that is good, from the younger generation to be able to get into this. We were worried, when we -- I lobbied every state senator, and I want to kind of give some people some

overview, because there is not very many commercial lobster people here right now, and I'm kind of a little bit disappointed, to say the least, but, with the two that are here, with that certificate program that we passed, I lobbied -- I got to be experienced at how politics work, and I lobbied every state senator and representative, and I went to Tallahassee, probably forty or fifty times, during the two years that we took to get that program passed, and that was a monumental, almost -- It was an incredible thing to have that pass, because, back in the day, it would have only taken about two people on the telephone, calling their legislator and saying they didn't like it.

If anyone knows how politics work, it's real easy to kill a bill, and it's really hard to get something new passed, and so we passed that, and they have a place in our fishery, and our certificates -- Just to give you -- When the certificate program first started, back in the 1980s, the certificate -- We could sell a trap certificate for about between \$5 and \$15. Right now, I'm selling certificates for right around \$200, and so that shows the strength of the program, at least.

You thought that the young people would be put out of the fishery, but, ironically enough, there is a little bit of some ways that we have found, and I just sold -- I am trying to find only young people to sell my certificates to, and I'm very selective, and so I have a young -- Ernie Patan, Jr., and a lot of you might know Ernie Patan, and he's up here in the Key Largo area, and his son, Ernie Jr., I just sold 2,400 crab traps to him, and we sold a thousand lobster trap certificates to a young man who is probably twenty-five or so, down there at Keys Fisheries, and we just have to do a little owner financing and write up some things, to where you give them three years, and, if you have a hurricane, you give them a little break, and it's actually better for income tax reasons as well, so you don't get like a capital gain for your thing, and so a lot of the things we were worried about seems to be working themselves out, but it's only through the years that we've been doing it.

I just want everybody to know that that's the way that system is actually working better than I would have -- I was really worried, you know, and am I going to sell, and, okay, I'm going to sell all this, and, well, one thing is, honestly, it's really hard -- I have never sold a certificate, in my life, and I have built up from -- I have built up, built up, built up, for the last -- Since the certificate program started.

We originally were fishing about 7,000 traps, and, right away, when I had to invest it back, it put us right about where we were, and the idea of the whole program was to reduce. Well, my family increased, and so I have -- We support not only my family, but we support eight other families that work for me. We support my two daughters and their whole families and their houses and everything else, and so it's all -- We're all like one big commune.

One last comment that I want to make is the single greatest threat to our industry, the absolute single greatest threat, and I don't know how to get out of it, is finding help, finding workable employee housing and finding people to work for you and finding legal people to work for you. In all honestly, I have done -- I have ads in the paper that run all year long, and I cannot get honest, hardworking American people, even though I want them. I have had the worst -- I believe we could sit down for an hour-and-a-half just talking about really bad situations with really bad people, whether it's every kind of -- I have to say the Anglo-American, like myself, has been probably the worst.

Then we've come into different Hispanic groups, and the best luck I've had is like with the Mexican people, and they, for some reason, are a little bit more honorable, and they're really

hardworking, but getting them legal, and the other thing is the Coast Guard has just hammered commercial fishermen, I mean hammered. They don't go into people's stores and raid the store and take somebody who is Mexican out of a restaurant or a store, but they stop our boats, almost every single day, and I have lost a lot of help, and I get paperwork from them that's supposed to be legal, and so that's the single most reason why -- If I didn't have the stress of the help, I wouldn't even be thinking about selling-down the business. I don't have a problem getting on the boat and going to work, but the actual stress and wonder, in the fact of it is with these helpers that we have now and not caring -- It has to be the fishermen's -- We finally got, legally, the mates responsibility.

We teach them their job, and we show them how to measure a lobster and measure a stone crab, but do they do that? We actually had guys on boats, this year, that were wringing tails on my boat and putting them in backpacks, not only this year, but last year, several different guys, right on the island of Conch Key, and I have actually had to call David Dupree and have him meet us at the dock and say this guys is tailing lobsters, and he's got them in a bag, and they jump out of the bushes at the fish house, and we set them up, because we've got cameras on our boats, to try to watch the guys, but, any day that a marine patrol stops me, and as good as it is, and how many years I've been fishing, what scares me to death is getting stopped and having too many shorts in the live well.

I say, okay, and I'm up on the flybridge now, and, I mean, I still run the winch on my trawls and stuff, but you never know what day it is and the count on the shorts and the measuring the lobster, and I unload every lobster, even with the Chinese here, and so I'm looking, and something that happens with egg-bearing lobsters.

I mean, if a lot of you don't know the lobster fishery, in the beginning of the season, the end of the season, or even sometimes even down in September or October or November, you're getting egg-bearing females that, when we take them out of the trap, we put them in a box, in a grader box, especially during trawls, and we're checking that lobster probably two times, and so I know, when it's in the live well, it's not going to have eggs, but, sure enough, being in the live well doesn't circumvent, when it gets to the fish house, and we unload that live well, I don't have two or three egg-bearing females, and we might have 2,000 or 3,000 pounds of lobster, some days, or a thousand pounds, but there might be two or three.

If the marine patrol happened to be there, I'm going to get this gigantic violation and lose the business that I worked for fifty years, and that is scary stuff, I mean, and we don't have any reason, because we're selling live, and that's another good thing about live, and so we're going back through them, and the lobsters are getting thrown right back in the water, and, if we have a short in the live well, and sometimes the basket of shorts is in with the live well, and we have them separated with a thing, but, no matter what, you will find a couple of shorts in there, and you throw them back in the water, but that's probably the stress level of being in the business.

You can make a good guy into a bad guy, and you can take my fifty years of hard work and experience and trying to follow the laws and work with everybody, but what day that might be -- That's a big thing that no one -- I mean, it may not -- I don't even know if this is the right place for me to talk about it, but it's a big deal to somebody in the industry, and it's a big concern for the captains or the owners of the businesses that we have.

Scott was talking about the housing, and affordable housing -- I just actually got my fish house sold, through a Stan Mayfield grant, which is very hard to get, and it's going to probably be the first working waterfront in the Keys, and we've gone through just almost a year-and-a-half of -- Hell, I could have sold my place for quite a bit more money, and they would have been building condos there probably in a week later, because I don't have to go through -- I'm allowed affordable workforce housing, but part of that was they weren't going to let me have my three trailers that I am grandfathered in to have.

I finally said, okay, if you don't allow me to have that -- After the Governor signed off, I said I don't have a choice, and you're telling me that I can't have any place for these guys, and we're looking around Conch Key, and the trailer park there got sold out, and the county bought it, and it's going to be workforce housing, but it's only going to be mainly for first responders, and there's only eleven places. There was like forty places, and all the fishermen that I had working for me lived in those trailers.

Just looking at the future, where are you going to go, and so I'm kind of planning my business as reducing down and using my family and just fishing one boat, and, I mean, I've got my plan, but I don't know the future, and the Cramers, across the street, the same thing, and where are you going to get people to work and to live? Affordable housing is an income level of \$70,000 or \$80,000, to qualify for affordable housing, and it's crazy.

We need some apartments built, I mean something that is smaller, and they don't -- I mean, if you get a 600 or 700-square-foot place, somewhere for actual workers to live, for all the businesses, including commercial fishermen, and we are really on the bottom of the totem pole for all of that. I guess I'm kind of like drawing everything out, but I guess this is a wide scope.

This casita thing really sucks, and I mean, really, really, really sucks. I was told that we had a -- I was on vacation in Orlando last week with my family, and I got told there was a meeting down in Key West on it, and it's going to bring up casitas. During the middle of the crisis with the COVID and everything, we addressed casitas, and I talked to Rodney Baretta, and I talked to Alan Spotswood, and we thought the casita thing was squashed.

When we went into the limited entry, when we started the trap certificate program, we talked about casitas. We talked about the future of our industry. There is no place in this industry, if you're going to have a trap fishery, to have a casita fishery along with a trap fishery. We put a lot on the line to get -- Being commercial fishermen, to have a trap fishery, and there was -- This casita thing just keeps coming up and coming up. They say, oh, it's dead, and, all of a sudden, here it is again, and it comes underhanded from people with lots of deep pockets and absolutely nothing to do with -- We've reduced our traps from a million, thinking catches are going to go up, and everything is going to be better, and why, if we've reduced from a million to 400,000 -- I would much rather reduce our traps than to have a casita fishery.

Just like Mimi said, that was a total disaster, and it was taking a giant chunk of our catch, and you're putting all this junk on the bottom, in places that people never will see, and there is no way to monitor, unless you mark them, and then, if you mark them, then you're going to have the recreational sector, that is millions of people, having more places to dive and take lobsters from, and so there is just no place, in a sanctuary, that I could ever imagine, in Florida, unless maybe

super far out in the Gulf somewhere, to put a casita fishery. Not in the South Atlantic, for sure, and definitely not in the sanctuary zone in the Gulf.

I just wanted to put that on the record, because I really -- It's like stabbing you in the back and turning a knife. I mean, it's kind of like how we got screwed, in the stone crab fishery, by being - - We couldn't have public testimony, and this so great that we're back in a place, and the stone crab rules just got changed last year, and we didn't go with one rule, and the stone crab fishery was a strong, stable fishery, and we got escape rings, and we all agreed to it. Our industry was 100 percent buy-in, and we never did that before, and this is a big deal, that we have an escape ring to let the small crabs out.

We also got fifteen days of our season taken, away, two weeks, at the end of the season. That's great that we're going to protect more egg-bearing stone crabs, and I'll all for that. In the middle of that, they decide to change the size of the stone crab claw. Now, if we would have kept that with the Gulf Council, or the South Atlantic Council, the stone crab, that would have never happened, because you have to go through the Magnuson Act, and you have to go through this process, which is great.

The process they had, they gave Terry Sampson, and they gave Gary Nichols, and they gave Bill Kelly, two minutes to fight for our lives, two minutes, and we had three or four meetings, and they passed a gigantic -- I have caught -- Basically, I caught a pretty decent catch of stone crab, and the prices were great, but I lost 25 percent of my stone crab catch, because the mediums make up a gigantic proportion of the majority of my catch, especially in the winter months, when we fish offshore for the crabs.

Everybody looks at it, and now the public can't -- My restaurants usually buy mediums, and we can't get restaurants mediums, because there aren't enough of them, and there's a lot more large, and you're just going to have ask Scott, and we're asking a lot more large than we're catching mediums, only because we lost 25 percent, and everybody says, oh, that's so small, and I went home and did my homework. As I graded my crabs, I took out the mediums that were on the size, and I calculated a percentage, and it was 20 to 25 percent just out of -- I mean, almost every day, and so we lost a lot.

I'm just saying we want -- I love this process of the councils, and I really, really feel betrayed by the process, and not that it's not a good thing, but with the FWC, in particular, how we regulate, because that got shoved down our throat, and you don't see it, but, when it comes out of your pocket, 25 percent of your income, and fuel being \$5 a gallon this year, and just going on another thing, it's going to be really tough -- The economics of China -- I mean, down the road, if you want to talk about that, I can talk about economics, because I've been involved with that, but our market isn't really too great, especially in China, with the COVID and all the things going on around the world.

It's real scary this year, with five-dollar-a-gallon price for fuel and a five-dollar lobster, instead of a twenty-dollar-lobster, and our average ex-vessel lobster price has probably been running around \$10, and so this is coming up on a -- I mean, every year is scary, but, you know, we'll make it. The fishermen always figure a way, but that kind of was just a couple of things that I left out, was the economics of the coming season and some of the legislation and what happened and kind of a

history of that, and I thought that some of you newer people might want to hear about that a little bit, because there's not a lot of people here.

MS. WIEGAND: All right. Well, Gary has covered a ton of topics already, and I'm going to try to sort of walk us through this questionnaire and talk about sort of each of those things that we've now sort of broadly covered in a bit more specifics, and so I'll start us off with this fishing behavior and catch levels series of questions.

From everyone's experience, and I know we've already gone over a little bit of this, but are you guys seeing effort shifts to and from spiny lobster? Are more people getting into the spiny lobster fishery, and are you seeing fewer people interested in the spiny lobster fishery, both from a commercial and recreational perspective? Are you seeing changes in fishing techniques? It's already, again, been brought up a little bit, but are there changes in the popular gears that people are using to target spiny lobster?

We've talked about, you know, Gary's concerns with some of these undersized lobsters, and is there anything that you all are able to do to sort of avoid areas where you're seeing a lot of those undersized lobster, or are there any techniques you use to sort of avoid catching those lobsters, and, again, this is both from a commercial and recreational standpoint.

MR. SMITH: Our fishery is much different than anything in Florida, kind of the structure of everything, recreational and commercial. It's just two lobsters, which we might want to speak about the commercial side just being two. There are some users that don't really see why that has been established, and so, if we talk to kind of general behavior about it, it's just -- From the circles that I'm in, lobster is kind of like an add-on. You go diving, and there's not a whole lot of people who just go out and target. They're going out spearfishing, or they're diving, and they will take their two lobsters, and that will be just kind of it. There might be a little more interest in people going out and just, you know, seeing what's down there and then giving -- They have the ability to take home two lobsters.

I would probably say I've seen an increase in the amount of lobsters that I've noticed. I am starting to see more inshore, and I never used to see that. Diving some like just bridges and pilings and stuff, just like in the marsh, and you see a lot more small lobsters, and you used to not see that. Offshore, you know, from my eyes, and from everybody I've talked to, it looks great, and nobody has a problem like going to any particular spot and seeing an abundance of them, and so the fishery is definitely pretty strong.

It's just, the way it's structured in North Carolina and Georgia, it's just kind of -- There is not much room for it to change. You know, there's very little commercial interest in, the way it's structured as well, and so, from all the years that I've been doing it, it's relatively stagnant in maybe total effort. There's not a ton to speak about, really, just because the industry is not there for it, and so I don't know if you have anything additional to that.

MR. WHITTINGTON: I'm seeing much the same in Georgia. We've got a fishery that's hard to get to. It's forty miles offshore before we get to a lobster that we can keep, and so it's not commercial. The smallest we can get is about two-and-a-half pounds, and the biggest one is around ten, and I assume they are migrating in. They replenish every year, that deepwater bottom. They

will deplete during the end of the season, and you will see people working them, but we're happy with the results, and I don't see much change in that commercial aspect at all.

Recreationally, there may be more people going, but they don't go that far. It's not worth the time and the money you've got to spend to get there. If you do it for fun, it's fun, but it costs, and so we're happy with our fishery.

MS. STAFFORD: I would like to ask a question about -- Have you noticed an increase in just abundance?

MR. WHITTINGTON: No, I haven't. They seem to be about the same, stable.

MS. STAFFORD: And is there any commercial fishery up there?

MR. WHITTINGTON: No. We may have a few commercial people that come up out of Florida, because they can come up and go back into Florida with the catch, divers, but no trap work.

MS. STAFFORD: Okay. Thank you.

MR. NICHOLS: Mimi, on the -- She was asking about the -- Christina was asking about the shorts, right, and you wanted to know if there were some ways to get around the shorts and this and that and the other, and the short availability that we're talking about isn't that the shorts are -- That we're fishing in an area where you're getting away from the shorts, and we don't want small, little baby lobsters in the traps, and those areas we -- I don't traditionally fish too much anyway.

I fish more towards -- I fish where I like to fish, as I've gotten older, and there's still a lot of fishermen -- Productivity-wise, I would do better if I fished within probably a mile of shore each way, and it just seems to be that's been, the last few years, a more productive area, but, for what I like to do, I like to be away from people, and I don't like being around other people's traps, and I like fishing more of the deepwater stuff, or somewhere where people aren't.

As far as the shorts go, you know, we try to throw all the small lobsters out of the traps and only leave the bigger lobster to attract the bigger lobster, and so our industry kind of self-regulates that, and what's kind of -- You know, when we say baiting out traps, you know, we're trying to bait -- To put a couple of lobsters in the traps to attract other lobster.

What's been kind of nice, over the last couple of years in particular, and, as time has gone on, since the trap certificate program, it has been easier to bait the traps, to leave them baited, and it's critical, again, with your workers, to have people that work for you that are experienced. If you're missing legs off the lobsters, I mean, we try to let them go, to regrow, like shorts, but that's something that the captain does, kind of like with the stone crab.

We started the process, and there was no law. We could throw those crabs in the box and leave them in the box to bite each other, I mean, which is stupid, and we started breaking out crabs, probably thirty-five years ago, or forty years ago, I guess, and we break all of our crabs out, and we very rarely have more than a dozen crabs in a box, and I try to be real -- I basically stop the boat and yell at my guys if I start filling up a box of crabs, even though we're catching good, and I say, okay, we'll take an extra minute here and clear the crabs and let them go.

Now, on the lobster, it's the same thing. You just have to -- It's the commercial captain's responsibility, and I think, as we reduce the traps, and the guys that are actually full-time commercial fishing are doing that, but, from our standpoint, it's easier to bait the trap, and, with more abundance of sub-legal lobsters, you have a better quality of lobster, usually.

When I talk about the abundance of shorts, when we bring in our traps, and most of my traps I start bringing in like the middle of February to about the middle of March, and we've had some tremendous runs of lobster right at the end of the season, mostly in places where you don't see that much of an abundance of shorts, but they're all getting thrown back, because we're at the end of the season, and so that's when I'm seeing lobsters, which we never saw before, really, where I'm throwing back -- If I too, pictures of my traps, you would freak out. I mean, I would think that I was catching ten pounds a trap, and I'm like, oh my god, we're going to fill the boat, and I'm catching maybe one pound a trap, but I'm catching forty or fifty lobsters.

That's kind of what I'm saying, is it's more when the influx, or migration, due to maybe weather events or whatever, or maybe because I'm the only one left out there fishing when that time of year comes, but it seems to be, in the last few years, quite an influx and increase in abundance of the shorts at that time of the year. The beginning, you're spreading the lobsters around, and I really don't see anything tremendously different.

There was one other thing on habitat, and we did a major clean-up of the Keys here, the last two years, and we've done all these islands, from all of Marathon down to No-Name Key, and I physically walked about four or five islands, all of Little Pine Key, Big Pine Key, No-Name Key, and we cleaned up all the trash and debris from the -- Which was incredible, the amount of stuff we have, and I have some pretty neat pictures here, if you haven't seen what happened there, but it was pretty cool, but we had to walk, in that inshore waters, in places that I dove when I was a kid, like Spanish Harbor Channel and back down around Big Pine Key and all those islands behind East Bahia Honda Key and all that.

What was kind of really depressing was, along the shoreline, where the mangroves and everything was, the water is pretty tannic, and pretty much nothing is alive in that shallow water. It's just mud. You don't even see pinfish, and you don't see snappers, and you don't see schools of anything, and that is something that I didn't really speak of before, but, by walking -- I talked to all of our groups of fishermen, and we walked every one of those islands and did an unbelievably great job, I think, but something that was just real noticeable is, where the mangroves usually hold lobsters -- When I was a kid, they were up on all those mangroves, and there would be millions of lobster, and there's none, not one, and so that's a little scary stuff, you know, and then I would go, well darn, we're going to go put our traps out, and, darn it, I put my traps out, and they're full of lobsters.

I'm going, well, dang, I guess they're going somewhere and doing something, but that breeding area is really wrecked, after the hurricanes. I didn't get to walk it right before the hurricanes, but I know, since 2017, we've had a horrific situation along those inshore islands especially and that habitat loss, and it's very muddy and silty.

We talked about trying to get some dredges and take out some of the old mangroves, and I talked to Tom Matthews about it, and I talked to the sanctuary, to Sarah Fangman about it, and kind of

let her -- She got some first-hand knowledge of what's going on, and so that's something that hopefully we find a way to fix up, but, somehow, the lobsters are finding a way, and maybe like the movie "Evolution", and I don't know, but something, and so whatever. There's something, like nature finds a way or whatever, and so, anyway, enough of that.

MS. STAFFORD: Gary, do you think some of the tannic water is from the seaweed accumulation and coming in, and it is around our way. We were fairly clear until this last breeze, and we got totally inundated with -- I mean, we've got a foot of muck, or two feet of muck, around our property again.

MR. NICHOLS: That's exactly what we're seeing, is where all that seaweed dies off, and then you get more seaweed dying off, and so it kills the seagrasses within ten or fifteen -- Well, probably fifty foot of the shoreline. We had to wade in, and, most of the time, we had to put even our small skiffs -- They end up about fifty foot from the shore. Unless the tide was really low, it's hard to find a hard spot to walk, and so, I mean, how many -- I was using Crocs, and I tried using Crocs, and I tried using -- I mean, boat shoes, tennis shoes, and we lost a lot of shoes. It sucked your shoes off down in the mud, and they're gone, and, I mean, you're down -- I mean, it was incredible.

I mean, I really got some cool pictures of my family and us doing that, and I feel like we did a really great job, but that was pretty depressing, and, just like you said, it's mostly the die-off, and all of the -- What is really amazing is the root system for the mangroves has been destroyed, pretty much, and everything that's along the shoreline -- Most places, where the hurricane really had that eastern exposure, the trees are just lying there dead on the islands, and that's all deteriorating and probably becoming compost, just like everything else, nutrient enrichment, and it may take forty or fifty years to come back, but I don't know what the solution is, but that's a mess right now.

Ironically enough, in the shallow spots, around our houses, and maybe the little island where I keep my traps there, behind my house, over in Channel 2, those islands -- They got wiped out too, and there's a lot of -- I mean, an unbelievable amount of dead trees. I don't know why, but the hurricane seems to have caused a real long-lasting effect on mangroves, in particular, even the ones that are in the upland parts of these islands.

They don't seem to be coming back, and there's just a lot of dead debris and trees in the properties, and I don't know why. I don't know if maybe there's not enough fresh water coming up into there anymore, and maybe the global situation with the tide rises are keeping more salt water, and it's killing the inland islands, I'm sure. Anybody who lives here in the Keys and goes up into those inshore islands sees that.

I mean, one just really great example is, if you're driving up the road on your way back, check up in -- Well, you have to be driving south, but, anyway, if you go over Channel 2 and look to the bay side there, that's the island where I keep traps, on the backside, and I've been keeping about 3,000 traps there for about forty years, and that island was totally decimated as to -- I mean, you can see all the way through the island, and, after the storm, you had the trees kind of blown down, but you would think they would regrow, but they're not. There's just a lot of dead trees, but the mangrove systems, and those areas, where you have water flow, strong currents that run through there, there is still lobsters and stuff under all of those roots, and the root systems are looking a lot better than what I see down in the Middle Keys, from Marathon to No-Name Key, which is the area we mainly work, every single island.

Anyway, that's just something of note, I guess, seeing where our recruitment comes from, and it's probably not coming from those inshore islands, and probably what Mimi said -- What was beautiful is, as we took the little boats to the barge, the bays that come like between No-Name Key, the No-Name Key Channel there, for instance, looks really healthy, and there's a lot of nice-looking growth in the water, in the deeper water, and the habitat looks healthy in a little bit deeper water, but you just don't see a lot of the -- I haven't seen the coral growth that you're talking about, and I hope I see some of that on the patches this year.

I haven't been -- I just had some surgery done, and I've been several months out of commission, and so I didn't get to do the diving that I normally do, and I will probably do the two-day dive days, but I'm looking forward to it. Anyway, that's about it.

MS. STAFFORD: Well, I will just add that I have also seen die-off in certain areas, right next to adjacent to our property, and that started actually before Irma, but it got much worse, and, since then, a lot of the trees have broken down now, and it's starting to look like it will recover, especially on the open water.

I was surprised, back with Andrew, at the loss of mangroves, and I thought they were more resilient than apparently they are, because I guess the roots get suffocated. They get mud blown in around the prop roots, and they can't breathe. They can't exchange, and so they suffocate, and so that's why you get the waves of die-off, and it takes a long time before there is enough, you know, oxygenated area where they can re-grow, but I do see things improving. I do see greening. They are starting to collect pods, and they're starting to regrow, but it's what, five years? I mean, it's probably going to be another ten year or more before you see a change.

MR. NICHOLS: In February, we did the clean-up of No-Name Key, because that's a big island, and it took a long time. We were working on Big Pine Key and No-Name Key, but that -- Right along the road there, on Big Pine Key, just coming off of U.S. 1 and then down there right there, until we run into the houses there, that one section, we were there for like four days, but that mud and all the stuff you're talking about, and it's just so silted up and everything, and it was -- I mean, we had to spend so many hours in that one area, and I didn't see anything coming back much alive but I'm hoping that's going to -- I'm sure it's going to happen, but it's just whatever, but it's kind of sad, especially if you grew up here in the Keys in particular, seeing what we see now compared to what we've seen before.

Thank god, and I was just thinking that, if we ever wrote a book -- I started fishing back when I was a kid, back in the mid-1960s or whatever, but my lobster fishing started around the early 1970s. If you could write a book on what you see now and what you saw then and the changes, not only from the fish side, the lobster, the crabs, the whole entire fishery stuff being -- I was so blessed to have been born, I guess, when I did, at the heyday of all those things, when production and everything -- It still astounds me, the older I get, that we still have what we have, because we still have a very profitable lobster fishery and a very profitable crab fishery.

Reducing from two-million stone crab traps down to 600,000 -- The young people that are in that fishery, they're going to get a -- I think they're going to have a really good situation, I think price-wise and everything, down the road, as those traps continue to reduce.

What's happening now is the traps themselves, geographically -- I don't know if I'm going to go onto another subject, but one of the big things, with the catch of the lobster, is the place where you can put your traps dictate, pretty much, how much pressure gets put on an area, and so the area from Marathon to Lower Matecumbe has -- We did some percentages, and I think Tom did, years ago, and I believe we were fishing about 40 percent of the traps in an area that's already humanly populated and has the least amount of area, from the shore to the deep water, where you stop losing lobster, and the bay, until you get to the park line there.

With that, that's kind of dictating -- Even though we have the trap certificate program that reduced the traps, we still have most of the fishermen still centrally located in places that don't have the best amount of lobster, and so you CPUE, on a lot of the catch per unit of effort, is much less in those areas of say mid-Marathon to Lower Matecumbe than you get if you go to Miami.

Fishermen friends of mine, and I grew up in Miami, and I graduated from Hialeah-Miami Lakes High School, and, if I would have stayed in Miami fishing, right now, esthetically, I wouldn't like it, but the catch per -- The CPUE is about double what ours is. I mean, if you get to that Key Largo area, where you run out of the trapper areas, and there's not near as many traps, even until you get to Miami -- Those guys are running between twenty and thirty pounds per trap, and our catch per trap is probably between twelve and twenty. You know, a good year is probably twenty, even as hard as I fish, and I try to go as far as we can this way or that way, and you're still just -- Our conflict comes with trap users.

As the newer guys come into business, they don't have the respect that we used to have. If I went into an area, he'll come to you, and say I'm going to fish here, and where are you at. Nowadays, there is the respect level and everything, and that's another changing thing, and so you just have more traps. Some of the places that I fish trawls, it used to have two guys fishing an area, and now we'll have seven or eight guys, and you know what they're catching, because -- I will just, out of hardheadedness, sometimes, not move my traps, because I just don't want to give up the space that I have.

I could catch a lot more lobsters if I did, but to move the traps and go somewhere else, but that's another thing, is education of the young people. They don't realize the amount of lobsters they could have if they just went twenty miles the other way, or fifteen miles the other way. I wish I was young, because I would be fishing Key West, and I would be fishing Key Largo. I mean, I would have a boat in Key Largo, and I would have a boat in Key West, and I wouldn't be where all the traps are, but I'm -- You know, we have a place that we can put our traps, and we're all set up, but it's very hard to move things around, and so I think, down the road, when the numbers go down and everything, you're going to see more of a displacement.

The fishermen are going to start to be moved around a little bit more, and I think the catch is actually even going to be better. I don't think you're getting reflected -- The actual catch of what's out there is being reflected. Just because we have a trap in the water, it doesn't mean that we're catching all the lobster. You may be catching all the lobster in that area, but there is a lot of water that's not being fished, and that's probably great for the lobster, and that's probably why we're having a good lobster season, because there's a lot of water that we don't fish, and we have less traps that we are fishing.

The increase still comes recreational, and, as time comes, there's just an incredible mass of people moving in. Every single lot in our subdivision is built-out, and there's boats every single inch of a canal, and there's just -- There is nowhere for -- I mean, my god, the poor lobster, and I know my neighbors go in and out, and they don't all catch lobster, but it's -- That is -- I mean, that would be probably one of the things, down the road, but I think lobsters are lucky, and we have less traps, for one thing, and more people, but maybe they have to consider maybe some lower amounts of lobster, with time, recreationally, or something. I don't know, but we need to do something, and we certainly don't need casitas added to that.

MS. STAFFORD: I have a question about the recreational catch in 2020, and it seems like that would have been -- There would have been some statistics on that by now.

MS. WIEGAND: I believe we just got the most up-to-date recreational landings, and so let me go ahead and pull up what Tom Matthews graciously put together for us. You've got the last two lines are going to be your 2020-2021 season and your 2021-2022 season, and so I will highlight them right there. Your total recreational landings are this column right here, and so that 1.6 in 2020-2021 and very close to 1.6 in 2021-2022. 1.6 million pounds.

MS. STAFFORD: Well, that's -- I'm not surprised, because there were an awful lot of people down here, because it was COVID, and they wanted to do something, and they could get out in the sunshine, and it seemed like it was really crowded out on the water, and so, yes, that kind of reflects what I would have expected. Thank you.

MS. WIEGAND: All right, and so I'm going to move us down to sort of the next chunk of questions, and these are the social and economic influences, and I know you all have talked a little bit about this, with the challenges of getting crew, and the changes in prices of lobster, especially when compared to fuel, but, again, sort of, for the commercial sector, we're looking at how that price, and really demand, for lobster has changed, and then how important spiny lobster are to sort of your overall commercial fishing business, and then, from a recreational standpoint, whether you're seeing, you know, an increase in people interested in participating in the recreational fishery, and then, sort of stepping away from the individuals and thinking about it more from a community standpoint, what communities are really sort of reliant on the spiny lobster fishery, or have really been built around the spiny lobster fishery?

We know, especially down in Florida, changes in infrastructure are becoming increasingly common, and sort of how that is affecting spiny lobster businesses and how fishermen have been able to adapt to some of these sort of broader changes, particularly when thinking about things like Irma, which you guys have talked about, COVID, which has certainly changed businesses, as well as the tariffs that I know have had a pretty big impact on the spiny lobster fishery.

I know you've already discussed it a little bit, but, if there's anything else you guys want to add to sort of the more social and economic influences that you see affecting recreational and commercial spiny lobster harvest.

MR. DEKLE: In the economic sector, the little bit that I've seen in my first seven or eight months there, several different things in this area, and not necessarily in the order that they're written, the infrastructure for the docks, the marinas, fish houses, and crew availability, and we've touched on that just a little bit, but, to kind of give you a little bit better idea on that, we have several fishermen

that have boats with a captain, but they have no crew, and so they can't go out and fish, and so they have traps that are sitting and doing nothing, and a few of them may have a crew, but they have a boat, and they don't have a captain they can find.

We had a couple of guys that would have preferred to have gone out and fished more days than what they were able to, and part of that was due to the lack of crew availability, or they could get a crew, but the crew guy lives on the west side of Big Pine, and doesn't have ample transportation, but I think, also, with that, a little bit, and that's a discussion for different things on a different day, but the one big word, and Gary hit on it several times, was "affordability".

\$2,400 a month for a two-bedroom apartment, and nowhere on this planet is that affordable, not for people that work for a living every day, and that's just not like that, and, somewhere along the line, Monroe County and the Keys as a whole is going to have to address that situation, unless we're going to look at putting in some type of a high-speed rail system or something to bring people from Florida City and Homestead quickly and cheaply every day, that you can get them there at five o'clock in the morning, and most of the stuff is just not going to be a viable alternative.

The participation, I think, right now, we're seeing a little bit of a swap-around. We're seeing some folks that have been in the industry for quite a while that have decided to start gradually moving themselves out, and we, thankfully, have some very eager and aggressive younger guys that are coming into the industry that are wanting to expand their trap basis, and that is good. We have a little bit of a changing of the guard, and it's great that the folks are getting an opportunity to work with each other and pass on and share knowledge and do some coaching and teaching along the way.

What communities are dependent on? I would say the bulk of the Keys positively is dependent, to a pretty big extent, and that was one of the things that we saw last week at the stone crab conference as well, was how important the fisheries in Florida is, that we are one of the top eight producers in the United States, and not just in the State of Florida, and this is a huge, huge industry and fishery, and one that we all have to work together to try to make sure that we maintain it and keep it going forward.

Fishermen and communities, they're adapting, to the extent that they can, with, again, going back to the housing and the availability and accessibility of the waterfronts and how well will the fishermen and the fish houses, going forward, have the ability to maintain the waterfronts, or will they gradually be pushed out, little by little, to the recreational and the real estate development side of it, and I have to agree with Gary. I don't think that casitas is the way for this industry to go. I think that's a recipe for disaster.

The impact of Irma, you folks have seen that all first-hand over the years, and certainly some very interesting and a few facts that are a little disturbing on seeing some of the nursery grounds being affected. Nursery grounds are critical, and estuaries are critical, to any and every fishery. If we don't have them, you don't have a fishery anymore. It's going to take a long time for nature to let them rebuild themselves from that.

COVID, COVID has positively had a dramatic economic impact on us, and a lot of that, in this past year, that -- Gary, please correct me if you see differently, because you've been involved

directly in this part for a long time, was the impact that it had from China, and China was repeatedly being shut down and locked down.

No product was being allowed in or out of their ports, and you had multiple and numerous containers of product already on the water, and the ships would come in every day with more and more product, trying to be offloaded into the ports, and they wouldn't take it, and so you had all this product stacked up and waiting.

You missed windows of opportunity with the Chinese New Year and the wedding and party season and some of the other factors of when the Chinese have a tendency to buy very heavily, which is good, because that pushes the demand up and keeps the pricing up a little bit higher, but, when all this stuff started to backlog on us this year, the end result that we saw, towards the tail-end of the season, and even after the end of the season, was the market was going down, because, once any of the ports started opening up, what they realized was they had more product sitting in front of them than they knew what to do with, and so then they basically just -- They turned it right back around.

Now they didn't want to buy anything else, or, if they were going to buy, they wanted to drop the price by eight-dollars a pound, and most folks are not going to be in a big hurry to sell product at a big loss, and so it affected a little bit of the catch effort and the packing effort and what was being shipped and where it was being shipped to.

This year, we'll have one other thing that we still have to see a little bit more of, of what's going on with Brazil, and that could potentially have another significant impact down the road, with Brazil changed their law this year, to where they are now like the State of Florida, and the boats in Brazil can no longer make tails at-sea. They can only land whole lobster.

What we don't know is what is the infrastructure in Brazil, and do they have the ability, do they have the manpower on shore, to maintain and try to be a very heavy player in the tail market that they've been for decades, or will they back out in frustration, if they don't have the proper manpower and the fish houses on land to handle that part of the business, if they just say, you know what, we can't do that, and so let's just pack whole raw and sell it to China, which would flood the market with even more product and drive the prices down even more, and so I think that's a little bit of a concern that we all have to watch, and then, whatever we end up with, how much of a catch we get in Central America will affect us a little bit, but a little bit of an initial thing is like we've seen here.

I went with my wife and daughter, about four weeks ago, out to Alligator Reef, and one of the things that I saw that surprised me -- I wasn't just seeing some lobster around here and there, but it was one o'clock in the afternoon, and the lobster were out crawling all over the bottom, and it was like they didn't have a care in the world. They were everywhere. We want to have a lot of a good thing, but we don't want to have too much of a good thing.

MS. STAFFORD: That's what we witnessed as well. I was amazed that the lobster came out to check us out, as we were swimming over, and I'm like, well, you better get over that quick and learn a better way of handling it, but they were out walking around in the middle of the day, which was really quite something.

I just -- I will follow-up, and, I mean, that's really interesting about Brazil as well, and I wasn't aware that that was happening, but, just going back to reiterate, we actually, a few years ago, were negotiating to use that same Stan Mayfield grant to tie-up the property where we are now, the old Gulf Seafood property, with the county, and they were in final negotiations, and we were so close, and then it got sold right out from under us. I mean, we had formed a fishing cooperative, and that was going to be the future of fishing in the Lower Keys, and this was for all the next generation, and I was so excited about it, and then it just dissolved out from under us, and so I'm really glad that you got to use it, because there wasn't enough money to really do anything big, and that was the problem. The political will wasn't there with the county to secure our deal, and so we've been sold to a hotelier, and our future is unknown.

I think this is one of the other big shifts that I have seen. A few years ago, when developers became creative in buying up trailer parks and calling it transient rentals and transferring those rights to suddenly make new hotel rooms, where I thought we had a moratorium on hotel rooms, because we have a limited infrastructure, and they have created a way around that obstacle.

Then they basically take those units and say they will build affordable housing somewhere, and then they're so far behind. I mean, their hotels are going to demand about one person per room, and they need a lot of staff for each one of these hotels, and they're not able to build the affordable housing for their own needs, let alone replace what was there, that those people were working in all the industries that are already existing, and so we're just -- It's never been affordable.

I have lived here since the early 1970s, and it's never been affordable, but it's only gotten worse, and, like you said, \$2,400 or \$2,500 or \$2,600 or \$2,800 a month for rent is not affordable. It's not workable, and so I think this is --

MR. NICHOLS: What Mimi said, there on Conch Key in particular, and I don't want to interrupt, but the same thing. I'm charging \$2,000 a month just for a regular house trailer on a dry lot, a little fifty-foot-by-sixty-foot dry lot, and, my mates, they can't afford that, and so I keep them in little trailers, and they're sleeping in the fish house. I have nine crewmen right now, and I have them sleeping in the fish house, what used to be the fish house, and we put little rooms into it, and we've got the trailers, and we've got them stacked on top of each other, and they're sleeping in a sailboat, wherever they can get a place to put their head, and we're lucky to have them at all.

I pay really good money, and I think that's another thing. The pay that we have to pay a mate used to be \$150 a day, and it was a hundred dollars for a long time, and then \$150, and it went to \$200, and now it's like around \$300 to get a mate to work on a boat, and fifteen-dollars an hour, and it used to be twelve-dollars or thirteen-dollars an hour, and now it's fifteen-dollars an hour, and sometimes, if a guy has been with me a little while, you're looking at twenty-dollars an hour, and it all comes off of how many pounds of lobster you catch, how many fish you catch, whatever.

I kind of thing the makeup of our fishery is going to be more of the small guys. Everyone said, oh, the big guys are going to take it over, and I personally see more value added -- My daughters and my sons-in-law and all that, they keep wanting to get more, and I'm saying, wait a minute, and you might be better off -- Like I'm telling Eddie, who fishes for Scott, and I said, Eddie, I think you need to get to a number where you fish with one boat and you can handle it if somebody doesn't show up and you've got two people and you can work.

I mean, I'm kind of sitting up where -- I've been on the boat seven days a week for the last three years, because my daughter had babies, and she hasn't been able to work, and so I'm working harder and harder and harder, and so something has got to give here, and so we're hopefully going to -- Another thing going on here, with the processing facilities, like you're saying, the place down in -- The Gulf Seafood got sold, and it's turning into -- They're going to keep a small spot for fishermen, and that's a giant area, with a lot of fishermen displaced, and it's only a matter of time before Peter Bacle sells that place, and it's going to be a tremendous amount of money.

Key Largo Fish sold, and they have the restaurant that has increased, and got real major, and everybody wants to go there, and so the trappers -- There is very few trappers there, and there's a few lots still in Key Largo, but I have several friends of mine, like Gary Sands, for instance, and he's the oldest lobster fisherman I know that's still left in the fishery that fishes still full-time, and he's -- I think he's seventy-seven or seventy-eight, and he's a really great friend of mine, in Key Largo here, but his property is worth a gazillion dollars, and I'm sure he's, you know, not that much longer in the business, and so that's going to become recreationally sold.

The same thing with Conch Key, and that island is a commercial fishing village, the only one in the Keys, and I don't know if any of you are familiar with the Conch Key, but that island was zoned, and, back in the day, Pam Martin, who used to be the president of Organized Fishermen of Florida, we did seafood festivals and stuff in the Upper Keys here, and she was a big part with Billy Moore, Pam Martin, and myself, with George Garrett, and we did marking out areas for commercial fishing, and we had designated fishing, and we called it CFSD, commercial fishing special designations.

The island that I'm at, where I keep traps at, is a CFSD 10. When I stop fishing, when I go out of business, no one else can go in there, and I'm grandfathered in, and so that's going to be gone, and the areas on Conch Key already -- The lots that are already -- They're all zoned, that whole island, every single lot, every single house there, can have traps. When I bought the fish house, I said, this is a great spot to have a fish house, and we had thirty full-time commercial fishermen on the island. My dad worked with us and ran the fish house for me, along with my wife and my daughters.

Over time, there is only maybe two houses now left on the island for the commercial fishermen. The rest of those houses, that are little conch houses, falling apart, are selling for a million dollars, for a sixty-by-a-hundred lot, and people are leaving, and there is nowhere for them to go. You know, Keys Fisheries -- I mean, I'm looking at they just sold Casamar, another fish house that's been there forever, and that property sold. Now, my friend Ulysses, is still going to be able to keep his fish house going there, but how long, because that money that gets paid for rent isn't going to be near what it is for -- You're talking about fish houses, and there's not very many.

Like Carlos Seafood, and he's one of the big buyers, along with Keys, and they have a place in Miami, and those guys -- I can kind of speak more for Carlos, because I split my catch between -- I have actually diversified myself, because of the problem with China, and I've seen in coming, and so, for the last two years, since the COVID, I decided to make sure that I had my domestic part, because I was stuck with all live lobsters, and we would have been up the creek without the paddle a lot of times in the last two years, and so I've sold half my product, every other day, between Carlos Seafood, who has a good domestic market.

The good news is, domestically, the lobsters are increasing. A tail that last year -- I sold a lot of lobsters, and I don't know if you've seen the little ads in the Keys, but I put a year-round sale of lobsters, and I always put a picture of my grand-daughters, or my sons-in-law, or my daughter, or my dad or myself or whoever with lobsters and stone crabs, and the -- I usually sell lobster tails even in the summertime, and I usually can buy the lobster tails back, and there aren't any lobster tails to buy back. The price of the lobster tails that we can buy though, the last couple of years, would be fourteen or fifteen-dollars, and that was two years ago, for fourteen or fifteen-dollars for tails.

We're looking at thirty-dollars a tail, or twenty-nine dollars, and I don't know what your prices are right now, but that's -- I believe it's twenty-nine-something, and so that has doubled. The fishermen price on the lobster, at the end of the season, even with the live, the domestic price should have been ten, and we were getting around eight, and I think some people were getting six, and I don't know what Keys was exactly, but it was like eight or nine-dollars. That was pretty tough.

The year before last, even with COVID, and even with the market being a little bit weird, we were at least at twelve-dollars, twelve or thirteen-dollars, on my live, and, this year, we're looking at -- You get below ten-dollars right now, with the cost of doing business, you're not going to make any money. The people that are here are going to make money, but, if you need a motor for a boat, or you need anything, you know, it's going to be tough, and so that's some of the things that we're battling, and that all goes back to the economic changes.

I'm sure all the businesses -- I don't know if we ever solve anything, but that's the one big deal what we have to change, and there's only -- I guess less fish houses is going to be the way it is, and so the guys like Keys Fisheries and Carlos Seafood is going to be integral to staying in business, because there's nothing else, but there's also got to be a place to put the trucks. Where are you going to put them, because all the waterfront property where you would want to put trucks is gone. A dock? You can rent a dock for whatever, and, in my fish house, I'm still not totally done with that Mayfield grant, and they just take forever and ever.

I can see -- I have already thought, three or four times, of just -- I've had three contracts, and I kept them online, and I finally got rid of them, but I'm still tempted to sell the place, because it's still just a world of paperwork, and I still haven't got the appraisals back to tell me that they're going to pay me what they said they're going to pay me, and so who knows if this is going to actually work.

It took the Governor -- The Governor delayed things, and it took two more months for the Governor to come back to sign-off, even though it was unanimous from the board, and he just decided not to, and so I had a buyer waiting to pay me \$3 million, and I sold it to them for two-and-a-half million dollars, and I'm waiting, and I lost my three-million-dollar buyer, because I'm waiting on him, and it was supposed to be on February 9<sup>th</sup>, and that's when my contract was for the 20<sup>th</sup>.

When he didn't sign, and, oh, that's no big deal, I lost a half-million dollars, no matter which way you slice it. That guy went down the street on Conch Key and bought a little house, on a little lot, and paid two-and-a-half million dollars. I have 1.7 acres and a thousand-foot of waterfrontage, and I'm giving it to the state for two-and-a-half million.

They're in no big hurry to get it, and they still may not get it. I may sell it, and I don't know, but I have nowhere to go. I don't want to move my stuff. I want people to be -- It will be a place, for perpetuity, for my children and my children's children and the people of Conch Key and everyone to have a place to put traps and boat and to fish. We'll see if it works. It's called the Islamorada Working Waterfront, is our non-profit that we organized.

MS. STAFFORD: Well, I hope you're successful, because that was the whole point of that grant money, was to try and preserve it, and we went up to see the folks up at Port Salerno, to meet with them. I mean, I think that's the only other really successful working waterfront preservation area that exists in the state, which is really a shame, because this is such an important heritage for the state, and there's so little government involvement in protection.

I mean, I look at the farmers and the help that they get, and, I mean, we're producing food for people, as well as economic benefit, and it's just disappointing that there isn't more support from all the levels of government to enable a healthy fishery.

You know, I will just go back to one of the things that you were saying about the mates, because this is -- We're right at a point where I'm underneath the boat, and Simon is underneath his friggin' boat, grinding and painting, and I finally had to walk away, yesterday, because my neck wouldn't work anymore, and you think, you know, we're -- Last year, we ended up just hiring people left and right, just anybody to keep the thing running, and we had a couple of guys that -- You know, they were new, and they didn't really know what they were doing, and we tried to make sure they did, and darned if we didn't come in with shorts and some small claws, and, I mean, it's awful, and it's terrifying.

My son was just terrified, because he -- We try so hard, and we stay on top of it so well, but you can't be everywhere on a big boat all the time, and, you know, that is one of the biggest fears, is that, you know, you, as the captain, are going to be the one that's going to pay the price for that, and so we need to be able to have qualified people who know what they're doing and can stay on top of it, and that is -- That's a huge limiting factor.

I wish there was an easy solution, and it just seems like, with the way the real estate has sold, and, just about everywhere in the Keys, so many properties that were family homes, and not very long ago, are now vacation rentals, and so it's not even just the trailer parks being bought up, and it's like your situation on Conch Key. We had people -- We had to rebuild after the hurricane, and we were just moving our furniture in, after three years of getting this thing rebuilt, and people are already texting me that I want to buy your house, and I'm like, where am I going to go? I mean, this is it. This is my last stand for my family. We're all going to pull this together in one house, because we both lost our houses, and it was the only way we were going to pull it off, and so you buy me out, and where do I go? I leave the Keys, but that's what has happened.

I mean, very few of my friends are still here. It's just a whole new group of people, and a lot of them don't really know too much about the Keys, or the history, and they don't know much about the water, and it's concerning. I mean, we need to do some outreach and education with people, to help them understand what they're buying into, that it's a pretty special area, and it needs consideration. Anyway, I don't know, and we keep giving you more than you want, but COVID has hurt, and tariffs have hurt, and Irma -- You know, if we weren't stubborn, we wouldn't be here anymore. Thanks.

MS. WIEGAND: All right, and so -- One more?

MR. NICHOLS: Just one last question, and how important -- As regulations have come, and you're asking -- Among the species, you're talking how important are spiny lobster, and the one thing about spiny lobster is it's the most important to any commercial fisherman you ask in the Keys, and I don't care what they do. It's the most profitable, and probably the easiest, least costly, of fisheries.

The stone crab fishery, to leave the dock, it's going to cost me about \$2,000, just to start that boat up to go crabbing, and I'm going to have to use a thousand pounds of pigs' feet, and I'm going to have to have a three-man crew, normally, because we move our traps, usually, and we move about 400 traps a day, or 500 traps a day, and we pull about 600 to 800 traps a day, and so it's a very costly fishery, and the bottom line isn't -- It's something to keep the guys working through the time.

Over my fifty years, I used to go deep-dropping for grouper and amberjack, and I made quite a bit of money, but I really, probably of the most enjoyable fisheries that I've ever done, I would rather go fishing, and even if it was just catching a yellowtail or deep-dropping for grouper, and it was really phenomenal. Amberjack, in its heyday, was a lot of fun, and we made a lot of money, but I think our commercial fishing -- We were behind the eight-ball, with the South Atlantic, getting that regulated.

I don't know what happened to amberjack, but they just aren't coming back, and they still haven't come back, but there aren't a lot of fisheries for fishermen to get into, and so you have lobster, if you're going to be a commercial fisherman, or you're going to have to be a part-time commercial fisherman, which may be another place that we may go.

We may go with some people that are going to fish a thousand traps, or 500, and it might be some mom-and-pop places, if they have a place to put some boats and traps, or the stone crab fishery is the easiest, and I do see a lot of the younger people, and even little Ernie Paton, doing the stone crab, because the certificates are still fairly low, and it's not that hard of a fishery, and the stone crabs are getting so valuable that you can fish on a fishery that probably is catching a quarter a pound of crab a day, but you're a quarter of a pound of a forty-dollar jumbo claw still is going to give you ten-dollars a trap, and so that becomes you can pull a lot more stone crab traps in a day than you can lobster traps, but, the offshore fishery that I fish, I don't produce that many of the jumbos, very few of them, and probably -- Well, not even probably, but probably 3 to 5 percent jumbos, where I fish, on a season.

At the beginning of the season, we might have 25 percent, right off the get-go, and so that's it, and, I mean, as far as it goes, and, without lobster, our commercial fishing industry kind of ceases to exist in south Florida and the Keys. The shrimpers already left, obviously, when Key West -- When the ports left, and Key West Shrimping left, and I used to buy all of our shrimp, when I had the fish house open on Conch Key, and we don't buy from anybody there. The fish house that we have there is only for our family. We don't buy anybody's catch, and we charge dockage, and they sell whatever they want to sell. I am not in the fish buying business anymore.

When I bought the fish house back, and I sold it to Jim Hansen, back after Hurricane Wilma, in 2004, I believe it was, and I financed it for a couple of years, and he went belly-up, and I just got my paper back and paid him exactly what I sold it to him for, and so, without lobster, there is not going to be commercial fishing, other than maybe some of the small guys that do the yellowtail.

The neat thing too is some little guys, like Ernie Paton, and some of these guys, that fishery has become super valuable, okay, and yellowtail, right now, is, you know, five-dollars a pound to these guys, and they catch a couple hundred pounds, and it's not bad, but they're also spending quite a bit of overhead, because it costs for the bait, and you're having to power chum, and you're costing, you know, \$300 a day for bait and stuff, but we really are limited.

We don't have the grouper fisheries, and we don't have a lot of -- The snapper grouper fishery is limited by numbers of people and by participants and by production. You've got to fish on something that you can produce and make money on, and so that's it. So lobster is it, stone crabbing and lobstering.

MS. WIEGAND: All right. Well, I've got a proposal for the group. Why don't we take a ten-minute break and come back at 10:35, and we'll try to roll through these last few questions before we break for lunch, and so ten minutes. Is that good for everyone? All right. At 10:37, we'll be back.

(Whereupon, a recess was taken.)

MS. WIEGAND: All right, and so we're going to get back rolling and pull these questions back up, and we've sort of got two main sections left, both of which you guys have touched on a little bit already, but we'll start with management measures, and, broadly, the question is are there any management measures that the council should consider modifying, adding, changing, removing, whatever, for the recreational or the commercial sector up through North Carolina or down into Florida, sort of anything that you're seeing going on in the fishery that you think warrants some kind of change in management measure, and the council would be interested in hearing that.

MR. SMITH: I've got something for North Carolina, and it might apply to some of the more northern-ish states, outside of Florida, but we have -- I think there's an opportunity to have a commercial sector where we are, but the framework is structured that it's not viable. If you want to sell commercially in North Carolina, you can go through all the processes and get all your federal permits and all that, but you have no more access than a recreational person, and so you get no increase in limit, anything like that, and that shuts it down completely.

I've got friends that run dive charters, and that's the only viable way to use our fishery, and it's so deep, and it's so far out, and that -- On bad weather days, they'll go out, and they have their commercial license, and they'll go out, when they can't take customers, and they'll do some spearfishing and take their two lobsters, and, you know, make a day out of it, but, the way it's structured now, they've paid all this money, and they're not afforded anymore access to the resource, or benefit, from doing that, and so there's no reason for them to do it.

We have a pretty robust population, and kind of the framework is all in place to kind of move away from that model, and they are required to report everything. You know, a lot of them are -- Not only are they selling commercial, but they have their dealer's license, and they're doing everything

like single person, and they can -- Everything is tracked, and we can get a better assessment of our stock, because I don't even know if there's a great stock assessment for kind of North Carolina, Georgia, South Carolina. I don't think we have that information, and I don't know if anybody is even looking at it.

You know, Florida is kind of its own thing, and, like I said, I just think there's an opportunity to utilize the resource and make lobster more important in North Carolina than it is now. Right now, it's just -- It's there, and it's cool, and we can get really big ones, and there's like a trophy aspect to it, but, commercially, it's not there, and it's kind of one of those things that I feel like, if it pays, it stays, and so, right now, it's not paying anybody, and so I think there's a lot of opportunity there that can be looked at to better utilize the resource we have and not to a detriment, because I would suspect that there is a chance that -- It could be negatively impacted, since we're a little bit further north, and the growth rates are a little bit slower, and our age class is a little bit older, but, right now, it's very abundant, and I just think we've got to find that balance to better utilize it.

MR. NICHOLS: Do you want an increase?

MR. SMITH: For recreational and commercial, two lobster per person per day.

MR. NICHOLS: I mean, you're telling me -- I think, with the global warming and all that, and the change in environment, obviously the lobster -- The percentage of lobsters is increasing probably as the water heats up and whatever, and you might have a little better growing rate, and it kind of sounds like maybe -- Is two enough for you? I mean, I don't know anything about your fishery, but would you like a little bit of an increase, because I don't think there is a biological reason that you stay down at two, and maybe you guys could go to four, or something, so at least it -- Or three.

MR. SMITH: Without having good numbers like on what the stock is like capable of actually supporting in that region, it's a little bit hard just to throw out an arbitrary number, but I do think that there is -- There is a hang-up between recreational only getting two and commercial only getting two. You know, it's why? You know, I do think there's an ability to harvest more. What that number is, I'm not quite sure, but, you know, if the commercial guys are out there, they're not going to -- It's not worth their time to go forty miles off and strap on a tank and go a hundred feet down just to get two lobster. It's an add-on to something else, is all it is, and they'll bring back their two, and then it will be fifty-dollars a pound, or whatever it is, you know, if they want to make it work.

MR. NICHOLS: We're seeing a lot more lobster even up in that Jacksonville area, and I don't know if it was Richard Burton, Robert Burton, or somebody that was on this council a few years ago, and was that Robert who was from like Jacksonville or something? It was somebody here that spoke, and he was telling us about -- He commercial dives the lobster, and was catching quite a bit, and it sounded like it was pretty profitable. On a tank of air, he was catching a hundred pounds or whatever at a time, and so it would be not unlikely.

You know, considering that the South Atlantic Council, and the councils, are based on the Magnuson Act and the best science available, it sounds like they need some science, and you need at least -- It sounds like you have some places that probably would be good baselines, like your bridges and things, to at least get some researchers to look at that, and, certainly, if you're going

to have a commercial fishery, two is never going to be enough, and, if you're in Jacksonville, what's the difference of being a little bit north into Georgia, honestly, and so it seems like it's time, to me, and I don't have anything to do with you guys, but, if I was -- There may be a place for some commercial fishermen in your area, and there might be a place for a little increase in your catch, and I don't know, but, if you're in Jacksonville and catching all you want, and then you're in Georgia, on the line, and it seems like there's something that could get done.

MR. SMITH: I think there's just -- We just need to do a better job of compiling the data. I mean, we have, I don't know, an untold number of divers out there looking at these things all the time, whether they're taking them or not. We have hook-and-line guys catching lobsters, and then we have the few people who are not targeting them commercially, but they are commercial fishermen that happen to come across them every once in a while.

A better understanding of actually what's going on is definitely, I think, warranted, and the resource is there, because there is plenty of dives that I've been on where you could fill a bag up, easy, in one dive, and that's not to say that like we should be doing that, or there's that many, but I certainly see the opportunity.

MR. NICHOLS: It seems like -- I suggest, and I don't know if we need to make a motion, or put it on the table, but to at least get some surveys out to dive shops, to newspapers and whatever, and get some information from the users on what they're seeing, I guess, and then hopefully you can get some scientists, or biologists, somewhere to do some kind of study, in Georgia and South Carolina and North Carolina, but, obviously, that's -- I mean, if you have a product like you're talking about, commercially, I mean, a food resource, and, I mean, we can't get any lobsters for the restaurants down here in the Keys right now. You're not going to find a lobster, that I know of. You're not going to find a spiny lobster tail.

We can't get them from any of the other countries. There aren't any, and so, if there's somewhere else that we can get them, and we're having them in our own country, maybe there's something there, but I have no idea. You don't want to screw it up before you start, but if you manage it properly --

MR. SMITH: Well, that's another -- It could be a benefit, because our season doesn't have a closure. You know, we're open all year-round, but you have the breeding period, and we're not allowed any egg-bearing females or anything like that, and the people who are harvesting them, from what I've seen, are very conscious about not even egg-bearing females, but, if they catch the females that have the spermatophore on them --

They're letting those go, you know, eggs or not, and they're very protective of the resource we have, because we know we have an abundance of them, and they're doing great, and we also know they're older, and our age class is older, from what we see on the bottom. You know, it's not uncommon to not really see the smaller age class offshore, and a lot of the lobsters that you'll catch are over five pounds, and so the people are protective over there, but they also feel like they're being restrained a little bit, on the commercial side of things.

MS. STAFFORD: I would be very much in favor of some additional data collection, to see what's happening with the population. I mean, if I'm correct, I don't think you're doing a lot of local recruitment. I think anything that is produced up there is pretty much lost into the Gulf Stream,

isn't it, and so you're not going to be losing recruitment stock, and it would seem like it's definitely worth looking at, to see what's happening and what availability there is and see if it could be expanded to benefit.

MR. SMITH: Yes, and, like I said earlier, we're getting -- Well, I'm seeing at least the smaller juvenile lobsters inshore now, and I didn't really used to see that. We see them when we're looking for stone crabs or something around a bridge, stuff like that, and they're not extremely small. They're maybe like the size of your hand type of thing, but I never used to see them inshore, because I think it would just get too cold, but they're starting to show up now, and you see a lot more of that, but it would be nice to figure out if there is a different northern kind of life cycle swing of things than how the population kind of cycles through in Florida.

MS. WIEGAND: I'm going to jump in here, real fast. Sort of two separate things. I highly recommend that this AP -- I love that we're getting, in this fishery performance report, the importance of gathering more information on spiny lobster, particularly any differences between what happens in Florida versus what's going on in North Carolina and some of these northern states.

There was a stock assessment that was conducted for spiny lobster, many years ago, and it ultimately wasn't approved, due to some of the complications with, I believe, international data, and working with the Caribbean Council as well, and because, like Mimi was talking about, understanding thus far is that recruitment, for the most part, comes from outside of Florida and the United States, and there have been some studies that suggest that there might actually be a small Florida population that is providing recruitment, but that's sort of one of the other big questions that needs to be addressed.

Secondly, the council does have an amendment on their docket, and it's currently sort of on hold, because of other competing priorities, and, unfortunately, the council can only do so much at one time, and so they have to set priorities, and this amendment hasn't been made a priority, but there is a spiny lobster amendment, sort of sitting and waiting to be worked on, that would allow -- It would consider allowing vessels in North Carolina, South Carolina, and Georgia that had a snapper grouper unlimited permit, and a spiny lobster federal permit and tailing permit, to keep a larger number of lobster, a commercial amount of lobster to harvest, and so, again, that's something the council has on their docket, and it's not been prioritized for the next year or year-and-a-half. If that's something this advisory panel thinks should be a priority, they can certainly, you know, recommend that to the council.

MR. NICHOLS: I just had a question of Tom Matthews. You know, with the global warming and all that, and, the studies we've had, I've been hearing the same data, basically what Christina was just talking about, coming -- They still don't know anything, and it's been forty years of sitting around here talking about pretty much the same data, and our lobster is getting caught from south Florida and going up and getting into -- Settling out into those waters.

It sounds like, to me, you're not going to have those small lobster if there isn't some kind of recruitment thing going on. You're not going to get that size unless they're settling out into Georgia and living, whereas they should be dying, and then I wonder if there's a gyre, maybe, that -- I don't know if they're doing studies with the current drift and all that, but, obviously, something

is going on. What he's talking about is kind of interesting, and so maybe there's -- Maybe you can explain the biological stuff, and maybe you know something we don't know.

MR. MATTHEWS: A lot of these studies have been done, and I would say it is really hard to study the lobster population in North Carolina. These are low numbers, and it is a fraction of 1 percent of the U.S.'s population, and even a fraction of a fraction of 1 percent of the Caribbean population. There are lots of recruits in North Carolina.

We put out this device that we call a collector, and lobsters settle on it all the time. By the time winter comes, they're not big enough to even migrate offshore, and so they're juveniles, and it's a -- When I say juveniles, I mean a one-inch-long lobster, and so they settle all summer, and they grow up, just like a handful of tropical fish, and then they die when winter comes, because it's truly a tropical animal.

The ones that are on the reef, we honestly have no idea where they come from. There could be settlers out there that grow up, but they're highly cryptic. They could be -- Lobsters love to walk, as we know, and so these could be animals that just walked up. A five-pound lobster, I know in the Florida Keys, is six years old, but it grew up in ninety-degree water. An animal at those reefs, that's growing up in seventy-degree water, is two or three-times older than that, and so I talk physiological age, because that's what we're studying here, but, chronological age, when you change temperature, nobody has ever done that study.

Some of the history is, for that two-per-person bag limit, fifteen years ago, when that was set, it was because it was a large recreational component in this room, and the commercial guys could have a good year, and then a couple of years without, and that's back to this recruitment thing. Recruitment, we don't understand it there, and there is a gyre, as Gary mentioned, that might hit, carrying lobster larvae from the Caribbean, and those lobsters take five or ten years to grow up, and then you get an abundant year.

Then you might have several years without, and so there probably will never be a consistent commercial fishery, but, again, I think, as both of you said, there is no biological value to this population in the lobster world. Ecosystem-wise, yes, they're doing something there, and this council, years ago, had decided that the opportunity to catch that lobster was more important than the availability to the commercial catch, and so that's some of the history of it, but you could provide money to do a study, and someone would take it. They're not going to give you a good answer. It's looking for the needle in the haystack to understand what's going on with lobsters up there.

MS. STAFFORD: I have a question about why the limit was set at two. Was there a biological reason for that?

MR. MATTHEWS: There was no biological reasons at all to the regulations outside of Florida. It was really based on opportunity to go and actually catch a lobster, and they, honestly, just sort of, out of a hat, drew that they thought that level -- That's really what the people in the room at that time wanted.

MS. STAFFORD: Do you think it's worth revisiting, or it's not worth the trouble?

MR. MATTHEWS: I would say this is totally a social study, social science issue. Ask what the people want and adapt to what they want. Again, there is really no biological imperative here. There is almost no chance that Florida egg production has anything to do with the Caribbean population, but it might, and so you hold onto that. There is zero chance that North Carolina lobsters have anything to do with the survival of the lobster population, and their larvae go nowhere. There is just zero chance of that.

MS. WIEGAND: All right. Well, if there are no other management measures to discuss, from a federal level, we've already sort of dived into these discussions about, you know, environmental, ecological, and habitat, talking about where the lobster are available and how that's changed, but one of the things we haven't talked about that is on this list is this spread of PAV1 and the extent that you all have any concerns about that.

MR. NICHOLS: I thought we had some concerns on that, but I remember, when Tom was going on the boat with us, and we were looking for those, and Tom would be the one to answer that, but I don't see those lobster still, too much of them, but I have seen it, but I don't see it getting any worse, at least from my observations, but Tom would be the one.

MR. MATTHEWS: Again, a huge question that we're working on. Erica Ross, over there, got her PhD on this, and she is reinitiating some of this. When she first discovered it, you would see 6 percent of very small animals, the size of your finger, with it. We sort of suspect that's always been the case. Now we're seeing very high infection rates, using DNA analysis and things like that. We generally -- Flat out, we just don't know. We think it's always been here, and we're more concerned about things that cause the spread of it, for example holding lobsters in containers for the shipping, for growth and things like that, and we think, in that situation -- PAV1 stands for panulirus argus virus 1, much like COVID-19 was just named after the year. It's the first virus we saw, and that's why it's Number 1.

It is probably not a concern for the commercial fishery, but, when lobsters are stressed is when this virus -- Often, when any animal is stressed, that's when viruses become more apparent, or become visible. The water heating -- Nearshore water is often warmer than lobsters want it to be. I have to switch to centigrade here, and thirty and thirty-one degrees is optimal temperature, and we're regularly getting thirty-two and thirty-three-degree water nearshore, and so we're losing nursery grounds. Will the virus reflect that, and is that one of the reasons the lobster won't live in that water, is because of these stress diseases start to pop out?

It is something we're actively doing. We monitor this every year. Honestly, we have not processed the samples in the last seven years, but we just created a contract to do that, and we are also still actively monitoring it. The Atlantic States Marine Fisheries Commission is funding aquaculture work, and so this is very important to aquaculture, but it's teaching us a lot about the ecology of this disease, also.

MR. NICHOLS: I'm glad you -- I was wondering about that, because it kind of -- It's been -- Like the last six or seven years, it just kind of went away, as far as hearing about it. It used to be a big concern, and I was wondering, and can you check -- I mean, the lobsters that we're catching, they're live, and they're in containment, and, I mean, we're putting sometimes 300,000 pounds of live lobsters in those containers, and have you been working at all with Larry or Keys Fisheries or anybody like that with contained lobsters?

MR. MATTHEWS: Yes, and Larry is a partner on a grant with us, and I would like to work with Scott a little bit more, too. With some work with Abigail Clark at Mote Marine, we have developed a technique called eDNA, and the “e” standing for environmental, and so we actually measure the water coming out of these tanks and see if the virus is present, and that’s sort of -- It will be a great way to understand, when we’re growing lobsters in captivity, and, again, for aquaculture, we’ll know if we need to sterilize it, or if there’s a contaminated animal, and then you get fancy, and you like split them in half and test it again, and that helps you identify the prevalence of it.

A baby lobster that settles -- A lobster has 300,000 eggs. Likely, none of those ever return anyway, and that doesn’t mean they’re wasted. It just means they’re food for everything else in the environment. When we get these little lobsters that show up here that weight two grams, only probably one out of a hundred of those makes it to the fishery, and so, even if we lose half of them, it’s very likely that there won’t be a signal in the fishery. There would have just been less food for little organisms to eat, and so it’s a big part of the food chain, and so absolutely there’s an effect there, but, as far as the fishery concerned, because so many little lobsters die naturally, as food for other things, we almost don’t see that signal. I couch that, and I can’t promise that.

Landings are down 20 percent in the last ten years. From 2000 to 2010, they were down 40 percent. Something is causing that, and we’re looking very hard to figure that out, and so, yes, total population and landings are down. Is PAV1 a player in that? Maybe, more because of the environmental stress.

MR. NICHOLS: On what Tom is talking about, you know, being out on the water pretty much every day, still, what I have noticed is, with the increase in the jewfish population, or the goliath grouper population, and they’re voracious eaters. The lionfish, as they were increasing, and we were -- You know, I have a pretty good lionfish market, even though it’s decreased geometrically over the last several years, due to -- Kind of like I keep using “Evolution”, the movie, and not that that might be it, and it was a dinosaur movie that I’m thinking of, but, anyway, the predators on those lobsters -- I mean, we stopped -- Basically, if you saw some really bad advertising for the commercial fishing industry of nurse sharks, in just some recent times, and, with Scott down there, and he knows about it.

Nurse sharks, being as the sharks are protected, and there is less -- I mean, less and less catch of sharks, and I think the sharks -- When we gutted shark, back in the day, and I used to use sharks for bait for my crab traps, because we used to net the sharks with a shark net, and we used to cut them, and there was the blacktips and the bonnetheads, and the bonnetheads in particular -- This is something that probably nobody even knows, because I used to be in the stab net fishery, back in the 1970s and early 1980s, and now we’re seeing the amount of bonnetheads and blacktips, and sharks in general, and there’s a dramatic increase, at least visibly, what I see out when I’m going crabbing.

I mean, you see the bonnetheads swimming all over the place out there, and there’s nobody catching them. We’re not using them for bait, and we’re not using them for food, and there is no one -- You know, the shark fishermen are getting pretty much regulated out, and I think this year might be the end of the shark fishing industry, possibly, and so the predators of those small lobster, between the goliath grouper and the income of the -- My lionfish are another thing.

When I find lionfish with lionfish in them, and I find lionfish with lobster, small lobster, in them, and I have found -- Which we didn't have lionfish ten years ago, and we didn't have -- The goliath grouper have been increasing, and mostly the smaller ones we see that we get in our traps, and we don't get real big ones, and so I think that's another -- Maybe that could be possibly a cause of why we're not seeing as many lobsters, possibly, and just we're not utilizing these other fish at all, and they're just out there, and so there's something eating them.

MR. MATTHEWS: Lobsters are food for everything. The fish that you do see, that you don't think about, like oyster toadfish, and you know them, and they live in the same holes as the lobster, and they are probably the biggest predators of lobster in the Florida Keys, and you've heard of them, but most people have never seen them. Shrimp eels, they don't just eat baby shrimp, but they eat baby lobsters.

Your memories, back in the 1970s and 1980s, you saw a goliath grouper population back then, and the lobster population was higher, and your landings were higher than they've ever been, and so I would just say there's not a correlation. Goliath groupers are great lobster predators, and you know that. Bonnethead sharks and nurse sharks are great lobster predators, and it's probably the dominant item in their food chain, but we also know those numbers used to be much higher, and that's why those fisheries began, and it really didn't change lobster abundance at the time.

I can't explain that. They're a predator. I think, once a lobster reaches that legal size, and even the bait size, that you put in traps, many of them are largely protected from predation. That's not true for goliath. Goliath can eat a big lobster, but the predation risk is probably not that high once a lobster is full-sized, three-quarters of a pound, and things like that.

MS. STAFFORD: Did I understand correctly that you said that there hasn't been as much study of the PAV-1 virus in the last few years?

MR. MATTHEWS: A lot of research was done, and it was very effectively studied, and we have continued to monitor it. We saved those samples, and so, in about 2014, we stopped processing them, simply meaning sending them to the lab to come up with the actual percent of these little lobsters that were infected, and that's work that we're going to do in the next six months, where we're just starting it right now. We quit processing those, because nothing was changing, and so we didn't think it was a risk. I still don't think it was a risk, but we've got seven or eight years of samples. Let's look at them and just make sure what we think we know is still true.

MS. STAFFORD: Okay. I thought, just looking at numbers too, that it seemed like maybe it had stabilized, and I don't see lionfish anymore. Are you seeing them still, Gary, the same numbers? I haven't seen any this summer.

MR. NICHOLS: The lionfish, it's pretty amazing. Back, what was it, probably ten years ago, I remember my dad and I actually taking the lionfish -- A little history of the lionfish, and, gosh, sorry, and I don't want to get a long subject, but, no, I'm not seeing near the lionfish that we used to see. I was catching as much as 600 pounds of lionfish a day, and, a lot of days, 300 pounds, and Dominic, from Duke University, she was on my boat for three or four years, once a week, and that woman worked her little fanny off, and we got to a rate where we were one-to-one lionfish to every other fish, which porgies and tomtates and little grunts and everything, and so we got -- It was really geometrically growing, and I'm going, my god, what a great thing.

I got my market going basically by -- When the researchers started wanting lionfish, we gave them lionfish, and then they were selling the lionfish that we were giving to them to study to the restaurants up in Key Largo, and I happened to be up at the fishermen's thing here, and I can't remember that -- Whatever the name of the place is up here in Key Largo, but, anyway, ironically enough, I go, well, darn, I'm starting to get fifty or sixty pounds a day, and so I took my dad with me, and we went to a couple of the chefs, and we started with Lazy Days, with the owner of Lazy Days, and we filleted the fish there, and we had them cook them a couple of different ways, and they were just fantastic, and it took off.

I sold -- I have never sold a lionfish under five-dollars, since the first lionfish came, and that was whole and ungutted, just the lionfish. I'm getting \$7.50 a pound now, and I can sell a million of them. I've got people all over the country asking me for lionfish, and I've got this great market, but I'm not getting enough lionfish, and so I catch probably -- If we pull -- In a day of pulling trawls, and I pull about 450 to 500 traps, and the lionfish that we catch are 95 percent -- I would say 95 percent of all those lionfish are in over a hundred feet of water that I catch, and I catch almost zero inside of that.

I might see -- You may see one in a wire basket trap, or a regular trap of some kind, and you might see one or two a day, if you're pulling on the reef between like sixty and eighty feet of water even, and I fish a lot of those sand runs between forty and eighty and ninety feet, but you don't get the lionfish. When you get into over a hundred feet, and you get out to 200 feet, there are still some lionfish, but not near as much.

I think what we've seen with the lionfish is something learned how to eat them, and they either ate themselves, because they ran of the food source, and we don't see -- I have bait cups in my traps, and I have recently taken them out and went with bait bags, because octopus get into the bait cups, and I used to sell reef fish, and, you know, I have a permit to sell reef fish, but I don't get enough reef fish, since the lionfish came, to even mess with it, and then, if you get an octopus in a bait cup, there is no lobsters in the trap, and so we kind of discontinued that, but the lionfish -- I am catching about thirty or forty pounds a day, out of 450 traps, which is still not bad, because that's still \$7.50 a pound, and that seems to have kind of leveled off.

We had a dramatic decrease, about four years ago, maybe right after Irma, for whatever reason, and, as much as they reproduce, and I have no answer, and everyone asks, and I honestly believe that -- I think schools of blue runners, or something like that, have learned how to eat those small lionfish, or some kind of a reef fish.

Some kind of fish that lives out in the deeper water has gotten into it, and it might be sharks, and it might be barracuda, and it's not grouper, because we don't have enough grouper around, and it may be the mutton snapper, because I have gutted muttons with lionfish in them, and there's a very big increase, I think, in the number of mutton snapper that are out there, but just not the legal-sized muttons. I think that's something I have noticed, from pulling my trawls, is there's a lot of -- Mutton snapper have really, really increased in numbers, over time, and that size being eighteen inches puts you at a fairly large mutton, and it's hard for a recreational person -- I go out with my family to catch a mutton snapper, and it's hard to get one, and I would think that hogfish would be probably up the road here, with the size increases, and, for whatever reason, I don't see a lot more hogfish, but that's what is going on with the lionfish.

It's, right now, in a holding pattern, and not a lot, but there's still -- I had a really bad time with those lionfish, and I've got pictures of several of my mates -- I had, one year, probably ten guys that I had to take them to the hospital, and one guy almost -- I mean, one guy had to get stabbed with an EpiPen. I literally made it to the dock, wide open, running from the reef to Calusa Cove, and, fortunately, we have a paramedic right there in Islamorada here, and the guy almost died, and he had a heart condition. It was real close to him being gone.

One other guy ended up getting an infection in his arm and got the MRSA, and they ended up -- He was in the hospital for probably six weeks, and they had his arm laid open from here all the way down, and the bags on it and all, and it's pretty bad. I mean, it can be bad. What I do now, and I haven't had any in the last ten years, or, let's see, six years anyway, but I give the guys a couple of Benadryl right away, and a couple of Aleve, and that usually works, if you get it right then, right then, and I will give them three Benadryl. I say just keep eating these Benadryl, because trying to keep an EpiPen -- I don't want to stab somebody and be sued for it, but I can give them some Benadryl, and so that seems to work. I have tried hot water and all that stuff, and so, anyway.

MS. STAFFORD: It was interesting watching the population. I mean, I don't fish offshore. I fish inshore, pretty much, but there were a few years there where they were really -- I was catching them in the traps, and I was seeing them. Any time I would snorkel, you would see them on top of the reef, being real showy. Like I never saw them in the Pacific, all the places I've dived in the Pacific. They have all moved over here, but then, when they started getting targeted by the spear fishermen, they started moving underneath the ledges, and so, if you ever see them, they're tucked up underneath the ledge, and so I don't know if it's behavioral, if they recognize that this is a survival technique, and they went underground, but I haven't seen a one this summer, in all the drifts, and it's been interesting.

MR. NICHOLS: Well, we dive the same patches for the dive days every year, and we spearfish some of the spots still, and there is still a few places you can get some fish that are legal-sized, but I actually was catching lobsters, the year before last, on one of these patches, and it's a little small patch, probably no bigger than between these tables here, and the lionfish got pretty aggressive.

I pushed them out of the way, and I didn't really want to mess with trying to -- I will kill them before I go, and we'll eat them, but we were catching the lobster, obviously, and that darned thing poked me in the back of the leg, and got me in the calf, and they don't feel good, I can tell you. You get an immunity to it, kind of like with a snake bite or whatever, because I've gotten stuck, and I have filleted a lot of lionfish over the years, and most of the guys that have worked with me have developed immunity to them, but, diving-wise, I still see quite a few lionfish on some of the --

Also, there is some habitat, like some old barges and old -- I guess we call them railroad cars out in Hawks Channel, and you see them more around that artificial habitat than I really see on the reef. Sometimes, like you said, if you're -- Unless you're down with a tank and looking up underneath the coral ledge, but not near as many as we did see. We used to jump in there and see thirty or forty lionfish, and you didn't want to go get a lobster, because we had to go spear all the lionfish first.

MS. WIEGAND: All right. Well, that's all we had for the fishery performance report, unless there's anything else that anyone would like to add, anything they feel like we didn't cover sufficiently this morning that the council needs to know while they're making management decisions and having discussions.

MR. NICHOLS: The last thing is, someday down the road, and, gosh doggone, if I put this on the public record, I will get my head probably torn off by a bunch of commercial fishermen, but it seems like, as time goes on, once we get down in numbers, if everyone starts worrying about the sub-legal thing in the traps -- I mean, obviously, we're down to a million traps, and our production is staying okay, and, if the wheel is not broke, don't fix it kind of thing, but, at some point, it seems to me, and over time -- I mean, escape gaps is a really bad subject to bring up, but we could use a measurement on the sub-legal lobster that we use to attract the lobster.

As the traps have been decreasing, and as the lobster shorts increase, there is really no reason, for attractability of a lobster, and this is for the young guys, the newer fishermen, that aren't attentive, or on the boats, to baiting the trap, and to use a bigger -- You want to keep a lobster that's closer to the legal size in the trap, and it attracts a more legal lobster. Now, if you didn't have anything, maybe use smaller lobster, but it seems, to me, that maybe a half-pound lobster, or something, whatever that size is, someday, and I'm not saying now, because we don't have an issue, but, if it ever does come to an issue, it seems like we could have a measurement for what we do use for attractants in the traps.

Possibly, at some point, and this is just one of the ideas, suggestions, for the spiny lobster fishery, and I know that people don't like this, but some kind of a forgiveness thing. We used to have a -- If the lobster is in a live well alive, obviously, those lobsters aren't being used to be sub-legal lobsters to be sold, and they're going to come back to the dock.

If a short jumps into the live tank, out of the live basket, the short basket, into the tank with the lobsters, and the marine patrol stops us, and we're going to end up getting these giant fines, there's a forgiveness for say 2 percent of the poundage that we have or something for mismeasured or something that accidentally jumped over, so that it doesn't always become an officer discretion kind of thing, and that would really help myself, as a captain, and probably the future captains, because, now, if you had them in a box, and they're going to the fish market, or on a truck going somewhere, then, yes, you know, go for it. The guys are wrong, wherever they come from, but, by the time they come out of the live wells at the boat, when we're draining the live wells, it seems to me -- It just could relieve a little stress, at least even for myself, because just like -- I'm so glad that Mimi said the same thing.

You're just stressed out, and you don't -- There is just human-error mistake, and the same thing with the egg-bearers. For god's sake, who is going to put an egg-bearer in your catch, and, when you take it out, you're going to freak it out and throw it back in the water anyway, but if there's somehow -- I don't know, and I hate to use that officer discretion, and it's such a broad thing, and you just never know who the officers are, and, if they don't like you, and maybe you're a bad guy to start with, and they're trying to find something, and that's great, and they can do it to them, but, for the people that are trying to make a living here, it certainly would be helpful maybe to have a little bit of a variance for lobsters, the mismeasured -- I mean, leaving the dock is one thing, but coming in in a live tank, and I'm just throwing it out there, and I'm just putting that on the public record.

MS. STAFFORD: I would back you up on that too, Gary, because that -- You know, the other thing that's happening is we have a whole new group of marine patrol officers coming onboard, and there's another thirty of them that have just been recruited, and half of them are still in training, and they are well-intentioned, but they don't have the history of the fellows that have retired now have, and they don't really know who is who and who you should be a little bit more heavy on, if you want to get a good result, and so it would -- Especially, as we've said, we're all suffering the same mate issues, and you can train, and you can observe, and you can oversee as much as you can, and still, you know, still something sneaks in or jumps over and, like you said, gets in the other tank, and it's not intentional, or you were just distracted and threw it in the wrong one, but, you know, it's a very small number, and your history has been exemplary. It would be a relief to know that we aren't subject to having our business taken away from us, after all that time, but it is -- We're held to a different standard. I see that all the time, too.

MR. NICHOLS: Exactly, and another thing too, and, Mimi, when we're out there pulling trawls, we're putting twenty-five traps on the boat at one time, and we have to measure the lobster, and we have to keep count of the lobster, and I've had the marine patrol get on the boat, and, fortunately, every time, I've been okay, but sometimes -- I mean, I literally, in two traps are going to catch -- At the end of last season, I would say two to three traps, and we're trying to clear them as fast as we can, to measure them and get them out and throw them back in the water.

If we put them in the grader box, we're going to end up with 150 lobsters in three traps, and you have to be -- So something, when you're pulling trawl gear, so that we don't end up -- I haven't, to my knowledge, had anybody getting caught for this, but it's not that they're trying to do anything wrong, and they're still measuring and trying to deal with what they have at the end of that trawl, and then we have to go back and count the basket of lobster, to make sure we don't have more than fifty on the boat.

We've got the trawl now baited with usually about two to three lobsters, and that's what we try to put in there, ideally, and, you know, sometime in that plane of time, it could be -- I think, as the trawls become more predominant, you can have a pretty big deal, and especially a lot of the guys now are fishing trawls in the shallow bays, where a lot of cutoffs are, and those guys are really at risk to having somebody stop, unless the guys have been -- We would like to have researchers come on the boat, have some of the marine patrolmen.

We used to, in the old days, take the marine patrolmen, and they had experience already, and they worked with us during trap retrieval. Nowadays, like you said, there's new people, and they don't have that on-the-job training sometimes. I mean, a lot of times, they will ask me about a horse conch, for instance, that you're allowed to have, and they'll be like, oh, you've got conch, and the lady goes crazy on the boat, and you've got conch, and she's calling people, and I'm like, these are horse conch, and I'm allowed to have horse conch, but you're not allowed to have, you know, queen conch, but, I mean, literally, there is some things --

I don't know what the answer is, and maybe I should be addressing that toward the State of Florida, to start with, but, since we're here with the South Atlantic, that's something -- That's the issues that we're talking about, and thank god we're able to use the lobster, and we don't want to kill them, and we've got the live wells, but it's definitely something to think about.

MS. WIEGAND: All right. Well, thank you, guys. I think that wraps up the fishery performance report, and we've gotten a lot of really fabulous information today that I think is really going to help the council as they move forward in managing this fishery. Going back to our agenda and overview, next up on the list is talking about those trap closed areas in the Florida Keys, and so I will give you guys, I guess, two options.

We can break for lunch now, and then come back and talk about these closed areas and then any of the other sort of FWC issues that you guys may want to have a discussion about, or we can push through and get these trap closed area discussions done and break for lunch and then come back and talk about the FWC stuff. It depends on whether you guys are starving and need to eat now or if you think you can hold it in there for another half-hour or forty-five minutes. I am seeing no one say, oh my gosh, if I don't get food now, I'm not going to be able to participate, and so let's talk a little bit about these lobster areas.

This was the document that was in your briefing book, and, really, it's just sort of a brief summary of what happened in Amendment 11 and the history of why those closed areas exist, and so the Endangered Species Act requires that federal agencies ensure that any action they're going to take won't jeopardize the continued existence of threatened or endangered species or habitat, and this does include corals.

Way back in 2009, a biological opinion was conducted for the spiny lobster fishery, and, while that fishery concluded that the trap gear fishery could continue, it was noted that it was likely to adversely affect sea turtles, smalltooth sawfish, and, key to these closed areas, elkhorn and staghorn corals, and so, as a result, Amendment 11 to the Spiny Lobster Fishery Management Plan created these closed areas, in order to reduce the likelihood that commercial traps would be coming into contact with colonies of that elkhorn and staghorn coral.

There are sixty closed areas, and they're all straight-line boxes around those species of coral, and they include approximately 500 feet of area, and they're like -- The sixty areas cover approximately 5.9 square miles throughout the entirety of the Florida Keys, and I will pull up that interactive map again in a second, but the reason the council is sort of bringing these areas back up is because of the review they did back in March of 2020 of the new draft Florida Keys National Marine Sanctuary restoration blueprint.

During that review, they had discussions with Florida Fish and Wildlife about needing to sort of reexamine some of those areas that were closed to traps, with the understanding that the hurricanes that have come through in recent years might have impacted the corals, and the council would like to make sure that these closed areas are in the correct spot to be providing the most protection to corals, and perhaps there are areas that are currently protected that no longer have coral and could be opened up to trapping or other areas where you're seeing more coral grow that should be closed to trapping.

They wanted to have you guys have just a very brief conversation about, you know, your knowledge of those areas and whether or not you think they're still providing adequate protection to corals. Like Jessica mentioned, there's going to be a new draft of that Florida Keys blueprint coming out in the next few weeks or months or so, and it is highly likely that the council will again talk to the Spiny Lobster Advisory Panel, as well as the Gulf Spiny Lobster Advisory Panel, once that has been released, and so, for now, we're really just looking for you all to sort of have a broad

conversation about whether this is even something that needs to be addressed, and so, with that, I will open it up to you guys, to sort of discuss whether or not you think those are still accurately placed.

MS. STAFFORD: The blueprint will be released on the 12<sup>th</sup> of July, and there will be a 100-day period for comments before it goes back to the regulatory agency again for another review, and there will be some proposals, in there, I suspect, and we looked at so many different variations on the same theme, but I think there will be additional closures, and it probably would be valuable to have the information about what is currently present in these sixty areas before anybody makes changes, and it would be good to know what has happened, if there is significant change.

I think there will be a lot of information that will come out of the blueprint that would help guide decisions too, and so I think -- I don't fish in those areas anyway, and they're a little bit farther to the east, and so I don't have personal knowledge, and it's going to impact everybody up your way more, but I think, up until we get more information to base decisions on, I don't really have any changed opinion.

MR. NICHOLS: Mimi, are you talking about the -- Aren't you on the advisory panel or whatever for the marine sanctuary? What happened to that big area, like by Tennessee all the way to shore of Key Largo, from Long Key out?

MS. STAFFORD: We'll see.

MR. NICHOLS: You don't even know, from some of your workshops? That was just --

MS. STAFFORD: I know there were a lot of big areas proposed. What's actually going to survive -- I have a feeling they're going to be a little more conservative than some people would like, just because of the atmosphere, but I don't know. I am not privy to what's going to come out of this, what's going to flesh out, and so we'll have to see.

MR. NICHOLS: On this one, are we talking about -- We're not talking about any of the SPA areas, and we're talking about the unmarked closure areas that nobody knows about? Right there, it just puts up this gigantic flag that you need to fly, to at least put a flag on each corner of those areas. I spoke on this at the sanctuary in detail, and they're not marked. The lobster guys, or the trappers, don't know where they are, most of them, especially the newer guys. I have it plotted in my computers, and, in all honesty, I don't fish my traps on the coral, unless they blow into it, and so I have to sometimes tell some of the guys that --

Well, over the years, I've had to tell hundreds of guys that their traps are in the thing, and I will call them. There's no real enforcement on those areas, but the people -- The general public, with all the boats, I see them anchoring in those areas every single day. One just classic example is right at Tennessee Light, one of those little areas right in front of the light, and I like fishing a sand ledge that runs right out from the lighthouse, and it kind of runs to the southeast, and I actually had a couple of traps there, when they first came out, and they came and told me they were on there, and I said, well, I've got them plotted here, and I'm right on the border, and so, anyway, I just stopped fishing that completely, but, every year, some of the new trappers come, and they will just run their traps down there, and I will go tell them, but the divers are there, anchored right on the coral, all the time.

There is no markers, and, if they don't mark something, they're not going to protect it, and so maybe they have to make it a little bigger to protect the corals, but they've got to come up with a way to mark it, and I will just -- They're not even in your everyday Garmin charts, on your regular recreational boats, and pretty much the big orange buoys work.

I know they're really hard to maintain, but they've really got to come up with a plan. I mean, there was only sixty, and at least come up with a plan to mark one end of it and the other end, I mean diagonally, say this and that, and maybe put just those little light things that they put like along the shoreline or something, and that's something I've said at all the sanctuary meetings, and, shoot, I had to go to all those meetings with you two years ago, and it's been nice not having to deal with that, but that's something still stupid, to have all these coral protected areas, and I don't want to see people tearing up the coral and dragging their anchors across it, and it isn't the lobster guys or the commercial guys that are going to anchor on those protected coral areas, but it's just the everyday Joe not knowing they're there, and they're going to anchor, go fish, go spear, go dive, and there is absolutely no enforcement, and there's absolutely no way of knowing that, especially from Alligator Light in particular down to say Sombrero, and there is absolutely -- I mean, every single day -- You could go out right now, and there is probably twenty boats anchored between Tennessee Light and Alligator Light, on one of those areas, spearfishing, diving, having fun, not thinking they're doing anything wrong, but they don't know it's there, and that's basically all I've got to say about that.

MS. STAFFORD: Well, I mean, you know how difficult it is to install the buoys, as well as maintain them, and there hasn't been the money to do that, and these areas were set aside, and, primarily, they were thinking about the trappers, to help protect -- To help keep us away from the traps, and the fishermen that were participating then said that they were aware of it and were -- But this is the issue with people changing over, and the same thing with recreational.

Plus you have people coming in, like I was saying, that don't even know what a channel marker means, let alone that you're not supposed to throw anchors all over the coral, and it increases the problem, and there hasn't been money for enforcement either, and so, I mean, a lot of it comes down to money, money and education, getting the information out and why it's important, and then educating the general public, and, as more and more marinas are built, and more people have more power out there, it's really, really important that they are aware of what they're doing and why they could do better, and I don't know what's going to come out of the blueprint, in terms of how to protect these areas, and they're very aware of the damage that's being done.

The popular areas, they are trying to increase the mooring buoys, but then -- Even then, you end up with a halo effect around a mooring buoy, when you have increased fishing pressure and snorkeling pressure, and so there is no easy solutions, the more people there are, but you're right. I mean, I see people fishing in the Sambo Reserve all the time. They're out there for lobster, for the sportfishing, and they're bait fishing. It's not my job to go and busy everybody, but, you know, you do see things, and we just, I guess, need more enforcement capability to help people.

MR. NICHOLS: When I talk to -- Most of the people you talk to are pretty nice about it, but some of them just give you the finger or whatever, and I say, okay, you know, but a couple of those spots, in particular, like the Little Tennessee SPA they have there, and, where I'm going by all the time, I try to help out, and I'll go tell somebody, whether it's a trapper or a recreational person,

and, I mean, they're bailing the fish, and you go tell them that you're not supposed to be here, and that's what those big orange buoys are for, and so even sometimes with buoys, but it's nothing in comparison to the number of people that are going in those little SPA areas.

I think, down the road, if that's something -- The working group for the sanctuary area, they need to -- If they're going to do something with the sanctuary, they may increase, a little bit, the size of the SPA that they're going to use around some of those at some point, and they definitely need to come up with a marking mechanism, and I think they should come up -- Maybe the National Marine Sanctuary should come up with a fee that they charge everyday recreational fishermen to maintain and mark these things. If there's no money, find the money.

These people that own these marinas and are paying -- Just, for instance, the house across the street from me, that should be worth a million dollars, sold for \$3.2 million, a couple of weeks ago, and the guy had it for sale for two days. It's like, wow. If they have that kind of money available, pay in a little money, for the guy that has the four motors on his boat sitting in his backyard, for a license to help mark some SPA areas, and it certainly doesn't seem out of the realm. We have more people fishing, more people doing stuff, and so let's -- I mean, a commercial fisherman, we're paying a pretty good chunk for doing what we do, with our fees for tags and licenses and stuff, and let's put a little bit -- It's not going to hurt if you put a little bit on a lot of people, rather than a lot on a few people, and that's just a recommendation.

MS. STAFFORD: No, I agree with you, and, I mean, in every group I've ever been part of it, we've been trying to get some, you know, money from the recreational sector, and it's really hard getting it through the legislature. That's always the problem about even getting licensing of boaters, and yet you see the behavior of the boaters, and they need to at least have some basic rules-of-the-road knowledge and have an idea of where they should go and where they should stay out of it, because they don't have -- You know, they're out of their depth, or it's too shallow, and they shouldn't be in these areas, but it comes back to putting pressure on the legislature, I think, if you're going to -- You're going to have to get some sort of a fee structure, and that's never very popular.

MR. NICHOLS: You might not have to do the fee over the whole State of Florida, and, I mean, we're just talking about the Keys, Florida Keys, marine area. If you're going to fish here, you have to pay a fee, like buying a tag to go lobstering. If you're going to come through the sanctuary area, put a five-dollar fee, or a ten-dollar fee, I don't know, but something that would at least take care of the marking systems that we need to adequately protect the coral and not even worry -- Circumvent the legislature, and go through the federal government, using the sanctuary process, or maybe -- I don't know if there's any way that fees can be run through something, but, if you're going to fish in the sanctuary, at least -- And send a little pamphlet with that, with those numbers.

MS. STAFFORD: Well, they did something like that with Everglades, but they had a little more control over the access, and that's the thing here. It would -- I'm not sure -- I mean, that may be something that's going to be discussed, but, if that doesn't come out in the blueprint -- My understanding, from that last meeting, was that, going forward, they feel the lesson they learned is don't take too big of a bite out, because it took ten years to get to this point, and it feels like having a long gestation period, and it's been awful to get to the point of something coming out, and so I think they are recognizing that they would be probably more successful if they were a little more nimble and took little bites of things, and that would be a big contributing offer, to bring that up to

suggest again that we need to come up with other ways to get the resource protected, and that would be a good way, because they're the users. If they're the users, they ought to be willing to contribute, and so, yes, come to the meetings.

MS. WIEGAND: I don't want to sort of put a kibosh on conversations about the sanctuary, but I do want to make sure that I'm getting the council the information they need, and so these closed areas were established by the South Atlantic Fishery Management Council, and so I guess maybe the answer is you guys are unsure, but what the council really wants to know is, is there a need to revisit these areas, from your experience being out on the water, and are these areas accurately placed, and are there still corals here that are being protected, or should the council consider starting a process to revisit all of these areas and consider moving them to places they would be more effective, or are they still effectively, you know, protecting coral, noting all of the issues and concerns with marking and people actually knowing where these areas are, which is certainly a concern.

MR. NICHOLS: I only know -- It's too bad that we don't have somebody here from -- A commercial fisherman from Key Largo, because there's a tremendous amount of area, and I just went out with one of them a couple of days ago, but, just speaking from Alligator Light to say Sombrero, there are some very, very beautiful, prolific places, which still have some really nice coral in most of those spots that are the protected zones.

One is just west of Alligator Light, about two miles, and it's a really, really nice piece of bottom, and then the other one -- I mean, it's not a tremendous amount of coral, per se, in that Long Key to I guess Marathon area to speak of, and I'm getting too generic with Marathon, and let's say Grassy Key or something, but the areas that they have are -- There is some beautiful diving area, and there is the one place right in front of Tennessee, that just happens to be right at a lighthouse, where everybody is going to go jump in the water, because there is a lighthouse, and they always did before, and now they're not supposed to anchor on the coral, but there's no one that knows they're not supposed to anchor on the coral.

The traps, most of the guys aren't going to put the traps on the coral purposely anyway, and there probably could be a little bit of a buffer zone there, but, anyway, who knows, and we're talking way down the road, and I don't know what mechanism, and I certainly don't want to go into the fight that we will have when we start talking about things, but, at least if it's already okayed, and certainty they need to have someone go out and revisit the spots, and make sure they're in the right spots, and then someday come up with a mechanism to mark them, which we just keep talking about, and this keeps coming up and up and up.

Darn it, I'm glad that the marine sanctuary -- That our sanctuary thing has taken so much time, because that was -- I mean, that was non-sleep nights, and another big, giant stress on all of us, and it wasn't really doing anything. It was almost like doing this, only adding about a thousand-times more of those little dots, the things that aren't going to get anybody -- There is no law enforcement that's going to figure out, but we're going to be stuck not there, not being able to fish.

We're going to protect an area from the shoreline -- On Long Key, the whole entire island of Long Key, which is, what, four miles long, and I used to live on Long Key, and I'm not sure exactly, but it's a four-mile length, straight out, on a straight line, all the way from the shore all the way to the hundred-foot contour, and we have the least habitat that there is in the Keys. You picked the wrong

place, and it was right on the thing, and we're protecting pretty much nothing, but that is the hub of the lobster fishing industry, from the whole entire lower Matecumbe to Marathon, and there isn't enough land, or water, there as it is for the guys that are already there, and that's when I was talking about the CPUE stuff.

That's where the guys that are catching the almost five pounds a trap CPUE, instead of twenty pounds or so, if they were in a productive area, but, anyway, that's just one of the examples of what I spoke to when we talked about the regulating of the sanctuary.

MS. STAFFORD: Well, I think that the big swaths of area are in relation to the concept of protecting connectivity of the nursery areas all the way out to the reef. I mean, worldwide, there is a push to close more areas, to create larger marine protected areas. I mean, there's a large number of people that would like to have 30 percent of the area shut to consumptive activities, and not that --

To my way of thinking, diving, or even snorkeling, and you might not be actually physically taking things, but you still have an impact on the resource, and so I think it's all consumptive, in one way or another, but that's what drives a lot of these decisions, and then they look like -- We ended up with one right next to our house, which we went to the meetings early on, when the first designation came out, and got them to tweak it, because we had a commercial fishing special district, and we were going to be inside this closed area, because we live in an area where we don't have many neighbors.

The Navy owns the property on either side and behind us, and so that's -- Long Key came up because it was adjacent to a state park, and that was why it was thought that it would impact people less, and so that was really what that was about. Whether that will survive, I think not, but I don't know. Marquesas is another area that has been discussed, again because there aren't physical -- There aren't residential areas along there, and so that's another area, because of the turtle populations down there as well that was being looked at, and that would really impact the Key West fishermen and the Lower Keys fishermen.

I don't know, and we'll see what happens, and I'm not privy to it, but the push is to, you know, close a larger area. Whether or not these marine protected areas really work, for the ultimate goal or not, I think the jury is still out, and there's a lot of science that you could quote on either side, whether you're actually getting an increase in populations from these. You might get a very localized increase, but, overall, whether that is distributing out throughout the entire sanctuary area, I think that's -- The jury is still out on that.

I think we'll have more to talk about, and I think we will need to revisit, and I think, as far as these specific areas, it really is important to know -- To get it groundtruthed, since we've had a major event like a hurricane that went right through those areas and may have damaged the resource enough that it doesn't make sense to keep it closed, but I don't know. I don't have personal knowledge of those areas.

MR. NICHOLS: That area on Long Key there, after the hurricane -- Even with the amount of stuff, that area -- I fish -- I go through that area every day, and I live in Lower Matecumbe, and my fish house is in Conch Key, and so it's dead center between my house, and that area still -- Ironically, the actual bottom and everything there has stayed pretty healthy, but there's not much

of it. It's mostly sand and grass patches and so on and so forth, and, even when I was speaking to the sanctuary -- I don't care if Long Key State Park is sitting right there, and you have Pennekamp, and that whole area is closed anyway, but you at least are protecting a whole lot of coral up at Pennekamp.

You could have went up to, just, for instance, where I live in Islamorada, and taken two-thirds of Islamorada, or you went up to the mainland, and not Lower Matecumbe, but you go up to Islamorada itself, and you have a beautiful set of situations for coral, inshore corals, inshore diversity, which you don't have when you get to Long Key, for instance, and a lot of the water is coming out between Channel 5 and Channel 2, and that must contribute to less coral growth or whatever, and, I mean, to what you see if you get up into the middle of Lower Matecumbe, or you get up to Islamorada itself.

I mean, you come to Cheeca Rocks, for instance, and, if you go from Cheeca Rocks to Alligator, there is some just beautiful places there, but they will never bring it up, because it's in a populated area, but it has the biodiversity that you need to protect, and you've got the people tearing it up and overutilizing it, and so, somewhere, there's got to be some normalcy that we're doing something, and maybe we need to get out in those places, like we said, that are down to the west, where you're not really impacting so many people, and I don't know, but they have already got the Tortugas sanctuary, and they've got the Pennekamp sanctuary, and the middle is just getting built up, and so I think the people are just wanting to take -- They just wanted to take a little too much of something, personally, for nothing.

MS. STAFFORD: Well, I think, initially, when we first started that ecosystem protection group to oversee the whole thing, there was a desire, by some groups, to have a SPA in the Tortugas, one in the Marquesas, and we already have the one in the Sambos, and then they wanted one in the Middle Keys and one in the Upper Keys, and there was tremendous pushback on those areas, because, like you said, there's Pennekamp, there's the Everglades, and there is Biscayne Bay.

There is a patchwork of big areas, and I don't know, and it would be interesting. Tom, do you have information on how many square miles of area in the south Florida area is already like in a protection of some kind like that? I mean, that would be really interesting to see, how many areas are actually already closed to consumptive activities or are severely restricted, so that we have an idea of what already exists.

MR. NICHOLS: You have that Everglades National Park that is right in your backyard of Long Key, and it's less than two miles offshore, and then we have it all the way up to Lower Matecumbe, and that's a gigantic piece of bottom, and I remember, when I first went into business, we went up and talked to the managers, and they told us that we're not going to kick you commercial fishermen out of here, and you're going to be here forever, and we had a permit for stone crabbing, and I think it was 450 traps that you were allowed to have, and the permit that I had -- I only had it for a couple of years, and then they took it away, but it -- I mean, no one even talks about that.

That's just a gigantic habitat, and we fish -- We like to fish in that bay, and that's something -- I don't know if you keep a lot of traps, because I know you have a lot of your research stuff out in the park there, but that's a major, major blow from the hurricane, and that's something else. The actual -- I guess you would call it the southwest part of the whole entire Everglades closure area of the park, and that habitat is really bad.

I mean, we had some places that my dad and myself and my kids -- We love to go fishing for snapper and stuff back in there, and that bottom has just been torched since the hurricane, and there wasn't any traps near there. There wasn't any -- Traps didn't go blowing all over that place, and trees were blowing all over the place, and we had islands in the middle of the Everglades, but the bottom has -- It doesn't seem to be coming back too well. I mean, I don't see that really coming - - I see it better out of the -- I see better looking bottom, by far, outside of the Everglades National Park, when you go to the west and you're getting around Tripod and in that area, then I see when you get up into -- Actually, from Bamboo to Twin Markers, in particular, to the north, to the banks there, up to maybe Sprigger, and that bottom is bad.

I mean, it's really bad. We went fishing that one section, from Bamboo Banks and up around Buchanan and up in there, and the bottom is dead. I mean, there is very small grass on the bottom, and that used to have rolling moss all over, and deep holes cut in -- I don't know, and are you seeing any regrowth, Tom, because I don't go around there enough anymore.

MR. MATTHEWS: No, and I was actually hoping to talk to you about that. Casey Butler here had an experiment where we used the Everglades as a control. We expected to find healthy lobsters, and it was the worst area we sampled, and so exactly what you thought. That area that was developed to protect, because of changes in the ecosystem, and I don't want to put my finger on any particular one, but that whole area, which was probably the most productive lobster area in the world, is no longer sustaining lobsters year-round. When you talk about juvenile lobsters in other areas, part of my thought is because lobsters can't grow up there, and so they're now more in the fringes, and so, no, exactly what you said is part of the ecological issues in south Florida.

MR. NICHOLS: That's an area -- I don't fish the bay a ton, but that used to be some of our most productive lobster areas, and you don't see that kind of production, and we got some of the traps out of there fairly rapidly, and you don't see the recruitment. What's ironic is, when you see those limestone holes that are still -- There are still some limestone holes, but it's hard to find them now.

I mean, you used to be able to see a big sand hole in the middle of the grass patches, and now it's just pretty much like a desert, and you can still -- If you have it marked, you still see some limestone holes, but, if you look down, the lobsters -- If you jump in the water, there's not the lobster there used to be at all, and there's a lot of jewfish, which I keeping blaming it on -- Goliath grouper or jewfish or whatever, but, anyway, but I don't really know why that is, but I don't see that in those coral patches either in the bay, you know, those limestone holes. Are you seeing the lobsters coming back in those holes?

MR. MATTHEWS: As you've said, the holes are largely gone. Part of our ecological system -- Again, I can't put my finger on anything in particular, but, no, and the small red grouper are one of the environmental engineers that used to maintain those holes, and stone crabs make them. Then other things move in, and they enlarge. Lobster aren't very good at maintaining those. It's really the red groupers that are the things that fan and clean those holes, and the changes, the increased pressure, has -- There is a number of these organisms that maintain the environment that you grew up with that simply aren't there anymore, and, most likely -- I mean, some environmental and some human removal.

MS. STAFFORD: I would like to ask about the sponge populations. How is the sponge biomass doing up there in that same area?

MR. MATTHEWS: This is a miserable set of questions. The algae blooms that started more frequently in the 1990s -- In that case, it was a cyanobacteria, a fancy word for a single-celled bacteriocyte algae, and it actually clogs up the sponges, and so they suffocate, and it's a crazy relationship. That happens periodically, and so, over the course of five or ten years, we know it's going to occur in our current environment, and it's going to wipe out every sponge there. We have nurseries in ten areas that we are planting and maintaining.

Irma came along, and, yes, it flooded the Keys, but that environment -- Eight feet of water left, and sponges can't live out of the water, and so we lost huge tracts nearshore, and nearshore hadn't been affected by the cyanobacteria blooms, just because of how water flows, and it's hard to get it nearshore, and so, again, more frequent disturbances, and these sponge populations -- Sponges are hugely underappreciated.

We love our corals, and they're there, but sponges are the things that clean the nutrients, the dissolved carbon and stuff out of the water and lock it up in biomass, and so that's a major focus of our lab, is restoration, and we sort of feel like we're restoring places that we know are going to be hit in a few years, and so it's a little bit of a shell game, which is okay. It just means it's a lot of effort to maintain ecological function in this hardbottom community that the sponges in Florida Bay are the dominant organism on.

MS. STAFFORD: So, currently, have you done some out-planting of the nurseries yet?

MR. MATTHEWS: Absolutely we have, and regularly, and some of them do well, and some of them get hit by like Irma.

MS. STAFFORD: Yes, and we've had the same action. I mean, we've had some of ours tumbled a long way down there, and, you know, we did a small project out in front of our place, and that's -- But it's largely been successful, I think. I mean, I was disappointed at first, when we found a few empty bricks, but then realized that there are new, you know, recruits happening, where there was a desert, and so that, to me, is --

I think sponges are largely underappreciated, but that changed the whole Florida Bay, hugely, and, if we can't figure out how to address the root of the problem there, it's a bit like the same thing with coral. We plant, and we grow, and we do everything we can, and, if we can't keep the stuff alive, we're just spinning wheels, and so, I mean, if we can figure out -- I mean, do you think the restoration efforts up in the Everglades are going to come to fruition?

MR. MATTHEWS: We're a bit out of my area. Restoration of water quality and the Everglades is extremely important for the fishery that we're talking about in particular. Can I say how successful it is? It's not something that can be measured easily, but certainly total landings are down, and we know we've lost a large area in the Everglades and near-shore Florida Bay that is simply no longer juvenile lobster habitat, and so that's not a promising outlook, where we're at right now.

MR. NICHOLS: Tom, I'm glad that we got into this discussion, because it kind of goes back, way back in the beginning, when we were talking about changes, and I didn't really think about it too much, but, you know, as a fisherman, you have to adapt, and, if you find an area you're not catching in, you move from that area where you don't catch anything, and so that would be kind of stupid, but we have always -- When Tom went on the boats with me for years, we always depend on a migration of lobster that comes in October.

It used to start on the first cold front, usually around the 15<sup>th</sup> of October, and we would always get a cold front, and I would just use the 15<sup>th</sup>. Over the years, in the last twenty years, we didn't start our migrations and our catching of lobster for those migrations until about the end of October, when we start getting our cold fronts, and they come later and later.

The areas that really have the traps, and Tom has fished with me even back in the day, when we had seven or eight guys, and the guys weren't very -- Whatever. Anyway, maybe they weren't caring about you or somebody else, but you would have a buoy ten feet apart, and you would fish this migration of lobster, and it didn't really matter, seemingly, how many traps were there, and you would catch the migration of the lobsters, from usually the middle of October until maybe the first of December, and we're seeing those migrations, in the last three -- Since Irma, and that's something that is a really interesting observation.

We are -- I always feel the reason why we have always done so well in our area was we had that recruitment coming out of the Everglades right there, or out of that Twin Markers to say back maybe to back maybe to behind Lower Matecumbe there or something, and that migration would kind of come out of the park, and we have not, since Irma, had a migration, a real good migration.

We get a run, but it's not sustained, and it's near as much, but we still have the amount of traps, because all the guys are used to piling the traps in there, and I have started to unpile my traps, to try to get away from some of them, and I'm doing better, on average, because we're just not getting the migration, and maybe that's it. Maybe it's not holding -- The small ones might hold at some point, but I think they were kind of setting up to move. Well, I know they were setting up to move, because we used to dive a place called Sid Keys, which is up in the upper quadrant, where it runs into -- The fresh water almost runs into Cape Florida, as it turns, and the lobsters -- It used to be beautiful, prolific corals would come up out of the water, and I used to stone crab back in there, and I fished all those little creeks and little channels.

The lobster -- There were so many lobster, in the fall, that they would have their antennas out of the water, thousands and thousands of lobster, big ones, almost all legal, and, as soon as you got that cold front, they would flush out, and we would just -- I would do two or three pounds or four pounds a trap for -- I would pull my traps in four days, and the traps were just full and full and full, and it's been a long, long time since that, but that habitat -- If you went back there now, all I see -- It was just total sand, and you would see a shark maybe slithering around, but that's been gone for a long, long time, and I'm kind of like putting two and two together, and maybe -- I hope that bottom comes back a little bit, where Tom is talking about, because I think that's where we were holding a lot of our lobster for our channel migrations.

Also, the fisheries have been diverted, and I think the lobsters have learned -- There is a new fishery, out to the west, that we haven't had, that seems to be increasing, and a lot of the guys are catching a lot more lobsters in the areas where we crab, where we never had lobster traps before,

and it's very, very productive, and so I am getting too old to be messing with that, and I don't want to have to truck lobster traps forty or fifty miles out in the Gulf, but that seems to be an increasing -- A new area of catchability, and maybe the lobsters had to find somewhere else to go, and I don't know, because, I mean, you know, but, anyway, I appreciate you telling me what you were telling me.

MS. WIEGAND: I don't want to put too much of a kibosh on this conversation, but we are sort of veering into stuff that's very Florida-specific, which is great, and so I think what we're going to do here is let's move to the last agenda item we have for the AP, which is election of a new Chair and Vice Chair. Then we can break for lunch, and take an hour-and-a-half to go get lunch, and we'll reset, and then, when we come back, we can really start to dig into some of those Florida-specific issues.

For those of you AP members who aren't from Florida, you are certainly welcome and encouraged to come back and participate in the discussions, especially if, you know, you're ever down here fishing in the Florida Keys, and this certainly applies to you, but, also, don't feel obligated to stick around for the Florida-state-specific discussions. It is in no way mandatory, and so, with that, it's time to elect a new Chair and Vice Chair.

We usually do this every three meetings, and so Bruce Irwin, who is your current Chair, has served three meetings in a row, running the AP, and so now it's time to elect someone new, as well as a Vice Chair, which we currently don't have, and so how this works is I will sort of entertain a motion from the AP, and you just pass a motion to elect whomever as Chair and whomever as Vice Chair.

MS. STAFFORD: Since we're the ones that show up, I will elect Gary for the Chair.

MR. NICHOLS: I was going to nominate you for the Chair.

MS. STAFFORD: That's why I thought I would beat you to it.

MR. NICHOLS: No matter which way it is -- Mimi, she is so qualified, with the National Marine Sanctuary and everything else, and she doesn't get enough accolades. Being a woman, I mean, I think it's great having her perspective, and, you know, my daughter is another -- She doesn't get what she deserves, and let's put it over the time, and my daughter got a lot of accolades, because she was a captain of the boat, but, anyway, I nominate her, if we do that, for the Vice Chair, or Chair, whichever one she wants to be. This is a little different, because we don't have -- It's not like OFF, and we don't have enough people. I kind of feel like you should have a quorum or something, and we don't have enough people to --

MS. WIEGAND: There actually are no quorum requirements for advisory panels, and so I guess we've got a motion on the board to elect Gary Nichols as Chair and Mimi Stafford as Vice Chair of the Spiny Lobster Advisory Panel. I guess it's motioned by both Gary and Mimi, if anyone wants to second it. Then, I guess, if there's no objection to this motion, we'll take it as consensus and move forward with Gary and Mimi at the helm of the Spiny Lobster AP. Thank you both. With that, let's go ahead and break for lunch, and we can come back at 1:42, and we'll give you guys an hour-and-a-half. 1:42, approximately.

(Whereupon, a recess was taken.)

MS. WIEGAND: All right, everyone. I am going to get us rolling again for the meeting. All right, everyone. We're going to get rolling again, and so, for this next part of the meeting, it's pretty open-ended, and we've got, up on your screen, a list of updates from FWC that Jessica went over earlier this morning, and we're just going to open it up to questions from any of the AP members, as well as anyone else in the room.

If you have any questions about what's going on at FWC, or any of these things you see listed on the board, feel free to ask. Now is a great opportunity to do it, because you've got Jessica here, and you've got C.J. here, and Tom here, a bunch of FWC staff here and ready to talk about whatever concerns you may have, and so I suggest jumping on the opportunity. If you're not already sitting at the table, and you have a question, please do come up to the mic and turn it on, so that we can get it on the record for everyone. With that, I'm opening it up to the room.

MS. MCCAWLEY: So thoughts on any of the items there on the screen or anything you want more information on or that you want to talk about?

MR. NICHOLS: If no one has any comments they want to make on the top section, I think it probably would be a very worthwhile discussion for us to revisit the second item on casitas.

MS. MCCAWLEY: We sure can. Do you want me to try to start the discussion, and then you guys respond? Okay. Sure. Do you have questions on the particular ones up there? The degradable panels was one that you guys had already talked about, and the council has already taken action on, but we did not change the specifications in state waters, and so that -- All that is is basically taking what you guys suggested, and it's in place in federal waters, but not in state waters, and so that's what the degradable panels item is.

Do you have questions about the permanent marking requirements? I am trying to read what staff wrote about what the issue is. It looks like that the issue is, when the trap is transferred between individuals, there is an enforcement issue, because of the permanent marking number, I guess in the cement, isn't matching the trap number, and is that an issue for you guys?

MR. NICHOLS: I am selling traps right now to people, and it's kind of like with the stone crab, and we're doing a lot of transferring of traps, I mean, right now, this minute, myself, and, over the years, I've bought a lot of traps. Now, we bought the little orange tags from a company that's up north and put them -- Screwed them onto the traps, and there was discussions, at this meeting and other meetings that we've had, that ended up being that wasn't good enough, and it wasn't permanent.

Well, it's screwed on, and it's really hard to get those off, but I think where we're at, hopefully where we're at, is you have to have the tag on the trap, and the tag has to match the boat and the traps and all that, and so I don't think the number in the concrete -- I mean, especially with a lobster trap, you don't have that much -- They're going to last three or four years, at the most, without being degraded, a wood trap in particular, and so to go and re-concrete that is almost impossible, and maybe on a stone crab trap, if they wanted to do something, you could permanently -- We were burning them, you know taking a burner and burning some of the numbers into the trap itself, but, again, they have a tag on it.

Whenever we do trap retrieval, which I do trap retrieval every single year, we have basically always used the number that is on the tag, unless there's not a number and a tag, and then you go to the trap, and so I don't think we have any issues with that part, and, the degradable panels, as far as -- Since I've been in the fishery, it's always been that we have to have a wood top, or a vertical piece, that's bigger than the throat size, so that the funnel size opening, when it degrades, will be bigger than the funnel entrance size, unless that has changed.

MS. MCCAWLEY: It was about the material, about the wood, cotton, and other material that will degrade at the same rate as a trap, and that's what you guys changed it to, but that's not what FWC regulations state right now. To go back to the trap marking requirements, the possible solutions that we were suggesting was going into rule to remove the trap permanent marking requirement and instead rely on the commission-issued trap tags, the buoy, and the buoy markings, to identify trap owners, and it sounds like that's what you're saying.

MR. NICHOLS: That's exactly right, and I agree 100 percent with that, and we've had a lot of discussion on that over the years. The panel, I might be a little bit screwed up, but we're using -- The trap wood that we use, on the lid traditionally especially, on the top portion of the trap, and that degrades faster than anything else. My traps, in the deep water in particular, I'm lucky to get one season out of those lids, because that's the first place the worms are going to attack.

I usually use a wire basket trap in the deeper water, and, even where we have the framing one-by-twos, and thinking I am beating the worms, we have a wood bottom, and the darned bottoms are going out of the traps, and it's costing me twenty-bucks to repair a trap that's because just the bottom is going out, and the top, and so, anyway, and the plastic is still super expensive.

MS. MCCAWLEY: All right. The trap puller -- What this is is trap pullers are prohibited aboard recreational vessels and certain commercial vessels. It says the rule allows commercial harvesters with trap endorsements to possess and use trap pullers. However, commercial harvesters are not required to own trap certificates, in order to have the puller onboard, and so a person may not legally use lobster or stone crab traps unless they own trap certificates and purchase trap tags from the commission, and so I guess that there's been some concern that this could facilitate trap robbing, and so it would be clarifying some of this, in order to try to not make it so there is any loopholes for trap robbing.

MR. NICHOLS: That is an awesome thing, and that's what they have in the stone crab fishery, as far as I know, and so it's just kind of bringing it over to the lobster fishery, but that makes all the sense in the world, although, when my dad -- Maybe you have an age requirement. Maybe it's seventy-five or something, because I know my dad had his boat, and he was pulling -- You know, just thinking about my dad in particular, but he had his lobster and crab business, and, being seventy-five, he's trying to pull the stone crab traps by hand, and I had the puller on the boat, and, before the law changed, he could actually use the puller, before he decided to sell out of the commercial end of things, and there maybe something that at some age, but it's probably so small that it may not be worthy of putting it into this, especially in lobster, but the crab maybe, and I don't know. It's just throwing it out there for a seventy-five-year-old person or something.

MS. MCCAWLEY: Okay. That sounds good.

MS. STAFFORD: I think the number of people -- I mean, you can't recreationally lobster traps, and I think it is probably not worth really addressing, and I don't know why else you would want to have a puller on a recreational boat, unless you're going to be pulling gear.

MS. MCCAWLEY: Then the trap working, and so this is where it's been suggested that rule language needs to be clarified on what constitutes working a trap, and it sounds like folks have been wanting to deploy traps at night, during the pre-season soak period, and I guess that there's been some concerns about trap theft and molestation at night, and so, if you have an opinion about the definition of "working".

MR. NICHOLS: That's been a contentious issue, because there's been a little difference between Miami, for some reason, and the Keys, and it's stupid. We've been putting our traps out at midnight, for I don't even remember when, but you see how hot it is, and, I mean, we're looking at ninety-five or a hundred degrees, and we get more traps out from midnight until nine in the morning, and then, by noon or one o'clock, the guys are done, and we load the boat, and we'll go home, and we'll come back, and we'll leave at the dock at about, you know, seven o'clock, or eight o'clock, when it's cool again, without killing your guys.

Now, in the old days, when we were in better shape, my crew or myself or anyone, you know, we would do it, but, I mean, they're not allowed to harvest, pull, whatever, and setting the traps is one thing, but they shouldn't have any product on the boat during that time, and that's the easiest way to kill anything, and you're not going to have any product whatsoever at night, and you're not going to be pulling the traps at night. I guess, when you don't have product on the boat, you're obviously -- Who cares what you're doing with the traps, but I think you could kind of solve the whole thing by just not having any product, period, but I don't know.

MR. STAFFORD: Some people are fishing down to the west who maybe keep traps onboard overnight, and they've got product on the boat, and they want to bait the traps, and they bring out the fifty shorts or whatever, or fifty shorts plus, and so I don't -- I mean, obviously, at the beginning of the season, before the season starts, you can't have any product on the boat anyway, right? A lot of people to the west have traps on the boat at night and will set them at night, with product on the boat, and so I don't know.

MR. NICHOLS: Right, but we're not allowed to pull traps at night anyway.

MR. STAFFORD: You're not allowed to pull them, but they're setting them. I mean, I don't do it, but --

MR. NICHOLS: You clarified that, because I forgot about -- God, I fished those fisheries where you're going to take a long boat ride, and then you have say fifty shorts in the live well, during the season, but you're basically not stopping the boat and pulling the traps. Some of the guys do though.

MR. STAFFORD: They're dropping the traps, and does that count as working the traps?

MR. NICHOLS: That's a gray area, and I don't know.

MR. STAFFORD: I mean, that's what you're looking for.

MR. NICHOLS: We also have a little issue, because we do start pulling traps earlier, because of the sun rising and pulling, and, fortunately, we haven't had any big hassles with it, and I think there is officer discretion, and you're not going to start pulling at five o'clock in the morning, but it's a half-hour before sunrise, and that sometimes -- You know, you get out to the trap line, and it might be --

MR. STAFFORD: That's permissible, right? An hour before sunrise, right? Right now, you can pull traps at five in the morning, but sometimes it's later. Anyway.

MS. MCCAWLEY: That helped, and maybe it's something that -- Maybe it doesn't need fixing right now, this "working" definition, and I think that the other three do, but, yes, I need to look into the language a little bit more, talk to law enforcement, and I agree with what Gary is saying, that there's a difference between what's happening in Miami and what's happening down here.

MR. NICHOLS: It's not fair, you know. I mean, it's not fair to the guys, and they're telling me - - I mean, even some of the Upper Keys guys have an issue, and so I think that needs to go to the marine patrol, and it's been nice that we have a really great marine patrol in the Middle Keys, and, I mean, they've been awesome, and the guys that we know, but it should be universal, and it's not fair that I get to go out at midnight and throw my traps and the guy in Miami doesn't. I don't see why that -- That there isn't an equity somehow.

MS. MCCAWLEY: Okay. Then the next one is casitas, and so our commissioners have brought up, a couple of different times, the thought of having casitas in the lobster fishery. I don't know exactly what this would look like, meaning is it partly still using traps, or is it partly using casitas, and is it trying to 100 percent eliminate traps, and I haven't heard them say it like that, but my impression, from you guys, is that you guys don't want to consider the use of casitas in the fishery, and that's just my impression.

The commissioners want us to give them a presentation about this and kind of explain to them what some of the challenges would be. We wrote a white paper about this, and we tried to explain that, in addition to trying to find a place the casitas in the sanctuary, and needing their permission, that there would also be issues, because how do you transfer from using a trap fishery to having a casita fishery, but do you guys have thoughts on the use of casitas?

MS. STAFFORD: Where do we begin? In the past, you know, they were -- Stuff was placed on the bottom, starting in the days with old ice cans and fifty-five-gallon drums and whatever, and it was a fairly common practice with the older fishermen. Over time, with the advent of GPS and being able to coordinate and discover the deeper spots, where you could hide stuff more easily, it became such a nightmare.

I mean, where we traditionally fish, that's where the big explosion happened, and the conflicts between the groups and the shift of the fishery to this uncontrolled casita fishery, where you can't -- You can't control it, and, I mean, that was demonstrated. We've already seen the outcome of a fishery that is out of sight, and you have no idea what's down there, how much, and it's being fished all year long, and it's an opportunity for people to, you know, harvest in the off-season, unseen.

I don't know what the motivation is to bring this back up again. It was demonstrated that it was one of the darkest chapters, locally. Now, I know they use casitas somewhat successfully in other locations, and I used to communicate with Cuba and other -- Nicaragua, and I've been in a lot of places where they have casita fisheries, and I've talked to their managers, and I've talked to the fishermen, and those places -- There are specific areas where they work, and they don't work in a lot of other areas.

That's been part of their development of their fisheries. Here, it really was only a little sideline part, until it exploded, and, when they really started looking into the depth of problem, I think everyone was appalled at how much garbage is still out there, and it's never going to get brought in, and so my big issue is how do you take away from those of us who have paid our dues, and we have played by the rules, and we've worked hard, and we've built up, you know, a livelihood, and how do you take away the right to fish in areas where we fish, because that feels very -- I mean, it feels very unjust, to me, and it also feels like -- You know, I don't know how you would do it.

You would have to go through the Army Corps, because these are going to be permanent structures. Otherwise, you're putting habitat down that's going to get settled by, you know, corals and other things, and what do you do? Do you rip that back out again? There's just so many layers of problems with it that I don't really understand why they bring it up again, other than maybe the dive sector would like to have an opportunity to expand again, and I don't know.

MS. MCCAWLEY: It's a great point. All the points that you brought up are kind of some of the things that we think as well, as staff, and it's definitely different commissioners than it was when the problem was really big before, with the illegal activity, and we have one commissioner that maybe remembers some of that, and all the rest of them no, and then those commissioners are familiar with some of the casita use in the Caribbean, and, in their mind, it works.

That's kind of, as far as I can tell, their thought process, and we haven't -- Other than commissioners just kind of offhandedly asking about it, and when is staff going to bring something back, or can you write this white paper, and they haven't had a big, open discussion about it, and so I can't exactly explain where they want to go with it, because that would have to be a public discussion, and they just haven't really had one yet.

MR. NICHOLS: Jessica, this is kind of a ludicrous thing that we're dealing with here, because, you know, your word has to be something. It seems like we're getting hit with this casita then when we addressed the casitas time and time again. We did it from the beginning, back in the late 1980s, when we were talking about a casita fishery versus a lobster trap fishery, with the DNR and with the FWC, the old DNR and the FWC, and then we talked to Mr. Spotswood, and we talked to Rodney Baretta, during the time when we were doing the stone crab regulations, and it came up, and it gave us all this terrific heartburn.

It seems like -- I don't know if some of the people that are new weren't there when we had to remove 3,000 -- All they need to do is talk to the NOAA researchers and the people that had to go out and make the cases from the federal government to remove the trash. Personally, I know of probably over a hundred casitas still out there, right now, that are being built, and they're being commercially built by the guys to get 250 lobsters, and it's pretty hard to get 250 lobsters diving, unless you're finding a casita, really, in all honesty.

I mean, I've been a diver most all of my life, and those spots are still there, and they're out of sight and out of mind, and so, the more casitas that you put in the water --- Even if you have a small, highly-regulated thing, they're not going to find them, because they're going to put them -- Anybody that has half a brain is going to put them in the murkier section of the water, where they just have the GPS coordinates and they can find them themselves, so someone else doesn't find them.

Even though they think that fishery is so good in the Bahamas, and I'm real familiar with the fisheries in the Bahamas, with the casita fishery, and it's a bad deal even to those guys. Half the time, the other people find their casitas, and they're getting robbed before they get to their casitas, and they're having fights, and they shoot each other all the time. People kill each other, and people are drowning themselves, and it's not publicized, because it's out of our sight and out of our mind.

If we wanted to design a casita fishery, this wouldn't be the place. There's just too doggone many people here, and those casitas are still on the bottom, and it has killed all the bottom around it. I mean, you have this -- When you say a casita, you're just talking about putting some blocks down and putting the shower doors, and what's the big deal, and you've just got the blocks and the shower doors. Then you came up with the big dumpsters, and a lot of people took the dumpsters, or it used to be the ice cans, back years ago, and that's how we started our -- My dad and I started our lobster fishing for real, pretty much, was diving ice cans.

As a matter of a fact, I started putting my traps out when I was sixteen years old, fifteen or sixteen, and I put the traps down in the middle of a tropical storm, and I was one of the only persons to go out and put traps out, and I ran them in the bay back behind Shell Key, and -- A house boat comes up to me, at the opening of the season, and that tells me that you can't have your traps here, and my ice cans are here, and I said, well, I can't see any ice cans, and I don't know what you're talking about, and, well, these are marked, and these are mine, and I said, well, they don't have a buoy or nothing on them, and I've got a guy that's six-foot-five, and he's a pretty strong guy, and I'm not in bad shape, but I said, sir, I'm not going to move my traps, and the traps are full of lobsters, and I'm trying to make a living. We got along great after that, but it's just a recipe for total disaster, especially when we're in a marine --

If you asked the National Marine Sanctuary to get onboard, there's no way in heck. I can't see -- We talked to Sarah Fangman about this, and sometimes there has to be an end to the discussion of casitas, and it's time for the end to come, that discussion to end, unless maybe we get this fishery down to 200,000 traps, and you have a designed area that you want them to fish them, where we don't fish traditionally with lobster traps, and maybe we could find that area and put them there, because there is some offshore stuff that may be available up to the northwest part of Florida, where stopped fishing lobster traps about the -- As far as I know, there's not too many traps above about the 10-line, the 25-10, north and west, in probably thirty foot of water, and there is plenty of lobster, when you get out on new grounds and all that, and there might be something to that.

That's about the -- It would have to be super limited, and that wouldn't be in the state's jurisdiction at all anyway, and that would come under the Gulf Council stuff, but, in the South Atlantic, no, because everything is going to be in divable range, and anything in divable range, and I don't care if it's 200 foot of water, it's going to be built. That's it.

MS. STAFFORD: Well, it also depends on the bottom, you know, what -- That is the other reason it's so limited in where it works. You need the right substrate, and, if it's out far in the Gulf, I suspect you may have too much mud and sediment, and it won't work as well. I mean, my understanding is that's why they don't work as well to the west, because it's soft. It's softer bottom, and they sink in, or the groupers and jewfish get underneath and make them into caves, make them into lobster caves.

MR. NICHOLS: Yes, and they want to put it in the hardest shallow bottom, where you have the short grass. That's where those casitas are traditionally at, and the most productive, and, as the grasses disappear, and you still get some hard bottom, there's a lot more places that I think casitas probably would be effective, but, if there's a will, there's a way, and so, as long as that door is open, they will find a place to put the casitas, if they're allowed to put a casita, and maybe try some of that stuff.

That's always another thing for -- Again, for a limited experimental fishery, with a lot of -- I think only government-wide, but not where we're doing traditional trap fisheries. We have enough conflicts amongst ourselves, between the guys that use the trawls, the new fishermen, and we've got people that don't use a trawl, the stone crab fishery, and we've got enough conflict amongst ourselves, and the divers themselves as it is with our traps in the water, and there's not a lot of respect for what we do anyway, and it's hard enough to make a living at it. If they were going to do that, we're kind of past the time. It should have been quite a while back.

MS. STAFFORD: The main area that I know of, that I think the casitas have been successful, has been in Cuba, and they have a lot more control over their whole fishery, and they don't work in all areas there either. They work in what they call the levant area, where the lobsters are up and moving, and so it's -- It works in some areas, but to do it here would really be a detriment to the fishermen, and so I am disappointed that they're talking about it again.

MS. MCCAWLEY: Yes, and I appreciate this discussion. It's helpful, and, when we bring the presentation to the commission about the challenges, then let's think about what's the best way to get your voice heard, whether it's all of you all coming individually, writing letters, or what it is, so that they fully understand you all's position. I'm thinking that maybe some one-on-one meetings with some of the commissioners, especially the commissioners that weren't around, and they don't know this history, and maybe some of you guys meeting with them one-on-one, before we get to the commission, could help that discussion. That way, they can ask more questions, and you can have a more open discussion with them before the commission meeting.

MR. NICHOLS: I've got a question. Which people are that, because I had big discussions and written comments on these with Alan Spotswood and with Rodney Baretta, over time, and it was squashed. I mean, to my knowledge, it was a done deal, and I think Roy Crabtree -- That also we had that discussion, if I remember right, but we've been before the advisory panels, and we've been before the FWC, and we've been -- Where do we have to go, and how many times -- How many letters, and how many times do we have to show up, and I got called by Bill Kelly this last week, and I'm on vacation, and I'm going to go to Key West and a Gulf of Mexico Council meeting to talk about casitas, and I'm like, you've got to -- I told him, pretty much, that you've got to be kidding me, in another way, but anyway, and so it's just -- It's a little bit bizarre.

We're all trying to make a living and do our thing, and we still have families, and we just can't keep -- You can't just keep digging up something else that we have to fight against, or fight for, because there's not enough -- There's not enough of the older guys that want to fight either. A lot of these guys -- You see the room here, and we're not packed with commercial fishermen. At most of the meetings in Key West, you have nobody, commercial fishermen, and so where are these guys going to come from? Eventually, we're going to get run over.

If these fishermen, these young guys, don't wake themselves up, I'm going to feel really bad, and I'm going to keep my family busting butt to try to go to stuff, but they're not all local, and they're not maybe as educated to the fisheries, but we've had to -- My generation has had to fight, from the 1970s to now, for everything, and Mimi's as well, and we've had to develop it, and these other guys don't have any idea what it was like when we had to do a trap certificate program, and we had to do limited entry.

They don't have a -- They just go, well, we'll go buy some certificates for our traps, and the walls are just what they are, and we need that younger generation to get involved, but where is it? Coming from Keys Fisheries, I can't even get people to pay a hundred dollars to OFF, which is nothing, and Florida Keys Commercial Fishermen can't get somebody to pay \$700 to keep their living, and they've got someone to speak for them, but, no matter who you pay to speak, whether it's Jerry Sampson or Bill Kelly, that fisherman sitting here is going to be ten-times more effective if he's out on the water doing it every day and telling you what's going on on the water than it's going to be with Bill Kelly or Jerry Sampson, even though they're going to be great -- He got his two minutes during the COVID, and we still got the stone crab bill passed, and Jerry got his two minutes, and I got my two minutes, and so what can you get done in two minutes, sometimes?

MS. MCCAWLEY: I appreciate all the comments and the discussion on this. All right, and so then the next item up there, and you guys have already talked about the sanctuary plan and its release, and so I feel like maybe we need to talk about things like those sixty areas and anything else that you see in the plan that you have concerns about after the plan comes out.

Let's talk about Biscayne National Park a little bit, and so we recently -- FWC recently met with the park, and I want to remind you that, in the fishery management plan, it says that the National Park Service will seek to phase-out commercial fishing. They've been through multiple superintendents, and they have a new superintendent now, and she's asking a lot of questions, but, right now, they are wanting to eliminate traps inside the Lagare anchorage, which is a fairly small area where there is this shipwreck.

That is the proposal that's on the table that would come to the September FWC meeting, but the Parks Service is also seeking to understand more about the commercial fisheries that operate in the park, and so the trap fisheries, the roller frame trawl fisheries, the ballyhoo fishery, and so they're asking a lot of questions. I think that they would like to establish a commercial use permit for the park, and so they already have a permit that you have to get if you're going to run for-hire trips, and so Everglades has that, and Biscayne has that, and they want to try to identify which fishermen are actually using the park.

I think that they're wanting to understand what's happening right now, and we've tried to tell them. We also told them that they need to hear it firsthand from the fishermen and not just from us, and so I think that they're having an upcoming meeting, and law enforcement in the area was helping

to set that up, to kind of be the go-between between the fishermen and the Parks Service, but they were asking us a lot of questions about traps.

We tried to explain that, you know, you've got the Miami River fishermen, and you've got a lot of folks there, and where are these people going to go if you have big areas where you have no traps inside the park, and so, at this point, it's just in the questioning stage, other than the Legare, which is a small little square inside the park. It's just a lot of questions.

MR. NICHOLS: That Legare, how much area do you think that might be? Do you have a dimension?

MS. MCCAWLEY: Yes, and we can look it up for you. It was a pretty big triangle before, and now it's a little rectangle, but we'll get the exact amount for you.

MR. NICHOLS: Is this going to be marked with like a SPA --

MS. MCCAWLEY: It's already marked now.

MR. NICHOLS: Okay. Well, you know, Bill might be able to fill that in better, but Ernie Paton and most of the guys, Gary Sands and several other fishermen from up here -- We just -- It's kind of like we were talking about casitas. I mean, the amount of input and stuff -- I went up and met with -- Pete Worthington and myself, with the last manager of the Biscayne Sanctuary, and I used to fish in that Biscayne Sanctuary when I was younger, and he was so adamantly against having any commercial fishing, and I was surprised that we were actually able to pull off the fact that we were able to fish.

Going back to -- I used to -- The permit that I had, that I spoke about earlier, to fish in Everglades National Park, and they told me they would never take it away from the commercial fishermen, and that was coming down from the governor at the time, which I don't even remember -- I think it was Claude Kirk, possibly, but, anyway, that lasted for maybe five years, total, and then they decided no commercial fishing in the park, and so some kind of safeguard for the guys here.

Yes, I think the same kind of thing, and you get a little permit with a triangle, saying you're going to be fishing in the park, but I hate to see what happened with us -- We had the same kind of thing in the national park, in Everglades National Park, and it was limited. It was kind of like you're grandfathered in, but nobody else can come or go from that fishery, and our fishery -- I was just talking to Tom Matthews, and we have 60 percent of the fishermen over fifty-five in our commercial lobster fishery, and so we're not going to be here probably forever, obviously, and we've got to protect the younger generation buying into this.

I think it's just a matter of registering and getting the tags, so that they know who is in there, and that's not unreasonable. That way, you identify -- You will know, and, if you see a spike in the numbers, then you come up with like a baseline number, and you have to -- Kind of like in Maine, and, if you're going to go into that area, you may have to wait, be on a waiting list at some point, to regulate the number, total number, of people and fishers and number of traps that are actually traditionally fishing, but don't put this grandfather clause, where you just exclude the next generation.

MS. STAFFORD: I think that's a good idea, actually, to get an idea of how many people are fishing in there right now and how many traps are in there right now, and I think the same thing happened in Pennekamp, if I remember right? When they were first talking about restricting the lobster fishery, they weren't going to restrict traps, because they were -- I believe they do now, and is that correct? I don't think you can fish traps anymore in Pennekamp, but, initially, they were closing areas, because they were worried about the sports divers. Is it open to trapping? I couldn't remember.

MR. NICHOLS: Yes, and Pennekamp is open, except for in the designated areas, and, if you look at the SPAs, it's a lot of closed areas, but they don't have a two-day dive season, to my knowledge, I believe, at all, and that puts everybody in my backyard and your backyard, obviously, and there's a lot of lobsters, and we just dove a little bit up there in Pennekamp a couple of weeks ago, and there was seemingly quite a bit of lobster.

Those lobsters -- That's a real good plus for the guys fishing in Pennekamp, because they don't have any of their lobsters getting touched, and, when they open the season, they have a good production rate, and so Pennekamp is kind of like -- It's doing its thing, and it seems to be working, and that doesn't seem to be exponentially growing, and I don't think we need to get into that.

MS. STAFFORD: That's good, because I couldn't remember if they closed it to trapping as well, and that was discussed at one point.

MR. NICHOLS: It was, yes.

MS. STAFFORD: So, if they're managing to keep that open, and it's working, that's something that maybe Biscayne could --

MR. NICHOLS: Jessica might be able to speak to that better or something, too.

MS. MCCAWLEY: I don't know that I'm an expert on the Pennekamp model, but we did look up the Legare, and that new square is 756 acres.

MS. STAFFORD: Is there any way to know how many people we displaced with that closure? I mean, it sounds small, but I'm wondering -- You're just going to end up pushing people in other areas.

MS. MCCAWLEY: Well, I don't know, and I did go on a ride-along in the park recently, and, of course, there's no traps in there, and so I don't know how many people have fished in the Legare, or maybe set traps near the Lagare, and then they ended up inside the Legare, and then, based on that treaty and the strange nature of that shipwreck, they don't want to tell you exactly where the shipwreck is inside that area, which is why they're trying to say no traps and trying to not make it any smaller, because no one is supposed to know exactly where the shipwreck is located in that box.

MR. NICHOLS: I would probably suggest having Bill comment on this, because he's more geared in with the Key Largo guys, maybe, and do you have any big input on this?

MS. MCCAWLEY: One more thing, and so already there's no diving in there, and so you're not allowed to even have any type of viewing device, or even get in the water inside the Legare, because the treaty says that nobody can try to see that shipwreck, and so there is already restrictions on diving or snorkeling or anything in that area.

MR. NICHOLS: I think the guys up in Key Largo are really -- They are used to having -- When I say the guys in Key Largo, now, coming from Miami, you have the Miami River, and you have a lot of people that are, you know, from different countries and stuff, and maybe aren't as up on regulations and stuff, and I noticed that growing up, even in south Florida, there up in the Miami/Hialeah area, and that's an education process that's really tough, because it's a total different world, but the guys that are going to fish in those zones, and they already know how Biscayne National Park is being affected, and I think, if you identify those guys, you're going to already put pressure on those people to be more adept at keeping track of where they are and what they're doing and how their trapping is.

You're going to make them accountable a lot more, because you're going to know who they are to start with, and, if they don't have their stuff in there, you need to put some fines in place, to make sure that the regulatory bodies check those people out a little bit, to make sure that they have their permit, because that's going to -- It's a big area, and there's a lot of people coming out of Miami. I don't think it's going to be the guys coming from the Keys, because they're still going to hit up Ocean Reef, and we don't have anywhere to put the traps, when you get to Ocean Reef east, or north, and that would be north there.

MS. MCCAWLEY: Well, that's all I really had for you guys, and do you have other questions for us?

MS. STAFFORD: Well, I think it would be good to have Bill Kelly weigh-in on some of these, if that fits in with the schedule.

MR. KELLY: My name is Bill Kelly, and I'm the Executive Director of the Florida Keys Commercial Fishermen's Association, and I am not a member of this advisory panel. I would like to address a couple of issues, number one casitas. I have recently addressed that issue, when I first heard the Fish and Wildlife Commission suggest that staff reexamine this.

This was brought up back in 2011, and I noticed that Mr. Matthews is here, and, if my memory serves me correctly, FWRI issued a study on the use of casitas in the spiny lobster fishery, and they examined some of the economic harm that would take place, which would be absolutely devastating, but, also, they indicated that there were a number of other issues, including the transferability of the PAV1 virus, because of close association of these animals, and they're very social in nature, and, also, the peripheral damage that takes place.

Naturally, you have predators that accumulate around casitas, whether they're a structured item that would be placed out there and anchored to the ocean floor or whether it's in its present form, which is mostly just piles of junk and other debris that's out there. Mr. Matthews, would you care to comment on that?

MR. MATTHEWS: Casitas, used properly, in adult habitat, or large animal habitat, probably don't affect PAV1 or increased predation. Casitas used wrong, in juvenile habitat, because those are the

animals that come down with the virus, would be a huge problem, because, again, you're aggregating them, and it's a huge problem to predation, because, in the wrong place, where there are small lobsters, it is just a dinnerplate. That grouper that we talked about digging out from under them would be highly-predacious on them. Proper use of casitas probably is not bad, but then you would have to figure out what is the proper use and things like that.

MR. KELLY: Thank you. Then, in terms of law enforcement, and this has been discussed quite extensively by myself and others with FWC Law Enforcement, and I will cite the Dreifort case, and David Dreifort and his wife conducted an illegal operation in the Lower Keys, and it was rather extensive, and they had 1,500 illegal casitas out there. At the time of their arrest, they had over 6,000 wrung lobster tails in freezers on their property. Their properties were confiscated and sold, and they were fined, and they did prison time, but the monies that the FWC recovered, and NOAA Law Enforcement -- They went out and attempted to clean up these casitas.

With the funds that were available, they were able to remove 500 of the 1,500, and it was so extensive that they filled twenty twenty-cubic-yard dumpsters with debris of all types, everything you could think of. One of the most horrendous things that occurred here though was the predators that were associated with those casitas were red groupers, black groupers, and goliath groupers, and they were taking -- They were spearing these animals, including the goliath groupers, and selling them to several restaurants down in Key West as legally-harvested fish, and, of course, the goliath grouper was one of the most threatened endangered species at the time.

We're talking about switching from a trap-based fishery, ostensibly to protect corals. Every time you see a picture of marine debris, they show a picture of a lobster trap, instead of some of these piles of junk that are out there, the materials and beer cans that litter our shorelines from these harbor sandbar events and things of that nature.

I would think, in the total amount of waste that's out there, spiny lobster traps contribute a very small percentage, all right, and we need to get focused, and we need to change this image. We are currently working, and I will be going to a meeting on preemptive collection of derelict traps and so forth, and I'll be doing that in just a couple of hours here, and so there are measures that are taking place, and industry is doing its part. The general public needs to do it as well.

Back to this casita issue, and let me paint the picture, real quick, of the commercial fishing industry in Monroe County. It's the second-largest economic engine, next to tourism, all right, and tourism is a monster, at in excess of \$3 billion. Chuck Adams, a noted marine economist from the University of Florida, placed our industry, with turnover, at \$935 million, and that was several years ago, and we're now bumping up against the \$1 billion mark.

Employment is 4,500 jobs, strictly boat-related, all right, and there are 1,650 commercial fishing permits held by residents of Monroe County, generations of fishermen. You collapse this fishery, the commercial industry in Monroe County, and you're going to collapse the economy, or at least do extensive damage to it, and so, again, with those studies that were done by FWRI, supporting documentation and so forth, I think we've got a lot of firepower here to present in Tallahassee, whether it's in front of the commission or in front of our state representatives and legislators.

The next thing is Biscayne National Park. Sitting to my left is one of the most compelling witnesses in an investigation by the House of Natural Resources Committee in 2015, working with

Ileana Ros-Lehtinen and Chairman Rob Bishop of the House Natural Resources Committee, a number of us, myself, Ernie Paton, Manny Taliedo, and Ms. McCawley testified before the Biscayne National Park.

It was mindboggling, and Mr. Carlstrom, the park superintendent at the time, portrayed Biscayne National Park as a graveyard. We took -- Part of his comments and so forth were that, in two weeks of diving, being an avoid diver, he never saw a legal-sized edible fish out there, and one of the surprises came from Chairman Bishop, and we took him out with Captain Jimbo Thomas, and we were supposed to take him out for a day of fishing. It then got down to a half a day, and, by the time he stepped on the boat, he said, I've only got two hours to go fishing, and we said, wow, and it's a twenty-minute, or thirty-minute, run just to get somewhere where we can go fishing.

We ended up on a patch reef, and I think there were nine, or let's say twelve, fish that were identified as problematic there, and we sat on that patch reef, and, with FWC personnel onboard, we caught nine of those twelve species of fish, and we caught like fifty or sixty fish, in total, and we caught legal-sized of every single species that was on the list, and we begged Chairman Bishop to let us take him to the edge of the reef, so we could catch the barracuda and two other species, and he said, sorry, and I don't have time.

When Mr. Carlstrom made his presentation at this meeting, and he said, I haven't seen a legal-sized fish out there in two weeks, Chairman Bishop said, well, then perhaps you can explain to me how this happened, and he rattled off those numbers, and he said, could you please explain that discrepancy to me, and Carlstrom could not, but, you know, you're not going to catch yellowtail if you don't go where they hang out. You're not going to catch tarpon if you don't go where they hang out, and that was the bottom line.

I think some of the important things, as I recall correctly, and if I'm wrong, Ms. McCawley, is the disregard that Biscayne National Park had. When they formed the park, not only did they not work with industry, as was pointed out by FWC, but there were a number of instances where they didn't work with the state either, and they refused to address no-fishing zones and things of that nature, and we've been very proactive.

In our South Atlantic Council's Spiny Lobster Amendment 11, we developed sixty new coral protection sites, when asked to do, and they wanted fifty originally, and we pointed out that, from our knowledge, our fishermen, that some of these sites didn't even have corals anymore, and they had that badly battered, and so, again, instead of fifty sites, we gave them sixty and made them exclusively no-commercial-fishing zones, to protect corals. Why would we want to destroy the habitat that harbors the animals that we harvest for a living? The other fact is we risk entangling our gear in corals, at forty-bucks apiece for a lobster trap, and it just doesn't equate.

We wanted that to be on the record here, and I appreciate the time that you've given me, and industry has a history of doing its part and working with management, and we'll continue to do that, and I'm proud to be here and have the opportunity to share the information. Thank you.

MS. MCCAWLEY: Thanks, Bill. Anything else you want to talk about with the FWC or any questions for Tom?

MR. NICHOLS: I've got a topic. I will talk about lobsters. We're going to be replaced, in the not-too-distant future, some of us that over fifty-five, or sixty-five, or there's a couple of seventy-fives, and we were talking about a poundage and what you've seen, but you already kind of said that, as far as where we're at. What do you think -- You know, you've been around a long time. I mean, Tom has been here, and you've been on the boat since -- He's probably been here damn near as long as I was.

MR. MATTHEWS: We're old.

MR. NICHOLS: What was that, back in the 1980s, that we were doing studies with you, right?

MR. MATTHEWS: I was on your boat in 1989.

MR. NICHOLS: 1989. Okay, and so it's been a while. We went on the boat for ten or twelve years, at least, or fifteen, and I don't know. Whenever you wanted to do something, we did something.

MR. MATTHEWS: The first year I was here, I rode on 119 different commercial fishing boats and measured catch, in one year.

MR. NICHOLS: So there's nobody with the record and the experience that he has, and he loves to dive, and he's been around the Keys, and what's your prognosis, or prediction, being after all these years -- I had to make -- I kind of made the comments, but what do you think the future of the -- Let's just keep it on lobster, but the lobster industry is, because that's kind of what you've been -- What we're here for.

MR. MATTHEWS: How I've described our lobster fishery, it is a stable -- We are 6 percent of the harvest in the Caribbean, and it is all one species. It is very highly mixed, and the larvae stay in the water for six months. We are the downstream recipient of regulations and the population in the Caribbean. It is overfished in the Caribbean. Landings have been in decline for the last twenty years, very slowly.

Our landings in the Keys mirror that, and, right now, our landings, for the last decade, are about 20 percent below what they were, what I would say is the heyday in the 1990s. Because of that, we don't know for sure, and we have recently found a relationship between the very small lobsters, and I'm talking something the size of a fingernail, that comes into the Keys every month, and we now know that two months a year drives the population in the Florida Keys. Those months are usually in the spring, and so we monitor that, and, based on that, that allows us to predict that, this year, coming up, starting in August, it will be sort of the normal year for the last ten years. We're estimated to be about 4.7 million pounds of commercial.

That's the first time I've said that out loud, and now I'm on the record of seeing how good our math is. This year. Are we worried there's a recession coming? Human nature, in a recession, the first thing people do is not buy lobsters, it appears, and it doesn't matter that it costs the same, but people just don't buy lobsters anymore.

Hurricanes, this is supposed to be an above-average hurricane year. It doesn't matter if it doesn't hit here, but, more often than not -- On average, every five years now, a major hurricane hits the

Florida Keys, which is a huge loss to the fishery. Not necessarily lobsters themselves, but the gear, and, at seventy-dollars a trap, even if it only took out 100,000, which would be a minor hit for a hurricane here, what's that math?

MR. NICHOLS: Like after Irma, the guys would be done, and there's just no way -- It would be like no way out, and it just -- I mean, I really don't know, and we were able to get some funding, but you're not going to get the wood, because it's not there, first of all. We can't get materials, and there is no rope. The shipments of -- There is no rope. I mean, we cannot get rope to put on the -- I mean, I've got every fisherman calling me, and I bought pallets and pallets of rope, and I let everybody use it, until I don't even have enough rope to do anything, and so there's just -- We just have the same problems you see with COVID, with the shipments of things.

With the wood, the Honduran pines, they're almost non-existent, and they're selling it for home-building, and home-building prices is the same thing, with materials, and so I don't know what would happen. I was fortunate, and I know three or four manufacturers of traps, and most of those guys are gone, and we have only -- We have to build them ourselves, but we have to get the wood to build then, and we would be in a pickle, for sure.

MR. MATTHEWS: We're down to 330 trap fishermen. In 1996, we had about a thousand. How many fishermen does it take to maintain the commercial trap fishery? It's not like you can add more gear. You're already working, and, I mean, I know how many traps you have, personally, but most fishermen have sort of increased to even the 3,500 range, and you don't have the labor to pull 500 a day, and you don't have the storage, with the gentrification of the docks, and so there's a number of things that seem to be coming at a head.

You started off the meeting saying you felt pretty good, and you are the eternal optimist. You're a commercial fisherman. You sort of have to be, and I'm sitting here wondering what regulations are needed to preserve the trap fishery, because I'm seeing thirty people disappear a year. In a year like 2008, with that true recession we had, we lost a hundred commercial fishermen, and we're shaking up to be in that situation right now. What can we do?

Rebuilding traps, something you just said, and, now, I have a little bit of luxury here. I'm a scientist sitting here talking, and I don't make the regulations, and so I can think about this stuff and now say them out loud, and so that's my safety zone. If we lost 300,000 traps again, in a year like Irma, would you like a regulation that only allows rebuilding of a certain number of them?

We, of course, have certificates, and we cut everybody a certain percentage, based on what was lost. Give the fishery a year to rebuild. Instead of that money going -- If federal disaster money came in, it could go into escrow. If landings are down, fishermen get paid for what wasn't caught. If the lower number of traps catch the lobsters, which I truly think they could, and you didn't put the money in the investment, and you still made the money, and you had that safety net, and so, as a disaster management plan, can we -- Is that something that would be suitable?

MR. NICHOLS: You're asking me --

MS. STAFFORD: That sounds like we're farmers now. We're going to get paid not to fish.

MR. NICHOLS: We need the farmer supplement. If we could come up with something where they put it in a federal process, where -- You know, that's a really big nut there.

MR. MATTHEWS: Yes.

MR. NICHOLS: It's one that, if you went to a hundred fishermen, you may get five, and you would probably get the ones that are fifty-five and over, because we're kind of at the end of ourselves a little bit, kind of coming down. If you get the younger generation, I don't know what you're going to get. It's very reasonable, what Tom is saying, and I know -- As a businessman, I have made the decision, based on what I see in sixty-five, which isn't really time to retire, but you've got to think about, okay, I've got to reduce the traps, and I'm trying to make it manageable, where I can go to one boat.

I would like to have done it in one year, but I'm kind of doing it in stages, because even selling down -- If I were to go put say 7,000 lobster traps on the market, I'm going to flood -- It's going to take me forever to sell them, but, if I just tell people that, okay, I'm selling some, and I sell 500 here, or 600, or 100, or 200, that's kind of the way I think it's going to work with the reduction thing. I'm really stunned though, and we have not really reduced that number to the 400,000, in all these months and years, but the younger people are going into business.

I feel a little different about the future though, as far as the fishermen. I really think that we're going to have people to replace us eventually, and they're going to find a way. They may have less traps per boat, and they may be trucking the traps out on trailers, but, somehow or another, the 400,000 number that we're getting to is low enough, and it's not like when we used to have a million traps, and so although now we have the new economic factor of who can afford that, and that's going to be -- There's a lot of people with a lot of money, and I do see -- In this fishery, what I have seen -- The biggest change in the last few years is we have corporate buyers that are buying.

Right now, there is -- I'm just going to use an example of the fellow that just bought my boat, The Life Force, and he's from Australia, and he's paying the money for a guy to run the boat for him, to captain it, and they're going to fish it out of Keys Fisheries. There's already one other boat down there at Keys Fisheries, and it was my other boat that I had, that a doctor and a lawyer -- He's a surgeon, and he has a tremendous amount of money, and he was going to buy my fish house, and he has financed a guy into business with 2,500 traps, and that seems to be the nature of the beast.

It's a great tax deduction. If you're making a lot of money, it is the best tax deduction that you're going to find, and so that lawyer is probably making, or that doctor, or the guy from Australia is making a lot of money, probably, more than we're making catching the lobster, with a tax deduction, and so we may see that, but I don't see the people being gone, and they're not worrying about the fact that we're going to have a hurricane or our traps are going to be blown away. That's going to be a write-off for some traps, and it might take them a year, and I notice, the way they do it -- I'm just been in hyper speed and wanting to get my traps repaired.

After Hurricane Irma, we were able to get almost 4,000 traps back in the water. I had a thousand on land, and I had 3,000 traps on an island, and I smoked the lobster. Nobody had traps out, and I annihilated them. I was catching 2,000 or 3,000 pounds of lobsters a day. I mean, I can go telling everybody that, but, if you can get the traps in the water, and we busted butt. We had to dig traps

out of an island, and the trees were all torn off, and the dock was destroyed, and we were basically over there in mud up to our kneecaps digging the traps out and hand-trucking them one-by-one to the boat, but, one-by-one-by-one-by-one, we got 3,000 traps off that island and in the water.

When you got them in the water, and there was no other traps in the water, and they were full, and they were big lobster. I don't know why, but, after the hurricane, those lobsters got displaced, and, once we figured -- They were widespread. I mean, the Cramers, they put some traps right along the shoreline, and I didn't put any along the shoreline, and the same thing.

Somehow, the fishermen find a way, because that's what we do, and then economics kind of is driven not so much because we have the mom-and-pop and the guys like myself, that's been doing this, and I'm passing it down to my younger generation, and you have the investors still coming at this fishery, because it is a great -- It is the hardest thing. In fifty years of doing this, I've had so many ups and downs, and you're not going to be a millionaire from lobster fishing. No way. It's not happening.

You make it by making a little money and investing it into some property or something, and, fortunately, you have some trap certificates you can sell, but it is not from the money I catch with my lobsters. I pay taxes on what I catch with my lobsters and stuff, but the profit isn't there. I don't care who you are or how long you -- You do it because you love the water, you know the men of sea, the women of the sea, and it's in your blood, and it's the hardest job for the least, probably, amount of money that you keep, by the time you pay these expenses.

A lot of us guys maybe will be gone, and, like I said, we can't really take too much of a hit. I mean, I pray to God that we don't have a hurricane, and even one hurricane coming close -- Most of the time, unlike Irma, it displaces the lobster, and you lose the season. You won't have the migration in the Hawks Channel, and so you're going to lose all that, and, usually, whenever the storm even comes close, and say it started in July sometime, and you usually don't have a very good lobster season, and I don't know, and it puts them somewhere, and someone is going to catch them, and it might be Miami, and it might be Key West, but, you know, if it comes through your area, you're in big trouble, at least from my humble fifty years of doing this thing.

Irma was an oxy -- It was a weird thing, and thank God I had a little bit of foresight, and I have always planned for the future, and that was one of the -- My God, I had to have, and it was just -- We didn't have near the money, and I had to borrow \$450,000 from SBA, and I still haven't paid but maybe \$20,000 back, on my fish house, because it got torn apart, and there's no insurance for none of that stuff. We had the structure, docks, land, and everything else, and the traps, but, you know, I don't know what you do. They're not going to just give you money every time. We got lucky that we got some money given, but, anyway, Tom, that was awesome. I enjoyed hearing all that, except for -- That might be an idea for the future.

What you have, that's certainly something that goes hand-in-hand with what we've talked about for years, and it's like the farmer subsidies, and why can't we get in on some of this farmer subsidy stuff, somehow, in the Department of Agriculture or somewhere?

MS. MCCAWLEY: You guys did get some money from USDA recently, and I'm trying to think of what year that was, and I'm looking at Bill, but, yes, it was based on tariffs, and so they gave

fishermen some money, following the imposition of tariffs, primarily by China, but, yes, and so USDA did come through on that, but it's been a few years.

MR. NICHOLS: If I'm not mistaken, Bill, that all went to fish houses, all the tariff money, right, or people that were processing, and it was the processing of the fish, I thought, the tariff stuff, and I don't believe I got any of that money, on the tariff end, even though I sell wholesale, but I sold to like the Cramers, and they buy from the other fishermen there on the island, and he got a considerable amount of money, I mean a lot, and, I mean, it was really, really great, and he deservedly deserved it, but, me, even though I have my wholesale license and everything, I didn't have the landings in that place, and so not very many of the actual fishermen got it. The fish houses needed it, because they didn't -- I have a fish house, but I'm not buying. I chose -- When I bought it back, I promised my wife, in 2004, that I wouldn't buy from anybody, and I have never bought anything from anybody since then, except for our family.

MR. MATTHEWS: That was a good point that she brought up, and we went through a lot of scenarios with the feds on how that money was to be dispersed. I actually didn't know how it ended up getting dispersed, but that's an area where lobbyist input from the fishery and things might have been effective, to allocate how it was given out.

MR. NICHOLS: We got allocated zero for that tariff thing, and we got allocated zero. I was at 29 percent loss, but, if you weren't at 30 percent, you were thrown out of both of those give-outs. On that, I lost so much money, but, because I went and was working -- If you worked your butt off, you don't get rewarded, and so we worked our fannies off, everybody working for me, so I could pay my guys and my family, and got these traps in the water and caught some lobsters, and so many landings didn't look terribly depressed, but why would you go take a \$450,000 loan?

They should have looked at the big picture of, okay, we've got a fish house destroyed here, and you get zero, even though you have 29 percent? 29 percent is still a big chunk, when -- You know, just say, for instance, our business -- You know, one is about \$2 million a year gross income or something, and you lose 30 percent, and that's a chunk in a hurricane year. It's \$700,000, and so what in the world, you know? I got zero, not a nickel. Twice.

So, somehow -- There is no flexibility in government. I mean, you call a guy, and then that got regulated through FWC somehow, and it just was so hard. I mean, working with the federal government, I've always had ten-times better luck, over time, with things, normal, but we have had -- It just seems like, the more bureaucracy something gets put over -- I don't know, and I've had really good -- The federal government has treated me good over the years, in fishing from Hurricane George, Wilma, Irma, and the SBA is a nightmare, and don't ever deal with those people. They're terrible, terrible, terrible people, but we got some money, but we got -- Anyway, that's another story for another day, but that's the --

You know, I had the largest lobster business in the United States, spiny lobster business, and to get zero for the loan, from both of the biggest payouts that they had, and catching the most -- My production was really good, and zero? I mean, that still gives you a bad taste, you know, and it really does. I shouldn't be in debt \$450,000 and have to pay SBA when I sell my fish house.

That \$450,000, I should have had from what just the average person, even somebody who didn't even have a fish house -- What's really said is, the people that got this money, a lot of them had

no facility, no infrastructure, at all, zero. We have actual property, but those guys got money, and why? Of course, they deserve the money they got, everybody, but why the people that had the stuff didn't get it -- There was an inequity, and there still is.

MR. MATTHEWS: That's what I'm wondering. Can we have a hurricane disaster plan, so we have something in place, because you know it's going to happen.

MS. MCCAWLEY: We can. I don't know how we would go about doing it, because it seems like every hurricane is unique, and so, when we try to get ready, but, yes, it's something that we could talk about, as an agency, sure.

MR. MATTHEWS: I am just trying to be proactive, because we know it's going to happen, and it's one of -- I wrote down two major theories you all had, that zero-tolerance case, and I don't know, and Simon probably doesn't recall, but I was on his boat when the Coast Guard pulled him over. There was an undersized stone crab, out-of-season, egg-bearing, and it was held onto by a lobster, and the mate threw it in the live well, and I didn't even see it. Four violations. You lose your license at three, don't you?

MR. NICHOLS: The only ticket I got in my life on fisheries violations was back probably in the -- It was about the time when you were doing the study. I had a mate on the boat, and my boat -- It was the old Miss Beth, the same one that you went on, and I didn't even use mates most of the time, and I just pulled traps by myself, and we had three boats, and we had three captains, and we would get a mate when we could get a mate, even back in those days.

My wife was teaching school, and she was making sixty-dollars a day, and so paying a mate sixty-dollars a day, and then it went up to seventy, and I told her to quit school and whatever, but, anyway, I had -- My mate, this knuckleheaded -- He was a big six-five guy, 350 pounds, and I said, here comes a marine patrol boat, and we have the trap on the -- I mean, we can't hide nothing, and the guy is coming, and it's one day before stone crab season, and there is two stone crabs in the trap and a wrasse.

I told him, I said don't throw anything overboard, and so he throws it in a blue tote right on the engine box, and, of course, he didn't throw it back, and the guy comes up, and he says, well, what's that, and he says, oh, you know it's stone crab season tomorrow, and you're saving -- I'm one of the very few fishermen that does not box-up stone crabs. There's a lot of guys that start baiting for stone crabs in their lobster traps a month before the season, and I never have done that.

I don't come in on opening day out of my lobster traps with -- If I get twenty-five pounds, it's a lot. You know, maybe fifty pounds or something, and dammit, I got a ticket, and I go, well, I'm not going to go to court, and I'm just going to write a letter to the judge, and say that I've been here doing this all the time, and you think, okay, no big deal, and that was a big deal, because it was on my license, and, fortunately, I was on -- It would have kept me off this council right here, and I honestly -- Thank goodness we have some laws passed that the fishermen -- The mates are responsible, and I wish there was more fishermen here, and I keep throwing around that the mates are responsible.

I tell me guys, and I say you are getting the ticket if those lobsters are mis-measured in that live well. You're going to get the ticket, and, now, I'm going to go to jail, probably, because that's

usually what they do, but, if I have more than fifty lobsters in this live well, I have told you -- Everyone that knows me knows that that's what the deal is, and the stone crabs are the same thing, if you mis-measure or you do whatever, but the bottom line is that I'm still going to have this long hassle, and this big deal, and it's going to be in the newspaper, and I can't believe, in fifty years, it hasn't been in the newspaper, and I never had a big deal.

I guess the ticket that I got -- It was like two crabs, but I don't even think they had legal claws on them, and it just said stone crabs out of season, and I'm like -- He says, I'm not going to give you a ticket for the fish, and I think it was a -- It was a wrasse, and it wasn't even a law then that you couldn't have a wrasse, but he said it was a parrotfish, and I said, well, in reality, it was a red wrasse, and there wasn't a law that you couldn't have a red wrasse. It wasn't even a marine life thing, and so, okay, but that's just the way it is.

That's the scare that we all have, and the next generation -- I mean, my goodness gracious, you know, and my son-in-law is from Mexico, and we're trying to get him legal, and that's another big deal, and we've been five years paying all kinds of money, and he's trying to be a U.S. citizen. He's paid his taxes, my daughter and him, and it just takes so much time, so much time, and I got pulled over by the Coast Guard, and they said, well, we're going to get you, and we'll give you a \$10,000 fine, because your son-in-law is not legal. Well, he's got a driver's license, and he's married to my daughter for now ten years, and we're still fighting to get his stuff done.

They used his business -- Just, for instance, he's showing that he's getting like \$200,000 a month in income, because they put him through the business, my business, because he works for me, even though they're filing as the couple, and so they have to go pay a lawyer to get that -- So it's sometimes crazy, something that seems simple, but, you know, you still have to deal with some lawyer or something, and it's tough being a fisherman, let's just say anyway.

MR. MATTHEWS: Something else you said about the future of the fishery, and I wrote some stuff down, and I thought I heard you describe two scenarios, one that it would go to small fishermen. Pretty much no other fishery in the world has done that. It is different in the Florida Keys, and the other one was investors taking over, and that's really where the majority of large fisheries have gone. Businesses take them over, and then the fishermen work for the business.

Are either of those scenarios good or bad things, and are you -- Rules can be passed to drive fisheries in a certain direction. For example, and I hate to bring up casitas again, and we limited the number of divers and took away casitas. Now there aren't even 250 commercial divers, and we effectively took away that aspect. If there had been no rule, divers could have taken over the fishery. Now, that wouldn't have been as effective a harvest, and so there's a bunch of things, economically, why that wouldn't have been good, but, in the lack of regulations, divers would be much more plentiful today than they would have been. Back to what you saw as the two futures of the fishery, financier-controlled or would there be an evolution to smaller fishermen?

MR. NICHOLS: Honest to God, I think that that corporate thing is going to probably be the only way to keep -- Just what you're saying is kind of going on here. The fishermen -- There is not enough money, income, with the costs that we have, and so you almost are going to have to have that, but you're going to employ a lot of people to make money, and so, yes, you don't want to get it out of hand to where -- That's probably going to need to be addressed at some point in conversations and stuff, to legitimize to how much of that can go on.

You can't just -- I don't see it being out of hand right now, because there's not as many -- It's still hard, even for those guys. Probably, if you asked, especially the surgeon -- Probably, if I was knowing him, he may not want to mess with it that much longer, and he's got to deal with some headaches, and it's still a headache, no matter what. He's losing traps, and he's going to lose boats, and he's going to have to hear from his captain, and I don't know how many headaches you want to have.

I don't want any more headaches, personally, and so it's not just -- But at least -- I think you're lucky you have those guys, in this particular environment, and so that could be an issue, and I think we've got to really keep an eyeball on that. I really believe that you're going to see the -- I hate to use the Cramers, but they're really good friends of mine, and they have fished -- Ty is actually probably going to try to take over his dad's thing, and he's done a really good job, and I'm so proud of that kid, because he's just -- He was a smart kid, but never went out on the boat with his dad, and never really participated in the fisheries stuff, and he's doing -- He's working and kind of working towards going to take over his dad's business.

I see the same thing with Eddie Kelly and my family, kind of doing the same thing, but I don't see -- I even suggested -- I was just talking to Scott, a little while ago, and I don't see my son-in-law Eddie, and I will use him for an example, and he's fishing one boat, a forty-three Torres, just like one of my boats. I had two Torres and a forty-six Newton, and he's fishing maxed-out traps. He bought the business from his dad, and he had the hardest time that anyone would ever have, because he bought it the year that Hurricane Irma hit, and it destroyed all of his stuff.

Then he's trying to pay his bills, and thank God he had his father, and he had me, and I was able to, fortunately, loan him quite a substantial amount of money to get a motor for the boat and to -- I was supposed to get paid back the next season and this and that and the other, and it's taking him a while, but he's a working son-of-a-gun, but he's fishing about -- Almost 4,000 lobster traps with one boat, and he's fishing -- Well, I let him fish about 2,400 of my stone crab traps the last couple of years. He's going to go down a little bit on the crab traps, but you're trying -- If I was young, that's what you're going to do. You want to max-out the most that you can fish, and most of the young guys that Scott has -- He has the elite fishermen there, because he's got the room.

Those guys are very well organized, and most of those guys are fishing with the corporate money and being able to get -- Keys Fisheries is kind of unique, because they loan money to the fishermen. When I had my fish house, I never had the money to loan to my guys. I had thirty fishermen, or I had forty fishermen, I guess, at one time, but we couldn't loan them money. I wish we could have, but I didn't have it to loan, you know, and so they have something that a lot of places don't have. In most of the fisheries, we don't have a way to get a loan or something, but I kind of really believe that the guys -- The guys I see making money --

Just take the Cramers, and they are fishing no crab traps, hardly at all, and maybe 3,000 lobster traps, which is a lot with just a little Crusader, but they pull those lobster traps one week, and they always take the weekends off, and they don't work at all. They only fish inshore, and they don't have any traps that are out in the Gulf, and they don't have any traps more than five or six miles.

We also have, on the same island, Rick and James, another young family, and their son -- Rick Turner's son, he is learning the business and building his business, and they're working guys, and

they're fishing a couple thousand traps per family, and it's working out. Their overhead stays low, and you've got that Crusader, and you don't have that big overhead.

The most money I've ever made in my life in this fishing business was running the old Miss Beth and myself pulling the traps, having a mate if I needed it, and you never could make money to keep. I caught as much as -- Over 100,000 pounds of lobsters out of less than 2,500 traps, many times, with that boat, by myself, with nobody, and so that's where -- That may be where -- If I was to go back and do this, I would rather fish 2,500 traps, with a Crusader or something, than trying to keep up with, you know, almost 20,000 traps our family fishes, with just our three boats, and so, anyway, that's kind of why I say that.

I see that bottom line, and Jeff and Steve -- They're not having to be stressed about always getting -- I've got eight or nine guys working all summer long, all the time, and you can't find any help, and so they don't even have any guys. They don't keep anybody but his son working. Jeff or Steve, he goes on vacation, and he gets his traps, and he doesn't work all summer, and that is -- I'm very jealous of that scenario, and that's where I want to be, and I'm working my butt off and trying to make myself into that, and hopefully in the next couple of years.

MR. MATTHEWS: That's the scenario I'm asking about. You also said, which I have heard and lived by, is can you just leave us alone, but there is so many things stacking against the fishery right now, some regulatory, and most economic and gentrification. Regulations could ease the transition into a small-boat fishery. More trap reduction would be one, which you have actually brought up several times, and we just keep wondering what to do to reduce that stress.

MR. NICHOLS: Honestly, what should happen with the stone crab fishery -- That's just a prime example of out-of-control crazy. We go and we have three regulations passed last year, and I would -- They will burn me at the stake to --

MR. MATTHEWS: There were five regulations.

MR. NICHOLS: Five regulations. At one time. I mean, one fell swoop in a fishery that needed -- The size, there was no biological reason, was there? I mean, at least not seeing so much on the size of the crab.

MR. MATTHEWS: The stone crab fishery was in trouble. If we knew everything, and could implement perfectly, it could have been possible to only do one, but I think the concept was let's try everything, because it should be an incredibly valuable fishery.

MR. NICHOLS: It is now, and so maybe it's not -- I can't really say anything bad, because this is the most cash money I've ever made stone crabbing, and I -- It's money, and, I mean, it's green stuff, and it never was. Crabbing has always been a numbers game. Pull 800 traps, and I used to catch a thousand pounds of crabs a day, every pull, out of 600 traps, and then that was twenty-five or thirty years ago. Now, you catch 200 pounds of crabs, and you pull 600 or 800 traps, but 200 pounds of crabs now -- I was getting three-dollars, five-dollars, seven-dollars, and we were getting, you know, twenty, thirty, and forty, and fifty, basically. I mean, you can kind of pick a number.

We're getting somewhere around twenty-five-dollars a pound, and I always said our fishery would be great if got, across-the-board, ten-dollars a pound. The same thing with the lobster. If we got

ten-dollars a pound, across-the-board, on the lobster, we all could be in an actual halfway decent know you're going to make a living. We never can regulate or hit that number, and so it's always -- This is the most stressful thing.

I'm going through all kinds of weird age-limiting things, because of just changes, you know, and we've had changes, and I usually can do them, but we've had so many changes so fast, and then trying to reduce a business, and I agree with Tom about the trap reduction. If we would have put in that regulation, I would have given 20 percent of my crab traps to not have lost 25 percent of my medium crabs.

I would have given those, no question about it. My certificates were going to be worth more, and we would have less impact on the fishery. The fishery -- The traps weren't being reduced, and we suggested 10 percent, and that wasn't even on the table, and we just got whacked with a size, and we've never even tried the escape rings. We got two weeks last season, but, dammit, I would have -- I talk to fishermen all day long, and we thought, and were pretty sure, we were going to get 10 percent.

Now, on the lobsters, yes, I mean, what you're saying about the hurricane kind of thing and rebuilding, and it would give everybody a more equal playing field, so that the guy that can't build a lot of traps -- That's all -- In a hurricane plan, that's something really great to work on with you guys, and I'm looking for something new to work on, but, if I go bring that up for -- If Bill brought that up, he wouldn't have a member tomorrow, and OFF wouldn't have a member, probably, tomorrow either in the lobster fishery, especially a lobster reduction, right? I mean, after the trap certificate program, that's a tough nut.

I mean, that's the hardest thing, and we don't -- We splintered everybody, and that's how come Florida Keys Commercial Fishermen came out to start with, and I gave the first thousand dollars to Monroe County Commercial Fishing Organization, to Dave Horan, and I was the first thousand dollars that went to Dave Horan, and I became the first president of that organization, because I didn't want to change. we were doing just fine the way we are.

Okay, and so then what am I doing? If we pay Dave -- What is it, \$250,000, and he comes, and he says, hey, if that plan that OFF has doesn't work, you guys are going to have -- We had a sunset rule of 250 traps with escape gaps in them, and each fisherman was going to have 250 traps, and I would be fishing 250 traps, and I would pull 250 traps in a couple of hours, and so we got off the stick, and then that's when we started traveling to Tallahassee, and we got the legislation, which was monumental, passed through the legislature, and we at least reduced the traps.

I think, yes, we could have went passively, and, I mean, we could have went -- Instead of passive, we could have had an active reduction, a little bit more, but who would have thought it was going to stop where it is? Tom, you're great, and I would put it on the record, and I would say that I can't really say anything on that, because the industry is going to have to -- That next generation is going to have to deal with that. I think I'm -- They came at me with guns just for trying to make something valuable.

The certificates were worth zero, and my best friend sold me 2,700 traps and a boat for \$27,500, and he had landings, and he would have qualified, and I told him just to keep his certificates, and I was lobbying Tallahassee. If he would have just kept -- He would have got his 2,750 certificates,

and he was an older guy, and he just wanted to go to Georgia and be a gunsmith, and he left, and I got just old traps and shit, and that's all he had, for \$27,000.

MR. MATTHEWS: The lobster industry trap certificates are now worth \$920 million. That's a lot of value created out of thin area.

MR. NICHOLS: I was saying that I just sold the certificates for \$200 and \$210.

MR. MATTHEWS: \$200 times 460,000 is \$920 million.

MR. NICHOLS: Fortunately, between my daughter and myself, we have like 7,200 traps, and so it's a good chunk. I mean, it's a nice retirement, and so thank God for that, and thank God for OFF, and thank God for -- Also, thank God for Jerry Sampson. If anyone doesn't know, I will say on record that he's retiring, and he's been there for almost right at fifty years, forty-nine years, and I've been a member and past president of OFF for forty-five of those years, and, you know, he's a smart guy, and was a marine biologist at first.

He gets a little repetitious, because everybody has heard him for so long, and so I don't know who we're going to have. There's a young lady from Cortez that's probably going to be our executive director, and we hopefully can bring ourselves into the twenty-first century, because we have no website, and we really have no way of getting membership, hardly, and so hopefully OFF will regenerate itself, and the people that are here will pay their hundred dollars, which isn't a lot, but it's been a -- But Jerry has really been awesome.

Any fisherman in the world that fishes -- Any fishermen in the Keys that fishes lobster or crab traps could mail that guy a check for retirement, I mean, because they would not have anything of value. They would have -- I guarantee you that they would have 250 traps with escape gaps today, right now, or they would have something that wasn't close. We may have been like Maine, because we met with -- During that time, we brought all the guys down from all over the world, from Alaska, from Maine, from as far as Australia, down here to talk to the fishermen about different limited-entry systems.

We have the first fishermen-derived limited-entry system in the world. These other fisheries got pushed into it. If you fished out of Maine, you're going to have 1,300 traps, 800 traps in one area, and you can have as much as 1,300, if you're offshore or inshore, and they have a very valuable, high-end fishery, but, if you're fishing that here, I don't know. We may have been better off, and you never know, but at least we have a value added, and, even in Maine, you have to be on a list to even get into something when you sell, but you're not going to have -- All I can say is anybody -- I think, from the regulatory standpoint, from the South Atlantic Council and Gulf Council -- I don't know if there's a way to recognize Jerry, but I think he has worked really well with all of you.

I would love to see Jerry get something from his peers, and you all are his peers, and you had to hear him fight stuff, but he's always been reasonable and sound and backed it up with -- I don't think I have ever -- We've never done a vote where we didn't get together as a species committee and have a unanimous vote, or something we were really all on the same boat. We all died with the net ban, and we had no money, and we bankrupted off.

We had 2,000 members, and I was president of Organized Fishermen at the time, and went right down to 300 in a fell swoop. When those net fishermen were gone, we went to 300 from 2,000, and we knew that was kind of the end of the big OFF, and we stayed around 500, and we're sustaining and everything, and we're fine, and Jerry doesn't take much money. \$30,000 a year is all he gets paid, and so, for anybody that thinks the guy has made a lot of money -- He cares about fishermen. He cares about families. He cares about the water. I know he cares about the environment.

Just, for instance, our bylaws for Organized Fishermen of Florida is to preserve and protect the natural resources of the State of Florida. I will never forget it, and that's what I believe, with my family, and my family's family, and my children's children, that we have to do -- We have to be good stewards of the water, and we've got to protect what we have, as fishermen, and, if you see something wrong, you need to -- Something I've always done, and you have to man-up and tell somebody what's going on. You've got to share it with the marine patrol, or whatever it is, and get it fixed, because you can't just sit there and do nothing. You're going to get swallowed up, and, anyway, that's my last piece for the day.

MR. MATTHEWS: Did we have time for one other topic? I would like to draw on Scott's expertise. Right now, the lobster industry lands 50 percent of the product in about fifty days, when the price, on general, throughout the year is the lowest. The lobsters are smaller than the Chinese live market wants, and we sell a 400-gram lobster, just shy of a pound, and they want an 800-gram. Is it possible to do something to deliver larger lobsters later in the season, when the price peaks? Is that something that would add value to the industry that we would like to see?

MR. DEKLE: I think that's a real possibility. While the Chinese are certainly a very valuable market to us, I think it's of critical importance that we make sure that we maintain other markets to sell into, to help keep the pricing up a little bit. Certainly, if you control everything all in one area, they're going to dictate your price to you.

It does seem to work a little bit better later in the year, when supplies aren't quite as heavy, and you're able to command a little bit better price, and I think, the Florida lobster industry specifically, and a couple of guys that I work with and deal with over in Australia that help to facilitate some of the exports, and I keep hearing a very common message from them, that the markets in Asia, and China more importantly, but even Japan still a little bit, because we've had a little bit of product go there and a few other places, but they view our product as a premium product.

We do a better job, in Florida as a whole, of really taking good care of our fish, and we take good care of it, and we know the proper methods and timing of how to kill it and how to preserve the quality of it and how to pack them right, and how to pack it to the specs that they want to see to do that, but then they turn around and they come back and they want to beat us over the head, saying, no, no, no, we don't want to pay more than twenty-two-dollars a kilo to do that.

I've already started giving some pushback to some of the brokers and the people that help facilitate that, to say, what -- Just because somebody else is selling their product dirt cheap, it doesn't mean we have to, if we're considered to be a premium product, and what else is there in the world that's considered a premium anything that you don't pay a premium price for, and it makes no sense, and so hopefully, as a group, over time, we can find a way that everybody can kind of help ease and push some of that pricing back up a little bit.

A little bit, in the beginning of the season, there's a little bit better market, sometimes, for cooked product, but not everybody else is set up for cooking, and I don't know -- This would be discussions that we may have to have more detailed at a later point, but have you guys been able to do studies, at any point in time, on the fish itself and the biomass that's out there, if we start pulling product in on August 15, and we're getting 400-gram fish, for the most part, coming in, what happens to the size of that fish if we wait until August 31, almost like the reverse of shortening stone crab season, and would we benefit as a whole and have bigger fish that would bring more dollars if we just -- I know they've encouraged a lot of the shrimp industry to do for decades, especially up in Louisiana and Texas.

They just can't wait, and they can't wait, and they've got to get out there, and, the first time anybody thinks they can get out on the water, they want to go out, and they fight over catching eighty to a hundred-count head-on shrimp, to sell it for seventy-five-cents a pound. Why? If they had waited three more weeks, the water is warm enough, and the stuff is going to grow, and they would have gotten \$1.50, or \$1.75, a pound for it, but it's just one just hell-bent on outdoing the other guys that it kind of drives a little bit of that.

MR. MATTHEWS: The population models are exactly the same. In ninety days, the entire population would increase its weight by a third, and so, instead of a million and -- Well, let's do the four-and-a-half million, and it would be six million, in ninety days.

MR. DEKLE: That's kind of what I thought, weight-wise, and price-wise, and lobster is an interesting commodity, and it's far different than stone crab, from the standpoint of, with lobster, you basically -- It's just the price per pound, what we're saying, and, if you can say, okay, we're going to pay ten-dollars for everything all season, then everybody knows what they're doing, and it doesn't matter whether it's big fish or little fish.

MR. MATTHEWS: Now, some of the exporters have said it's different. I have heard about the 400 and the 800-gram, and, in China, it's hard to sell that 400-gram lobster. They really want the 800-gram, and, for him to sell it effectively, he says, yes, I will give you the 800s, but you have to take this many of the 400s.

MR. DEKLE: Right, and sometimes you can do that. You can say, okay, you can have this, but you've got to take some of this to go with it.

MR. NICHOLS: On that end, even with Scott though, that 400-gram lobster is the lobster that we use for all of the restaurants, because they want to buy per piece, and so they're going to make the value added, and so they're getting -- That makes up our difference, and that's where our tail market come from.

If we didn't have that smaller lobster, we would end up with, instead of a five-ounce tail, which is basically a legal lobster, we would end up having at least a six or seven-ounce tail, and a six or seven-ounce tail isn't what they want in the restaurants, and it's not what I am going to sell to -- When you see my ad in the paper, I am giving them a 400-gram lobster tail, and the public will line up and pay me ten to twelve-dollars a tail, which is -- I am recuperating a good chunk, because it's an under-a-pound lobster, and so that's something we fought, as an industry, for a long time, trying to increase the size.

I understand the point, that you're going to get more poundage, per pound, and I don't know if you're going to get it in the long-term, because we're going to catch them, ultimately, I think, during the season, and I don't know, and they might grow up in the summer, but who is going to get them? Is it going to be -- It's going to be a hard sell for the fishermen, but, for his industry and what he's doing, he's selling his small ones, just like I am, and they're not mostly going to China, although China is so desperate sometimes that they buy -- Only lately, when we get a good run of lobster, do we get to where -- They will grade the lobster at 1.1, a lot of times, and then we'll get a price for the 1.1 and unders. That hasn't happened in a few years, because we haven't had the production since Irma. Before that, yes.

MR. MATTHEWS: I did very much hear the diversity of the market. I mean, that's safety, of course, in your business, and I used to do the Red Lobster joke. They want to put a twenty-dollar meal in front of you, and the only way you can do that is a smaller tail. Now they do half-tails, instead of the whole tail, and so I totally understand that product, and that's really what Nicaragua, one of the bigger producers, is targeting also, is putting that tail on the product, and so I always thought of that as the safety market, but not the high-value market. That premium product is going to go to Asia, or maybe Europe, and so, where we used to deliver to the American market, and not to knock the Midwest, but they wouldn't know fresh seafood if they saw it.

MR. NICHOLS: We're so close on the Asian and the domestic now, and it's right at the same, and we're looking at about a ten-dollar lobster, and, I mean, that just is where it is.

MR. MATTHEWS: I am regularly seeing, when I look at daily landings, a two-dollar difference in the live price versus the grade price, which, per animal, that's a 20 percent difference, at peak, and certainly, in August, a 25 or 30 percent difference.

MR. NICHOLS: Keys Fisheries is one of the only places that pretty much does that. We sell our lobster, the Cramers and myself -- The people we sell to, we don't ever have a grade difference, and we don't have a -- I mean, we've been taking care of live lobster for a long time, and you have to not overstuff your live wells, and the stupid guy would be the one that just overstressed their live wells, and didn't put the right amount of air into the tank to supply it, or you have a number - - You can see some of the guys that come in with a really weak product, and so that's just -- I think that's more of a handling issue. Keys Fisheries is a big company, and so they do things a little bit different, and I'm just selling myself, and so I'm pretty much, well, if you don't buy these, the other guy down the street is going to buy these, too.

MR. MATTHEWS: Keys Fisheries has a separate price, and what's the general range between -- I'm calling it a dead product, and it's not a dead product, but it's ultimately sold as cooked?

MR. DEKLE: Typically, two dollars.

MR. NICHOLS: That's what we're going to use for those lobsters that I put in the paper or to my restaurant, would be any dead lobster, and that's probably what they're doing as well, but, at the same time, yes, you don't know, and China could be paying -- It's a pretty big number. When I used to actually process and ship to Japan, it was a big number.

You know, we were just offloading the lobsters, and say we're paying the fishermen five-dollars, which is about what it was back in the -- I think it went up to like \$6.90, but, once it got just to California, we were getting eleven-dollars. If they died on the way to California, we were getting eight-dollars, and so it's always been that kind of thing with the live-dead thing.

MR. MATTHEWS: But your opening price last year -- We would love to know what it is this year, but you'll have to wait and see, I guess, and so the opening price last year -- Do you recall?

MR. DEKLE: No, I don't. I wasn't there. I will have to call Mr. Graves for that one.

MR. MATTHEWS: I've got the records, and it was about six-dollars.

MR. NICHOLS: It was five or six dollars. Even trying to do live, it was seven. The two-dollar difference isn't there a lot of the time. It might be at Keys, but, now, if I sell to Larry my live lobsters, and I want to ship them to Larry, it's sometimes -- It's over two-dollars, a lot of times, and I buy back from Larry, if I can, and I like to buy them back from him, but they really -- After they sit in a tank, and then they sort them two or three days later, and you get the dead that comes out, you end up so many away, and they're like a Number 2, and I really don't -- I just stopped doing that, pretty much.

MR. MATTHEWS: The stuff he sorts and doesn't sell -- In fact, he just flat out throws away several percent, and they're just -- It's a product that's not suitable for any market, and he throws those out and just takes the loss, but, by January, that price differential is in the four-dollar range, and now we're talking ten to fourteen, last year, and so that's really where the big gain is, in the main season, the Chinese New Year, lobster. I keep wondering how we can add that level of value, to go from a six-dollar whole cooked lobster in August to a fourteen-dollar live-export lobster in January, and that's where the economics sort of say how do you exploit that market?

MR. NICHOLS: It would be nice to be able to take a section of the Keys, or a section, and actually be able to quantify some of this stuff. If we had a small Cuba, or a small place that we fish, like over in the Bahamas, and you took like the fishermen over, and I'm trying to think, Spanish Wells, for instance, and had them do this, and then it would be awesome to have that study, and then you could sell it just to the fisherman or something, but the fishermen --

As the fishermen stand right now, we've been hammered every year with something, and it's just going to be -- I would have loved to have had Bill a little longer, but Bill would answer you. These organizations that are trying to keep us floating would be not floating, very quickly. It's really hard to get people to come into something and join something, especially after they decide they're not going to be there, and they're probably not going back.

MR. MATTHEWS: Obviously, I have fished with you, and I've heard you today, and those lobsters won't be in the bay. October comes, and they leave the bay, because the bay is not a suitable winter habitat for our lobsters, and so the fishery would be very different, and so I'm not saying this is easy, but I'm just trying to propose the idea that we can increase, 120 percent, the value of this fishery in the same year.

MR. NICHOLS: In the same year. It would be fun to try. Honestly. I mean, I'm at the age that I -- Sure. Okay, but --

MR. MATTHEWS: That way, you get people to think different, because I really do think the fishery is in trouble, much like 2008, and, fortunately, that recession was only a year, but there's a lot of things being stacked against you, hopefully for just a couple of years.

MR. NICHOLS: Well, Tom, you have the most, you know, knowledge of -- You really are hitting the target exactly, but you're not there to talk to the guys on the radio and look the guys in the eye and walk the dock. I mean, like I said, I had people in my backyard with 357s, wandering up my backsteps, because I was supporting a lobster reduction and a trap certificate program.

MR. MATTHEWS: That has now put \$920 million in their pocket. I know what you went through, and I know what Simon went through.

MS. STAFFORD: Well, yes, it's always easy after the fact. You know, one of the other defenses of the idea is I know it would be harder for the guys in the Upper Keys, as far as the lobster leaving the bay area, but, biologically, you give them a longer time to breed, and this is right in their breeding season, and it seems like you let them stay in the water, and I'm a supporter of delaying the season.

I know it would impact me less, in the Lower Keys, than it would in the Upper Keys, but it seems like, overall, you would get a long-term benefit of allowing a breeding population to remain in the water longer, and our product -- You know, in August, the water is so warm, and we get so many more rejects. The longer we could leave them in the water to reproduce, and then come at them when the waters are cooling down, I think we would have better survivability and better price, but it's going to be a terrible sell. I mean, there goes my boat.

MR. NICHOLS: Tom, you're talking about a size adjustment or season or both? Is it more seasonal or --

MR. MATTHEWS: Season.

MR. NICHOLS: Just season?

MR. MATTHEWS: Unlike stone crab, that tried to cover ever base, I think lobster -- If you just delay harvest, the growth change will occur naturally.

MR. NICHOLS: Dammit, but, in all honesty, especially -- If you get the traps in the water after October, you really have a way less hurricane-season-type thing. You know, you're not going to lose -- The likelihood of you losing your traps would be phenomenal. If you're looking at an increased catch, and we actually --

Say you put the traps out about the same time we do stone crab, or maybe a little bit better, even like the first of October or something, and then you're just going to keep bailing traps and everything else and putting them out, but, golly, I don't want to be the one selling it, but I wouldn't be the -- I would like to be the one buying it, because I know you would have -- Your heart would not be getting pulled out of your throat every time a storm comes floating by. The likelihood of a giant, major hurricane in October is a lot smaller. I mean, we have had a couple of big ones, but I don't want to be the one doing it.

MR. MATTHEWS: (Mr. Matthews' comment is not audible on the recording.)

MR. NICHOLS: I go for the thesis on that and the size, and, fishing in the winter or whatever, it's not a big deal, and we don't have the weather so bad that we can't fish. We've been having -- Actually, I see the seasons -- Having kind of a later-season lobster event than we usually have in years, as we reduce the traps a little bit. We are getting a little further back into the season and catching some lobster.

MR. MATTHEWS: Yes, and so we've got some interesting numbers. Even though a million traps, 750,000, is absolutely what was allocated in 1992, we're at -- I will say 450,000 now. There is actually more fishing effort than there was ten years ago, because the value of the Chinese market made it more valuable to fish after January, and so many more traps are in the water now in January, and so, even though there is fewer traps, there is more trap nights. That will continue to evolve. The fewer traps there are, the higher the late season value, and we see that trend increasing.

MR. NICHOLS: If Scott said that to any of his boats, at any of his fish houses, whether it be Everglades Sea or down here in the Keys though -- The mentality in Keys Fisheries, for pretty much forever, since I was a young person, a really young person, was to bring in your traps by Thanksgiving-time. Normally, they definitely would have them out by Christmas-time, and, now, it used to be Thanksgiving, because those fish were flushing out of the bay, and it was about maybe the first of December, and, by Christmas, they were in.

Just like you said, the guys are fishing longer, but those guys are still bringing in their traps a lot earlier than what I am bringing in the traps, but not all of them. I mean, like my son-and-law and other people are starting to -- Everyone is fishing for every ounce of poundage, money, you can, especially after the hurricane. Right now, we've been in a state of -- When we were in those heydays of the price being -- When the prices were up at twenty-dollars, or twenty-two-dollars, we were only catching a hundred, or 200, pounds a day, but, still, it wasn't very much at all. It was no reason that I would have wanted to -- I would have never left my traps out.

I used to bring my traps in on January 1, all the time, and I would leave some of my deeper-water traps out until the middle of March, but, when the prices, when they were at that twenty-dollar peak, there was no way, I mean, and most of the people still are thinking that that's happening, and now our traps are -- They've got to look at the traps are getting eaten by the worms so bad. When the winter comes, they eat up all your traps, the worms, and your trap loss and all that stuff.

I don't lose hardly any traps prior to January, and so, here, we bring that season back, and there's a two-sided, double-edged sword. As soon as the tourists come down in Thanksgiving-time, we will lose -- I guarantee that I lose 50 to 75 percent of my loss comes in that time, and I guarantee, when the water is clear, and the way I fish, and where I fish, I don't lose but maybe 4 or 5 percent, and you would probably lose up to 20 percent, or 25 percent, of your gear when you get into that winter-time fishery, especially in the inshore waters.

MS. WIEGAND: All right. I am looking around the table, and it doesn't seem like anyone has anything else to bring up. Going once, going twice. All right. Well, if that's the case, that was all we had on the agenda. I can see, briefly, again, if there's anyone who wants to make public comment in the room. Most everyone has been speaking up, but, if you're online, and you would

like to make public comment, just go ahead and raise your hand, using that turkey-looking button on your screen. All right. I am not seeing any hands, and so I think that's all we have for today.

I just wanted to say thank you, guys, so much for coming out and participating in this meeting. I think we had a lot of really great sort of open-ended discussion today that's going to provide a lot of value, both for the council and for FWC, in moving forward with managing this fishery, and extra special thanks to Jessica and Tom and C.J. and all the FWC staff that was here today to really help bring a lot more value to this conversation, and, with that, I think we are adjourned.

(Whereupon, the meeting adjourned on June 29, 2022.)

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Certified By \_\_\_\_\_ Date: \_\_\_\_\_

Transcribed By  
Amanda Thomas  
August 31, 2022

Spiny Lobster AP Attendee List  
6/29/22

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# Spiny Lobster Advisory Panel

## Attendee Report: Meeting

Report Generated:

06/30/2022 11:22 AM EDT

**Webinar ID**

931-233-891

**Actual Start Date/Time**

06/29/2022 07:55 AM EDT

**Duration**

7 hours 44 minutes

## Attendee Details

| <b>Attended</b> | <b>Last Name</b> | <b>First Name</b> |
|-----------------|------------------|-------------------|
| Yes             | BROUWER          | MYRA              |
| Yes             | Chaya            | Cindy             |
| Yes             | Foss             | Kristin           |
| Yes             | Garb             | Cindy             |
| Yes             | Garber           | Chip              |
| Yes             | Helies           | Frank             |
| Yes             | Iverson          | Kim               |
| Yes             | Klasnick         | 01Kelly           |
| Yes             | LaChapelle       | Brent             |
| Yes             | Mehta            | Nikhil            |
| Yes             | Murphey          | Trish             |
| Yes             | Sebastian        | Beb               |
| Yes             | Smillie          | Nick              |
| Yes             | Wamer            | David             |
| Yes             | brewer           | 00chester         |
| Yes             | thomas           | 01suz             |