

GULF OF MEXICO FISHERY MANAGEMENT COUNCIL  
MIGRATORY SPECIES COMMITTEE

Hyatt Centric French Quarter New Orleans, Louisiana

JANUARY 29, 2020

**VOTING MEMBERS**

- Greg Stunz.....Texas
- Susan Boggs.....Alabama
- Roy Crabtree.....NMFS
- Jonathan Dugas.....Louisiana
- Paul Mickle (designee for Joe Spraggins).....Mississippi
- Lance Robinson (designee for Robin Riechers).....Texas
- John Sanchez.....Florida
- Ed Swindell.....Louisiana
- Troy Williamson.....Texas
- Lt. Mark Zanowicz.....USCG

**NON-VOTING MEMBERS**

- Kevin Anson (designee for Scott Bannon).....Alabama
- Leann Bosarge.....Mississippi
- Glenn Constant.....USFWS
- Dale Diaz.....Mississippi
- Dave Donaldson.....GSMFC
- Phil Dyskow.....Florida
- Martha Guyas (designee for Jessica McCawley).....Florida
- Chris Schieble (designee for Patrick Banks).....Louisiana
- Bob Shipp.....Alabama

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- Matt Freeman.....Economist
- John Froeschke.....Deputy Director
- Beth Hager.....Administrative Officer
- Lisa Hollensead.....Fishery Biologist
- Ava Lasseter.....Anthropologist
- Mara Levy.....NOAA General Counsel
- Natasha Mendez-Ferrer.....Fishery Biologist
- Emily Muehlstein.....Public Information Officer
- Ryan Rindone.....Fishery Biologist & SEDAR Liaison
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- Greg Ball.....Galveston, TX

1 Chester Brewer.....SAFMC  
2 Karyl Brewster-Geisz.....HMS  
3 Kenneth Daniels, Jr.....SOFA, FL  
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6 Brad Gorst.....Palm Harbor, FL  
7 Tom Haugen.....FL  
8 Gary Jarvis.....Destin, FL  
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13 Bob Zales, II.....Panama City, FL  
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15  
16 - - -  
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1 The Migratory Species Committee of the Gulf of Mexico Fishery  
2 Management Council convened at the Hyatt Centric French Quarter,  
3 New Orleans, Louisiana, Wednesday morning, January 29, 2020, and  
4 was called to order by Chairman Greg Stunz.

5  
6 **ADOPTION OF AGENDA**  
7 **APPROVAL OF MINUTES**  
8 **ACTION GUIDE AND NEXT STEPS**  
9

10 **CHAIRMAN GREG STUNZ:** We will call together the Migratory  
11 Species Committee meeting. The members of that committee are  
12 myself as Chair, Mr. Robinson as Vice Chair, Susan Boggs, Roy  
13 Crabtree, J.D. Dugas, John Sanchez, Paul Mickle, Ed Swindell,  
14 Lieutenant Zanowicz, and Troy Williamson, and all of those  
15 members are present.

16  
17 Our first item of business would be Adoption of the Agenda. Are  
18 there any edits or additions to the agenda? Seeing none, I  
19 would entertain a motion to approve the agenda. It's moved by  
20 Mr. Sanchez and seconded by Mr. Robinson. Any objections or any  
21 opposition? Then we'll consider the agenda approved.

22  
23 The next item of business is Approval of the Minutes, and we  
24 last met in June of 2019, and are there any changes to the  
25 minutes? Seeing none, I would entertain a motion to approve the  
26 minutes. Motion by Mr. Sanchez, and Mr. Robinson seconds. If  
27 there's no opposition, the minutes are approved.

28  
29 The next item of business is going through our Action Guide and  
30 Next Steps, and we have a relatively short agenda. There's an  
31 update on some AP meetings on ICCAT from the HMS Division, and  
32 then we have a presentation regarding some of the comments we've  
33 been hearing at public testimony regarding shark depredation,  
34 and so, with that, Dr. Hollensead, do you want to go through our  
35 action list?

36  
37 **DR. LISA HOLLENSEAD:** Yes. Thank you, Dr. Stunz. The first  
38 agenda item on the docket today is, in September of 2019, the  
39 HMS AP met to discuss a number of management issues, and these  
40 discussions range from the progress of several amendments in the  
41 scoping process, stock assessment updates for a number of HMS  
42 species, and presentations on shark abundance and depredation.

43  
44 Also, in that same month, the International Commission for the  
45 Conservation of Atlantic Tunas, and so the ICCAT, Advisory  
46 Committee also convened. During this meeting, the committee was  
47 given an update on recent stock assessments for shortfin mako,  
48 white marlin, yellowfin tuna, and bluefin tuna, and so Dr. Stunz

1 has been active in these meetings, in these proceedings, and so  
2 he's going to give the committee a verbal update and summary of  
3 those proceedings.

4  
5 Additionally, there was something that I wanted to draw the  
6 committee's attention to, and so this was just received this  
7 week, but a U.S. delegation summary report from the 2019 ICCAT  
8 Annual Committee is now available, and so that meeting took  
9 place in November of last year.

10  
11 We have put that up on the briefing book website, just for  
12 reference for the committee, if they would like to go into a  
13 little bit more detail to those proceedings that Dr. Stunz will  
14 touch on today as well.

15  
16 Then the second item we have for the committee is, as Dr. Stunz  
17 had mentioned recently, we've had a number of concerns raised  
18 relative to the increased number of sharks observed on fishing  
19 trips and depredation of catch from sharks, and so quite a few  
20 of the public testimony comments have been in regard to this.

21  
22 In response to that, we have some staff from HMS to come speak  
23 to us, specifically Ms. Karyl Brewster-Geisz, and she's going to  
24 give us a presentation on recent trends of abundance for several  
25 common shark species within the Gulf and also touch on some  
26 information regarding shark depredation, and, unless there's any  
27 questions about the action guide, that would conclude my  
28 overview.

29  
30 **SUMMARY REPORTS FROM THE HMS AND ICCAT AP MEETINGS**

31  
32 **CHAIRMAN STUNZ:** Thank you. If it's the will of the committee,  
33 and if it's okay, I will give just a brief overview of what  
34 happened at that advisory committee meeting and sort of the  
35 intent of that and how it relates to our group.

36  
37 Last fall, there were two meetings in Silver Spring regarding  
38 the advisory committee that advises ICCAT, and those two  
39 meetings mainly were to deal with this BAYS group. If you  
40 remember, we wrote a letter, a joint letter, among several  
41 councils dealing with bigeye, albacore, yellowfin, and skipjack  
42 tuna, and, obviously, with yellowfin the most relevant to this  
43 council.

44  
45 In addition to that meeting, it was to deal with those tuna  
46 groups as well as mako sharks, but, to step back just a little  
47 bit and give you an idea, we haven't been real active with this  
48 group, but, because of the issues developing with sharks, makos,

1 and the tunas, I felt like we probably -- There is a good  
2 opportunity here for us to get in our input as it relates to  
3 management of these species, which greatly affects a lot of our  
4 different regions.

5  
6 The main goal of this advisory committee is to advise the ICCAT  
7 commissioners on U.S. policies as they develop strategies going  
8 into their meetings. Martha was also there, and so, Martha,  
9 please feel free to jump in if I'm missing something, as well as  
10 several in the audience.

11  
12 Obviously, we have representation on that advisory panel, by us  
13 being there, and, if there is any issues we would like to take  
14 forward to that committee, we certainly now have a direct  
15 mechanism to do that. Another just interesting aspect of the  
16 committee is, when you kind of look behind the curtain of how  
17 these different committees handle some of the same challenges  
18 and issues we face, it actually is very interesting.

19  
20 It made me feel a lot better about the challenges we have, and  
21 not to diminish what we're doing, and, I mean, we have some very  
22 difficult decisions ahead of us, but, in this case, when you add  
23 in migratory species moving through many, many jurisdictions,  
24 and different countries involved, and things get complicated  
25 very fast, and so it wasn't quite as -- It made me think that,  
26 hey, we can really solve some of the problems that we have here.

27  
28 In addition, the way that this committee works is, because  
29 you're developing U.S. strategies that are confidential, it's a  
30 confidential process, and all the documents we receive -- Like,  
31 at this meeting, they're given to you right then, and you've got  
32 to read them on the spot and make a strategic, on-the-fly  
33 decision and then give the documents back, because of the  
34 confidential nature, and so it's a little more high pressure and  
35 that sort of thing, but it made me feel better, just in general,  
36 about, you know, we can really accomplish things around here,  
37 when you really look broader at some of other complicating  
38 international highly migratory species.

39  
40 To give you some ideas of what is complicating things that might  
41 be related to us, and even occurring in the Gulf, to some  
42 extent, is you've got ghost fleets fishing that we don't even  
43 know about, and that's the number-one problem, and you've got  
44 other issues of foreign fleets flying vessels of opportunity to,  
45 obviously, increase their catches, and there is very strong  
46 incentives for non-reporting at all, or severe underreporting,  
47 or even overreporting, to make your numbers look better.

48

1 Related to these BAYS species that we've been talking about, the  
2 outlooks aren't looking too good. Bigeye tuna, which isn't a  
3 huge concern for us, obviously, but yellowfin is, and I will  
4 talk about that more in just a second here, but it was generally  
5 okay for albacore and skipjack, and more details are in that  
6 letter that we joined in on that was in the briefing book from  
7 the last meeting, if you're still interested in that.

8  
9 The solutions are not very much different on these things than  
10 what we might have, in terms of help giving them some levers  
11 they could pull to do things. Obviously, just like the  
12 fisheries we deal with, observer coverage is a big problem, and  
13 increasing that. Electronic monitoring, imposing regulations  
14 that really have some teeth in it, but, the way it stands in  
15 these international fleets, the incentives are so great that  
16 they kind of flaunt rules and compliance and that kind of thing,  
17 and so it's very, very, very difficult.

18  
19 You have some great compliance by some countries, and some  
20 countries you have zero compliance, kind of tragic -- A classic  
21 example of tragedy of the commons. You know, you have one  
22 group, kind of spoiling it for everyone, that doesn't want to  
23 comply, and so it made me feel like, as the Gulf Council here,  
24 we're in a pretty good place, because we actually can control  
25 some of that, and so our problems are a little more manageable,  
26 and so that was some good news coming out that.

27  
28 On to some species that we kind of care about, and we're going  
29 to hear more about sharks here in just a minute, but the main  
30 one we looked at was mako, and that's a pretty pessimistic  
31 outlook for mako, pretty bleak, in the sense that new estimates  
32 came out about their age at maturity, which was eighteen to  
33 twenty-one years, as opposed to the old eight to nine, which  
34 greatly, obviously, impacts their ability to recover.

35  
36 If you looked at no fishing at all, there's only a 50 percent  
37 probability of recovery by 2045, and so that's it, and, of  
38 course, there is major non-directed catch in all the longline  
39 fleets, and so that's a big deal. There is -- If we had,  
40 essentially, none of this fishing, or minimal, at 700 tons of  
41 what it is, it's still going to take fifty years, or we're  
42 looking at 2070 before we see any recovery, and so that's not  
43 great.

44  
45 There's a lot of issues, and those fish come in live, and  
46 they're obviously of high commercial value for their -- They're  
47 one of the few sharks that are desirable to consume, but  
48 releasing them, if they're alive at haul-back, they actually do

1 very well, but what happened is that the ICCAT, in their  
2 meeting, couldn't come to any agreement on that. There are  
3 several proposals, and so they kicked the can down the road of  
4 status quo for one more year, and so that's even going to  
5 further extend the plight of makos.

6  
7 Obviously, that's a big fishery for us here in the Gulf, and so,  
8 what that means to us, I don't know. Kind of stand by, and we  
9 can take our Gulf concerns to this committee, as necessary,  
10 through that advisory panel process.

11  
12 The other species of interest to us is white marlin. The big  
13 issue there are dead discards in the longline fleet and very  
14 little reporting, or no reporting. There's a 400-ton TAC on  
15 those species, and that's exceeded every year, and it's making  
16 it very difficult to meet any rebuilding schedules, because we  
17 consistently exceed that TAC, and there's a lot of unknowns, and  
18 back to the observer problem.

19  
20 It's the same deal. There's a lot of potential there, because  
21 they're alive at haul-back, many times, and the recommendations  
22 were to use the circle hooks, but most countries wouldn't agree  
23 to use circle hooks, which would improve that live at haul-back  
24 status. Anyway, there's still some issues there.

25  
26 All of us are familiar with Dr. Calay, who often sits at this  
27 table, and she gave a great presentation, as the lead scientist  
28 on our yellowfin tuna assessments. There is sort of a little  
29 bit of a good story there, but maybe not so good. The  
30 assessments aren't as bad as some would have expected in what  
31 you hear from that fishery.

32  
33 It's not overfished, and it's not undergoing overfishing, but  
34 it's right on the cusp on that, and there's a recovery rate  
35 looking down to 2033, with a 70 percent probability, but then,  
36 for the shoe to fall on that one, we're exceeding our TAC every  
37 year by 100 tons on that, and that's been a shift to smaller  
38 fish.

39  
40 Similar to the makos, the age at maturity was just revised to  
41 eighteen years from eleven, which is going to lead to all these  
42 new mortality at age estimate changes, and so probably the next  
43 assessment isn't going to look as good, and so we've got some  
44 issues with yellowfin tuna. If I had to guess, that's probably  
45 the biggest concern for us around this table. If anyone is  
46 interested, we can form opinions to take into that advisory  
47 panel.

48

1 The last just brief thing here is bluefin tuna is the same kind  
2 of story there, but they are still in the middle of models, and  
3 that assessment is getting extended, for a variety of reasons.  
4 Something to keep an eye on in the Gulf, and you might have  
5 heard, is we have always caught bluefin tuna, but they seem to  
6 be occurring a little bit more regularly, or maybe there's some  
7 targeting going on and that sort of thing, and so that's a  
8 concern for some of us around the table.

9  
10 Related to just some other miscellaneous items, as I mentioned  
11 the last time, Mexico was positively recertified, which is part  
12 of the process that goes on during ICCAT, in terms of how they  
13 are -- It's certification in terms of how they are managing and  
14 complying with regulations, but they were still identified as  
15 having big problems with IUU fishing.

16  
17 What that means is they can still carry on business as normal,  
18 but they're on this bad list, that, if they don't remedy the  
19 situation, and there's going to be more consultation with the  
20 National Marine Fisheries Service, but the next report for that  
21 -- By the way, it mainly stemmed, for us, related to all the  
22 lancha fishing coming up from Mexico down in south Texas,  
23 although there is some other problems that Mexico has that  
24 aren't related to the Gulf.

25  
26 That won't be remedied until the next report in 2021, and so  
27 we'll have some discussions later today, I'm sure, on the lancha  
28 fleet, and so there's not a lot of -- Because there is,  
29 obviously, consultation with National Marine Fisheries Service,  
30 but they are currently recertified, and so they'll be able to  
31 continue their operations.

32  
33 All that led up to the ICCAT meeting that occurred in 2019, and,  
34 generally, that's the report that Dr. Hollensead was talking  
35 about that's in our briefing document, if you want to know more,  
36 but the highlights from that were the U.S. was successful in  
37 advancing those priorities, especially as it relates to  
38 rebuilding marlins, blue and white, and so stay tuned for that.

39  
40 There was more protection given especially to the juvenile  
41 tunas, which is a big concern, and I won't get into that, but,  
42 if you're interested, the juvenile aspect of that fishery is a  
43 big concern, and, as I mentioned earlier, they still couldn't  
44 resolve these mako issues, which I'm sure we'll be hearing more  
45 of.

46  
47 Anyway, I don't want to give a whole presentation, but just a  
48 verbal update of what's going on with that ICCAT and any role,

1 and so I will open that up for questions or really, maybe, if  
2 there's any comments to this committee about how we want to  
3 interact with that ICCAT Advisory Panel. Dr. Shipp.

4  
5 **DR. BOB SHIPP:** Thanks, Greg. Thanks for the update. Was there  
6 any discussion of blackfin tuna at all?

7  
8 **CHAIRMAN STUNZ:** There was a little bit of discussion, but I  
9 don't recall, Bob, exactly what that was. I will have to find  
10 out and see what's going on with the blackfin.

11  
12 **DR. SHIPP:** Yes, because we've been hearing the same story that  
13 we've heard with sharks, except the opposite, that blackfin are  
14 nothing like they used to be, but it's just anecdotal, and so I  
15 was curious.

16  
17 **CHAIRMAN STUNZ:** I don't recall offhand, Bob, but what I can do  
18 is I will review the report and things and try to get back  
19 during the report-out during Full Council on blackfin. Chester.

20  
21 **MR. CHESTER BREWER:** Thank you, Greg, and thank you for your  
22 optimistic note. I served on the AP, this AP, for ten years,  
23 and it sort of reminded me of a story that my uncle used to tell  
24 about a man who was hitting himself in the head with a hammer.  
25 They asked him why he was hitting himself in the head with a  
26 hammer, and he said because it feels so good when I stop.

27  
28 The one thing that I -- Of course, I'm not on this council, but  
29 I am on the South Atlantic, and these are issues that concern  
30 both of us, and the one thing that Russ Dunn and I worked on for  
31 a long time, and this relates to the BAYS tunas, is the  
32 situation in the Gulf of Guinea. Until that situation gets  
33 under control, I have fears for those tunas, because they are  
34 purse seining those things and longlining those tunas in there  
35 mercilessly, and they have been doing it for years.

36  
37 You have seen the size of the catch, and, last time I looked at  
38 it, I think the average catch, or average size, or weight, was  
39 2.2 kilograms, and so they're killing the babies over there, and  
40 they're killing yellowfin over there, and those BAYS tuna all  
41 swim together, and so, when you're netting up skipjack, you're  
42 netting up all the other BAYS tuna, and I would -- Since you've  
43 got this great optimism, I would love to see a very strong  
44 emphasis put on the Gulf of Guinea and putting some significant  
45 restrictions in there.

46  
47 **CHAIRMAN STUNZ:** To that point, Chester, I wouldn't say it was  
48 optimism with the ICCAT process. After seeing that, it was a

1 little more optimism about us here, that we don't face some of  
2 those challenges, but, yes, the Guinea problem with the tunas is  
3 a big issue, and it's going to -- Obviously, what happens there  
4 affects us, because of the migratory nature of these species and  
5 others, and so how we deal with that, I don't know, but, as we  
6 move forward and we begin to have discussions on what's going on  
7 with yellowfin tuna, even though that's not a species we're  
8 directly managing, we do have input through that process,  
9 through this, and I guess that's my main take-home message for  
10 this group, and then, what that looks like in the future, I  
11 don't know, and we're just beginning.

12  
13 We had been active in that in the past, and then not so much for  
14 a while, and now, all of a sudden, we're back in a little bit,  
15 and so I guess it's more of a stay-tuned with this group to see  
16 where things go with those species that are relevant to the  
17 council.

18  
19 Is there any more questions regarding the ICCAT Advisory Panel?  
20 Seeing none, then we'll move into the next item on our agenda,  
21 and that is the presentation of shark population abundance and  
22 depredation by Ms. Brewster-Geisz.

23

24 **PRESENTATION ON SHARK POPULATION ABUNDANCE TRENDS AND**  
25 **DEPREDATION**

26

27 **MS. KARYL BREWSTER-GEISZ:** Thank you. Good morning, everybody.  
28 For those of you who do not know me, I am Karyl Brewster-Geisz,  
29 and I work for the Highly Migratory Species Management Division  
30 up in Silver Spring.

31

32 I am here today, per your request, to talk about shark  
33 depredation. Shark depredation is not a new problem. It has  
34 been going on for years, and I think, as all of you are aware,  
35 it does have negative impacts on other species as well, in terms  
36 of quantifying what that mortality is, and it has negative  
37 impacts on fishermen and those of us who like to eat fish, in  
38 terms of lost revenue and lost seafood and some gear damage  
39 across all the fisheries, along with the negative social  
40 impacts, in that a lot of recreational anglers may not want to  
41 go out fishing for name-your-favorite-fish, because they are  
42 going to be concerned that they're not going to get to land it  
43 or see any, because of the sharks.

44

45 When I first started with HMS back in the mid-1990s, we never  
46 heard reports about shark depredation. We were dealing with  
47 overfished species, and we were dealing with pretty strict  
48 management and different repercussions of that.

1 Now, we hear about shark depredation on a regular basis, and  
2 it's just been growing over the past few years, and we're  
3 hearing about it from everywhere, all of our different regions  
4 and all of our different fisheries, including HMS fisheries, and  
5 so it's not just a Gulf Council issue, but it is an issue up and  
6 down the coast and in the Gulf and in the Caribbean.

7  
8 Sometimes it makes the news, and other times people just call us  
9 to find out what they can do. Both this council and the South  
10 Atlantic Council have written to us in recent years to request  
11 some sort of solution or action to solve the problem, and part  
12 of what I'm here to talk to you about today is the fact that any  
13 solution -- It's not just as easy as go out and fish for the  
14 sharks. There are problems and concerns when we're talking  
15 about managing a resource.

16  
17 Some of those challenges that we are looking at right now is we  
18 do not have a lot of good data that we can actually look and  
19 figure out what is the problem, what are we trying to solve, and  
20 I think everybody knows that sharks are predators, and they're  
21 going to be eating fish, and so how do we minimize the impact to  
22 other fisheries while still allowing for the sharks that need to  
23 be rebuilt to rebuild, and so we don't have any consistent or  
24 verifiable way of reporting shark depredation at the moment.

25  
26 We don't really know the extent of the problem, other than it  
27 has apparently been increasing in the past few years, and we  
28 don't really know what species are the main culprits. We have a  
29 lot of fishermen who are calling us and letting us know it was  
30 this species or that species, and occasionally we'll get  
31 pictures, like the one that I showed earlier, that you can see  
32 the species, and we can get an idea, but is it always that  
33 species, or is it a different one? Is there different species  
34 in different areas? We just don't know, and some of the species  
35 that are being implicated are both overfished with overfishing  
36 occurring, and other species are really healthy, like blacktip.

37  
38 We have this issue, and we see the challenges, and we want to  
39 find some solution, and part of what I would like is to hear  
40 from all of you on what you think are possible solutions.

41  
42 In order to figure out where we are, sometimes it's helpful to  
43 go back into the past and where did we start and how did we get  
44 here, and so, for those of you who haven't really paid attention  
45 to shark management, it started federally in 1993, and, at that  
46 time, the fishery management plan set up three species complexes  
47 for thirty-nine species, and these complexes were based not on  
48 biology, but on what gears the shark species are caught on.

1  
2 So you had small coastal sharks, and those were primarily  
3 inshore recreational, along with the gillnet fisheries, and this  
4 is the Atlantic sharpnose, bonnethead, blacknose, and we have  
5 large coastal sharks, and this is what many of us think of when  
6 we think about the shark fishery. This is the main commercial  
7 fishery that primarily used bottom longline, and this is  
8 sandbar. At the time, it was dusky. That was the prime  
9 commercial fishery.

10  
11 Then you have the pelagics sharks, and those were the  
12 recreational tournaments happening in the mid-Atlantic and on  
13 pelagic longline fisheries, and so that's blue sharks, mako,  
14 threshers, and so that's how management was established then,  
15 and, at the time, large coastal sharks were deemed to be  
16 overfished. They were assessed and managed as that complex.

17  
18 As time went on, it became obvious that we needed limited  
19 access, and so, in 1999, we implemented limited access for those  
20 species of sharks, and that is still in place right now, and it  
21 split the commercial permit holders into two groups, the  
22 directed group, and so the people who could target sharks, and  
23 an incidental group, and so those who might be targeting  
24 something else, such as your snappers, but were allowed to land  
25 a limited number of sharks, and that is still in place today.

26  
27 Throughout the 2000s, we started managing sharks more and more  
28 on a species basis, and, for that management, we also had more  
29 and more species-specific stock assessments, and so it's gotten  
30 a lot more complex. We also added three species, back in 2015,  
31 and so those were the smooth dogfish, Gulf smoothhound, and  
32 Florida smoothhound, and so all of those are sharks, and they  
33 are managed in the Shark Management Group, and it's an open-  
34 access fishery, and so it's slightly different than the others.

35  
36 At that time, with the different species-specific stock  
37 assessments, there was the determination that some of these  
38 species are actually two stocks, one in the Gulf and one in the  
39 Atlantic, and so, for species like Atlantic sharpnose, we have  
40 an Atlantic sharpnose stock in the Atlantic, and we have an  
41 Atlantic sharpnose stock in the Gulf of Mexico, and they are  
42 managed separately and under their own quotas.

43  
44 We're now up to forty-two species and forty-five stocks, and,  
45 for most of this time period, from 1993 to 2015, the quotas,  
46 commercial quotas, were taken, particularly for large coastals,  
47 really, really quickly, and we're talking a couple of weeks, in  
48 some cases, and a couple of months, in other cases, and

1 sometimes we managed to close the fishery in time, and we were  
2 right at a high-ninety percentage, and other times we missed the  
3 mark and we blew over. That happens, and so we moved. After  
4 2015, things started changing, and this corresponds with what we  
5 are hearing about shark depredation.

6  
7 As I said, we started doing species-specific stock assessments,  
8 and so these are some of the recent stock assessments for our  
9 large coastal shark species, and Gulf blacktip is right up at  
10 the top, and that's that light-blue line. It's perfectly  
11 healthy, and it is way above the maximum sustainable yield line  
12 at one, which is the dashed line, and everything is great with  
13 that stock, and we can land a lot more than what people have  
14 been landing.

15  
16 The other species, as you can see, are all down below maximum  
17 sustainable yield. Sandbar sharks are overfished, but they are  
18 on track for their rebuilding, and they're actually slightly  
19 ahead, and so they will be rebuilt later on in the 2000s, and I  
20 don't think any of us will be alive when that happens.

21  
22 The same with dusky sharks. They are overfished, with  
23 overfishing occurring. This is a species that has been  
24 prohibited since the year 2000, and it still is undergoing  
25 overfishing, and we are currently in litigation about whether or  
26 not we took enough action to reduce mortality. They will be  
27 rebuilt in the year 2107.

28  
29 Then you have scalloped hammerhead, and scalloped hammerhead is  
30 overfished. While here in the Gulf of Mexico and up the coast  
31 it is just overfished, from the Caribbean south, that population  
32 is listed under ESA as threatened, and so there are some large  
33 issues to deal with in terms of biomass of large coastal sharks.

34  
35 This slide is the slide of the small coastal sharks, and we've  
36 had a lot more assessments of them, and you will see differences  
37 in these, whereas, for these species, they are going down, and  
38 then they are going up, and so not too many of the small coastal  
39 sharks were overfished, and this slide also has the smoothhound  
40 shark, which is not a small coastal. It is separate, but it's  
41 perfectly healthy as well, and, in the Gulf of Mexico, there is  
42 no fishery for the smoothhound complex. The one species here  
43 that is overfished is the blacknose shark, and, in the Gulf of  
44 Mexico, blacknose is prohibited.

45  
46 I have said, in recent years, we have heard more and more about  
47 shark depredation, and we have also seen a change in the quotas,  
48 in that the commercial quotas for large coastal sharks have not

1 been taken, and this was a huge shift, and so, here, there's a  
2 lot of acronyms on this slide, and WGOM stands for western Gulf  
3 of Mexico, and that is for the group that is basically  
4 Louisiana, and it's anywhere to the west of 88 degrees  
5 longitude, and then EGOM is east Gulf of Mexico.

6  
7 Within those two groups, we manage both blacktip, the aggregated  
8 large coastal, which is that large coastal complex with a bunch  
9 of species taken out, and then hammerheads, the smooth, great,  
10 and scalloped, and, as you can see, the quotas have not been  
11 taken. They have been down in the 70 percent level, or lower.

12  
13 The Gulf of Mexico as a whole, we manage the small coastals, and  
14 that's that non-blacknose small coastals, and that has always  
15 been low. The small coastal quotas have never been reached.  
16 It's always been the large coastal. Then you can look down, and  
17 all of the quotas are low. If this had been 2015, they would  
18 all be up in the nineties, except for, as I said, the small  
19 coastals and the smoothhounds.

20  
21 While we don't have a specific solution for depredation, we are  
22 looking at a lot of changes for management, to try to figure out  
23 what is going on, why isn't the quota being taken, and then, of  
24 course, working in what can we do about the fishery as a whole  
25 and the depredation issue.

26  
27 Starting in 2020, our shark specifications, we have actually  
28 started the year with much higher retention limits than we have  
29 in the past, and we're also looking at different ways of how we  
30 internally are monitoring when we're going to open and close and  
31 when we're going to change retention limits.

32  
33 Amendment 14, we did scoping on that last summer, and that is  
34 basically our ABC control rule action, where we're looking at  
35 how we establish the shark quotas overall once we get an  
36 assessment or if we don't have an assessment, and so that  
37 proposed rule should be out later this year.

38  
39 We are also looking at an action which we're calling spatial  
40 management and data collection. If you remember, we have a lot  
41 of closed areas, one off the east coast of Florida, Charleston  
42 Bump, Desoto Canyon, and there's also some areas that we have  
43 backstopped the councils on, like Madison-Swanson and Steamboat  
44 Lumps, and we are looking at how, now that these areas are  
45 closed, do we start getting data, so we can determine are these  
46 still the right areas to be closed, or are adjustments needed,  
47 and so this a proposed rule that we're also working on for later  
48 in the year.

1  
2 We are currently working on an Atlantic blacktip assessment, and  
3 we finished the Gulf of Mexico blacktip assessment a couple of  
4 years ago. As I said, it's still great, and Atlantic blacktip  
5 has not been assessed since the year 2006, and so we're looking  
6 forward to what that assessment will tell us, and then, starting  
7 after that, we are doing all of the hammerheads, smooth,  
8 scalloped, and great. They will be assessed as different  
9 species, but the assessment is looking at the complex as a whole  
10 and how do you assess these species.

11  
12 This is great timing, because, under the last scalloped  
13 hammerhead assessment, if you remember, they were overfished,  
14 and they were scheduled to be done with rebuilding by 2023, and  
15 so hopefully this assessment will be done by that point and we  
16 can declare a victory on scalloped hammerhead.

17  
18 Biological opinions, these are things that are issued under  
19 Section 7 of the Endangered Species Act, and I mentioned that  
20 scalloped hammerhead is listed as threatened under the ESA from  
21 the Caribbean south, and so the Caribbean includes Puerto Rico  
22 and the U.S. Virgin Islands, and so that is in HMS, but oceanic  
23 whitetip shark is also listed as threatened, and that is one  
24 population worldwide, and so it used to be fairly common here in  
25 the Gulf of Mexico, and so we need to figure out what to do and  
26 how to implement that.

27  
28 Then, internally, we have started a process that we're calling  
29 the Shark Fishery Review, or SHARE. This is where we are taking  
30 a look at the health of the fishery itself, and so this isn't a  
31 stock assessment. This is looking at the entire fishery.

32  
33 This is looking and asking questions like, when we increase the  
34 retention limit, or decrease the retention limit, when we close  
35 the fishery, are we actually having the impact we are expecting  
36 to have, or are things different? How many permit holders do we  
37 still have? Are they increasing, or are they decreasing, or are  
38 they the same permit holders from the year to year? It's all of  
39 that, and we're looking at it in the last seven or eight years  
40 or so, and so hopefully we'll have something to share by our  
41 September advisory panel meeting, but I did have, on the next  
42 slide, a couple of graphs to show now.

43  
44 These are permit holders, and these are active permit holders,  
45 and so people who have reported landing a shark. The top two  
46 graphs are any shark, other than smoothhound sharks, and the  
47 bottom two graphs are large coastals only. On the left-hand  
48 side, you have the Gulf of Mexico, and, on the right, you have

1 the Atlantic, and, as you can see, there is a lot more state-  
2 water fishery permit holders than there are federal permit  
3 holders.

4  
5 The number of permits increase and decrease, depending upon  
6 where you are, and the other thing to note is we are looking at  
7 the landings. While there are a lot fewer federal permit  
8 holders, the landings coming in from the federal permit holders  
9 is a lot more than what is coming in from the state-water  
10 fishermen, and so this is just a preview of some of the things  
11 we're looking at.

12  
13 **CHAIRMAN STUNZ:** Karyl, I do have a question regarding that, if  
14 you don't mind.

15  
16 **MS. BREWSTER-GEISZ:** Sure.

17  
18 **CHAIRMAN STUNZ:** Go ahead, Ms. Bosarge.

19  
20 **MS. LEANN BOSARGE:** On that last slide, I was just wondering.  
21 You said that you've seen a big shift in how quickly the quota  
22 is being met, or not met at all, in 2015, and I'm only seeing a  
23 snippet of your data, and so it's hard for me to interpret, but  
24 that graph only goes back to 2014, as far as active vessels in  
25 that fishery, and we're on the left-hand side, the Gulf is, and  
26 so we're talking about twenty or thirty people, or vessels, and  
27 that's all that fishery is, and I just wondered -- Before 2014,  
28 did we have more vessels? Are we seeing a steady decline and  
29 tapering off in this fishery?

30  
31 **MS. BREWSTER-GEISZ:** It's hard to say. Part of the reason why  
32 we're starting in 2014 is because, in 2013, we implemented our  
33 electronic dealer reporting, and so, at that point, we started  
34 getting all the data, including the data from the states and the  
35 state-water fishermen, so we can actually calculate it.

36  
37 Going back before 2014, we still had limited access. If you  
38 look through our SAFE reports, the number of people who hold  
39 permits has declined slightly, but not a lot, but whether or not  
40 the active permit holders has changed -- I would guess, before  
41 then, it's probably about the same, but I don't have a real good  
42 answer for you.

43  
44 **CHAIRMAN STUNZ:** Thank you, Karyl, and you can go ahead.

45  
46 **MS. BREWSTER-GEISZ:** Okay. Questions that we're trying to ask  
47 all the fishermen who come to us with concerns about shark  
48 depredation are if there are different fishing techniques or

1 strategies that they have noticed that seem to attract sharks,  
2 in terms of sitting on the hook versus trolling versus pelagic  
3 longlines, to try to get some sense of what's going on out there  
4 and if there are specific locations and seasons where  
5 depredation are more frequent. Again, that might help us  
6 pinpoint what species are the culprits that we need to think  
7 about.

8  
9 Then what are some of the best practices that we would have to  
10 quantify the ecological and socioeconomic impact for the fishery  
11 and for other fisheries? These are overarching questions that  
12 we have.

13  
14 To help us with the species identification, there are some  
15 genetic methods that have been introduced to help quantify it,  
16 and this is where they take some of the DNA that's left behind  
17 from a shark bite and use that to quantify, and so it's not an  
18 instantaneous -- That you look at a bitten-up fish and you know  
19 what bit it. It is going back to the lab and figuring that out.

20  
21 Sort of, in summary, we are definitely aware that this is an  
22 issue, and it appears to be increasing, and we are having  
23 trouble quantifying what the extent of the issue is, and we need  
24 a lot more data, whether that's through observers or logbooks,  
25 or maybe electronic monitoring, and we just need the data, and  
26 so we have identified depredation as a research priority, and  
27 so, those of you who submit applications through the BREP  
28 program, for example, depredation was listed, and so all of  
29 those pre-proposals were due last week, I think, and so I'm  
30 looking forward to seeing if any came in about how to research  
31 depredation.

32  
33 The other thing to consider is we do manage sharks under the  
34 Magnuson Act, and so we have the same limitations as the  
35 council. Overfished stocks must be rebuilt, and we have a lot  
36 of shark species that are overfished, and overfishing needs to  
37 be prohibited, or prevented, and we have that issue with a lot  
38 of shark species, and overfishing happens a lot.

39  
40 We need to find ways to work within all of these legal  
41 constraints, including ESA, to minimize conflicts between sharks  
42 and other fisheries and trying to figure out how to ensure that  
43 optimum yield is met for all species. That is pretty much where  
44 I'm at, and we're aware of the issues, and I am definitely open  
45 to suggestions and thoughts and any of your questions that you  
46 might have. Thank you.

47  
48 **CHAIRMAN STUNZ:** Thank you, Karyl. We really appreciate that

1 very informative presentation, and, as you probably know, and  
2 maybe even heard last night during the question-and-answer,  
3 we've got a lot of public testimony recently concerning what  
4 even seems to be elevated depredation issues going on, and so  
5 this is very much of interest to this council, but I'm sure  
6 there are some questions. Bob, I saw your hand up.

7  
8 **DR. SHIPP:** Karyl, that was a great presentation. We operate  
9 out of Dauphin Island, that area, and Marcos Drymon, who is  
10 sited there, has been working with us. Over the past decade,  
11 and this is anecdotal, but, at the fishing rodeos, as well at  
12 the research done offshore with ROVs, there has been a  
13 tremendous increase in the number of sandbar sharks, and I  
14 noticed, on your graph early on, it looked like sandbars were  
15 starting to come back, as the other ridgebacks are not. The  
16 question is what is the process eventually to remove them from  
17 the protected status, so that the industry can start targeting  
18 sharks, like sandbars, that are showing abundance?

19  
20 **MS. BREWSTER-GEISZ:** Thank you. That is a great question, and  
21 so sandbar sharks are currently not allowed to be landed unless  
22 you are participating in the shark research fishery. In the  
23 shark research fishery, we issue about five permits a year, and  
24 it's 100 percent observer coverage for those fishermen, and we  
25 have been getting great science from that fishery.

26  
27 As part of Amendment 14, as I mentioned before, we are re-  
28 looking at how do we set the quotas, how do we take the stock  
29 assessment and take into account the management uncertainty,  
30 take into account the scientific uncertainty, and set up the  
31 quotas commercially and recreationally, so we can manage it.

32  
33 The stock assessment we had for sandbar indicated, as I said,  
34 that they were slightly ahead of rebuilding, and so we are  
35 looking at that, and we're looking at Amendment 14 and trying to  
36 see how it would all work. If we take sandbar off, as you said,  
37 protected status, or remove it so you can land it, how many can  
38 people land? Is it worth it?

39  
40 Last time we looked at this, it would come out to about seven,  
41 eight, ten sandbars per person per year, which is why we  
42 maintained it in the research fishery, but, under Amendment 14,  
43 and the actions that will come after that, we're going to be  
44 looking at it again, to see if we can have a sustainable  
45 commercial shark fishery and maintain the rebuilding of that  
46 stock.

47  
48 **DR. SHIPP:** Just as a caveat, to follow-up, a lot of our

1 underwater research has been terminated because of the  
2 prevalence of sandbars. They are a very threatening species.

3

4 **CHAIRMAN STUNZ:** Ms. Bosarge.

5

6 **MS. BOSARGE:** I am trying to understand your slide where you had  
7 the percentages of the quota that's been landed, and, as I said  
8 before, I'm only seeing a piece of your data here. Is that an  
9 attribute of the health of the stock, because the sharks aren't  
10 as abundant as they should be, and they're not in a healthy  
11 condition? If you go back to where you have the percentages, is  
12 that due to the health of the stock, or is that due to the  
13 continual tapering off of the directed fishery, commercially,  
14 for some of these Gulf of Mexico stocks? Then I have a follow-  
15 up after that.

16

17 **MS. BREWSTER-GEISZ:** That is a good question, and I don't have a  
18 good answer. Some of these species, they should be able to land  
19 a lot more than what they are landing, like the blacktip. There  
20 is no reason why they can't land a lot more than what they are,  
21 and so decrease in how much has been caught is not due to the  
22 status of the stock.

23

24 There are other issues at play, in terms of, last year,  
25 Louisiana, for instance, which is one of the primary states,  
26 particularly in the Gulf of Mexico, for landing sharks, and  
27 those fishermen were not able to go shark fishing, because of  
28 other state laws, primarily from Texas, in terms of not allowing  
29 fins to go through, and so I think some of it has to do with  
30 other regulations and not necessarily regulations that HMS has  
31 control over. It also has to do with just whether or not people  
32 see sharks as being a profitable species to go fishing for.

33

34 **CHAIRMAN STUNZ:** Did you have a follow-up, Leann?

35

36 **MS. BOSARGE:** Yes, and this one might be for you, and I'm not  
37 sure. On the AP that funnels information to HMS for some of  
38 these Gulf of Mexico shark species, what does our commercial  
39 directed fishery representation look like on that AP? I am  
40 wondering what kind of input they are actually getting from us  
41 from our directed commercial fishermen, which I understand are  
42 few and far between at this point, but do we have any  
43 representation from the Gulf directed shark fishermen?

44

45 **MS. BREWSTER-GEISZ:** We do. We have one directed shark  
46 fisherman on our advisory panel, and so our advisory panel -- We  
47 try to have equal representation commercial and recreational,  
48 and then we have some environmentalists, along with some

1 academics.

2  
3 All of the states are allowed to send somebody, along with all  
4 the councils are allowed to send somebody as well, and so, every  
5 meeting, we have somewhere between fifty and sixty people, and  
6 we try to have representation from the different fisheries and  
7 the different regions on the panel, and we do -- We try very  
8 hard to find somebody who is a shark fisherman from the Gulf of  
9 Mexico, but it is getting increasingly difficult.

10  
11 **MS. BOSARGE:** I would think that would get more and more  
12 difficult, simply because, number one, it's a very small number  
13 of individuals, and, as those restrictions have gotten greater  
14 and greater, even just the permit restrictions, and, I mean,  
15 it's under a moratorium, but that's a permit that you actually  
16 have to go to school for, and you have to take a class and  
17 understand how to identify all the different sharks, and, if you  
18 know anything about commercial fishermen, we don't really like  
19 to go to school. That's not -- We're not book people, and we  
20 don't like that environment, and we like to be out on the water  
21 doing our own thing with our hands.

22  
23 What scares me is that, because it is such a small group of  
24 fishermen, we are already seeing, in all of our other commercial  
25 industries, that graying of the fleet, and that there's this  
26 generational gap there, where we're not seeing a lot of those  
27 younger fishermen come up into the fishery, and this is not  
28 something that you go get a college degree and then you can go  
29 out and do it.

30  
31 This is on-the-job training, where you spend years and years and  
32 years on a boat, learning from your father or another fisherman,  
33 or your mother sometimes, and it's few and far between, and so,  
34 as those restrictions have gotten harder and harder, and those  
35 directed fishermen are maybe not out there doing that anymore,  
36 you are losing that transfer of knowledge, and I just --

37  
38 I worry about the restrictions on that fishery, and I hope that  
39 you will try and reach out more to our directed fishery in the  
40 Gulf, since there's only one on your AP, especially when you go  
41 through your assessment process, and I know it's hard to get  
42 fishermen to come to a stock assessment meeting, and I can't  
43 blame them.

44  
45 Sometimes it's rough, but I think their input is very important,  
46 and we have actually used some electronic means of reaching out  
47 to our fishermen before a stock assessment here in the Gulf,  
48 through the SEDAR process, to get their input by either calling

1 them or sending them a survey via email. I hope that maybe you  
2 will look into some of that and really try and engage those men  
3 on the water that have that knowledge that would be very useful  
4 to you.

5

6 **CHAIRMAN STUNZ:** Kevin.

7

8 **MR. KEVIN ANSON:** Along that, I guess, Dave, these are species  
9 that we don't typically deal with at the state level, but I'm  
10 just wondering, because of the interest from the fishing  
11 community, if there is any way of trying to incorporate at least  
12 a presentation with some of the expectations and the data needs  
13 that HMS folks have that could be incorporated with various  
14 states, and maybe it could be brought up as topic during the  
15 Data Committee, and at least start the conversation.

16

17 Certainly, if the states have an understanding as to maybe what  
18 type of information they're looking for, those types of  
19 questions could be incorporated into the state surveys,  
20 potentially, or at least have the discussion within that group,  
21 to make sure they understand that it's a need, and not just from  
22 the council, but to make sure that's being communicated to the  
23 folks that are on the ground and doing surveys, and maybe there  
24 would be some thoughts in trying to gather some more robust data  
25 through that avenue.

26

27 **MR. DAVE DONALDSON:** Well, and our FIN Committee is meeting in  
28 March, and I can certainly talk to Greg Bray, the coordinator,  
29 to see if we can't get something on the agenda.

30

31 **CHAIRMAN STUNZ:** Go ahead, Kevin.

32

33 **MR. ANSON:** Working with Karyl and other folks to make sure that  
34 you provide some information to that group in advance would be  
35 helpful, too. Thank you.

36

37 **CHAIRMAN STUNZ:** Dr. Mickle.

38

39 **DR. PAUL MICKLE:** Thank you for the presentation. My question  
40 is kind of just maybe for folks in the audience, as well as  
41 myself, is understanding -- I am unfamiliar with the stock  
42 assessments for most species of sharks that have been done.

43

44 With ecosystem-based management getting more and more of a push,  
45 have you all gone down some of those early roads in looking at  
46 some of these species, as far as maybe some simple things to  
47 look at, such as condition?

48

1 We know that the fishermen and the folks keep coming to us and  
2 bringing up more and more depredation encounters and things like  
3 that, and is it from increased effort, or is it a certain  
4 species, and maybe shifting from selective to opportunistic --  
5 Are there condition issues of certain species themselves, where  
6 the food webs may be shifting and altering a behavioral  
7 opportunistic, or a selected opportunistic, and maybe that's why  
8 -- Those are some fairly simple questions that maybe EBFM could  
9 start to have that seed and those first steps, as more and more  
10 stock assessment efforts are maybe going down that road, and  
11 have you all looked at that, or potential avenues of that?  
12 Thank you.

13

14 **MS. BREWSTER-GEISZ:** We haven't looked at that at the stock  
15 assessments themselves, but we are looking at different things  
16 like that within the division, and we certainly will probably be  
17 reaching out to Clay to talk about more of the ideas that you  
18 have raised.

19

20 **CHAIRMAN STUNZ:** Ms. Bosarge.

21

22 **MS. BOSARGE:** I saw some gentlemen in the audience that I don't  
23 normally see, and I thought that I recognized one of them from,  
24 gosh, probably ten years ago, at a class I went to, of all  
25 things, and I thought he was a shark fisherman, the way he's  
26 been listening to what you said, and so, anyway, I said, is  
27 there anything that you want me to ask, and he said, yes, ask  
28 her how many shark fishermen they have left on the west coast of  
29 Florida for some of these species that they're not landing, and  
30 he said it's about three or four, and that's all they have left.

31

32 My point is that he's here, and so it's important to him,  
33 because he's from Florida, obviously, or he fishes over there,  
34 and he came all the way to Louisiana to hear you talk, and so I  
35 would encourage you to -- He's here, and you're here, and I hope  
36 that you all will talk and trade information, and hopefully you  
37 can -- If he's willing to participate, hopefully you can involve  
38 him some, if just on the telephone. Thank you.

39

40 **MS. BREWSTER-GEISZ:** Definitely, and so I'm not sure who is in  
41 the audience for that, but I will be sure to reach out.

42

43 **CHAIRMAN STUNZ:** Thank you, Leann. Is there any other questions  
44 regarding the shark presentation? Seeing none, Karyl, thank you  
45 very much, and I know you're very busy with your branch and all  
46 the other activities that you're working on, and so we  
47 appreciate you taking the time to come down here to talk to us  
48 about this sort of developing issue we've got going on.

1 **MS. BREWSTER-GEISZ:** Thank you, all. It's been a pleasure.  
2

3 **CHAIRMAN STUNZ:** All right. Moving on into the rest of the  
4 agenda, it brings us a little bit to Other Business, but, just  
5 really quickly, to step back to that ICCAT AP meeting, I know  
6 Martha was there, and I'm sorry, Martha, and I didn't recognize  
7 you or give you an opportunity, if there was anything I missed  
8 or anything you would like to add to that.  
9

10 **MS. MARTHA GUYAS:** No, I think you did a great summarizing it.  
11

12 **CHAIRMAN STUNZ:** Thank you. Bob, I did look in the last report  
13 regarding blackfin, just briefly, and there wasn't, but I will  
14 follow-up with what the status and plans for that are regarding  
15 blackfin.  
16

17 **DR. SHIPP:** Sorry. I didn't hear what you said.  
18

19 **CHAIRMAN STUNZ:** I reviewed the last report briefly for  
20 blackfin, if there was anything that has come up recently from  
21 that, and there has not, but I will follow-up with more detail  
22 at Full Council. Moving on, that brings us to Other Business.  
23 Is there any other business that needs to come before this  
24 committee? Seeing none, that concludes the business for this  
25 committee.  
26

27 (Whereupon, the meeting adjourned on January 29, 2020.)  
28

29 - - -  
30