

**PROCEEDINGS OF THE
ATLANTIC STATES MARINE FISHERIES COMMISSION
COASTAL SHARKS MANAGEMENT BOARD**

**Webinar
February 3, 2021**

Approved October 20, 2021

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1. **Approval of Agenda** by consent (Page 1).
2. **Approval of Proceedings of February 2020** by consent (Page 1).
3. **Move to appoint Rick Bellavance to the Coastal Sharks Advisory Panel** (Page 11). Motion by Eric Reid; second by Roy Miller. Motion carried (Page 11).
4. **Motion to adjourn** by consent (Page 12).

ATTENDANCE

Board Members

Dan McKiernan, MA (AA)	Mike Luisi, MD, proxy for B. Anderson (AA)
Raymond Kane, MA (GA)	David Sikorski, MD, proxy for Del. Stein (LA)
Sarah Ferrara, MA, proxy for Rep. Peake (LA)	Lewis Gillingham, VA, proxy for S. Bowman (AA)
Jason McNamee, RI (AA)	Chris Batsavage, NC, proxy for J. Batherson (AA)
David Borden, RI (GA)	Jerry Mannen, NC (GA)
Justin Davis, CT (AA)	Bill Gorham, NC, proxy for Rep. Steinberg (LA)
Rob LaFrance, CT, proxy for B. Hyatt (GA)	Mel Bell, SC, proxy for P. Maier (AA)
Maureen Davidson, NY, proxy for J. Gilmore (AA)	Malcolm Rhodes, SC (GA)
John McMurray, NY, proxy for Sen. Kaminsky (LA)	Chris McDonough, SC, proxy for Sen. Cromer (LA)
Heather Corbett, NJ, proxy for J. Cimino (AA)	Doug Haymans, GA (AA)
Tom Fote, NJ (GA)	Spud Woodward, GA (GA)
Adam Nowalsky, NJ, proxy for Asm. Houghtaling (LA)	Erika Burgess, FL, proxy for J. McCawley (AA)
John Clark, DE, proxy for D. Saveikis (AA)	Rep. Thad Altman, FL (LA)
Roy Miller, DE (GA)	Karyl Brewster-Geisz, NMFS
Craig Pugh, DE, proxy for Rep. Carson (LA)	

(AA = Administrative Appointee; GA = Governor Appointee; LA = Legislative Appointee)

Ex-Officio Members

Angel Willey, Technical Committee Chair

Staff

Bob Beal	Kirby Rootes-Murdy
Toni Kerns	Sarah Murray
Kristen Anstead	Joe Myers
Maya Drzewicki	Marisa Powell
Emilie Franke	Julie Simpson
Sarah Hylton	Caitlin Starks
Tina Berger	Deke Tompkins
Jeff Kipp	Geoff White
Savannah Lewis	

Guests

Karen Abrams, NOAA	Patrick Cassidy
Bill Anderson, MD (AA)	Mike Celestino, NJ DEP
Pat Augustine, Coram, NY	Joe Cimino, NJ (AA)
David Behringer, NCDENR	Richard Cody, NOAA
Rick Bellavance, N. Kingston, RI	Allison Colden, CBF
Alan Bianchi, NC DENR	Jessica Daher, NJ DEP
Rob Rourdon, MD DNR	Bob Danielson
Jeff Brust, NJ DEP	John DePersenaire, RFA
Sam Calagione, Brown Univ.	Renee DiPippo

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Guests (continued)

Chris Dollar, CBF	Conor McManus, RI DEM
Ray Draper, King George, VA	Pat Moran, MA Env. Police
Guy DuBeck, NOAA	Jerry Morgan, Madison, CT
Ben Duffin, NOAA	Clinton Morgeson, VA DWR
Julie Evans	Allison Murphy, NOAA
Lynn Fegley, MD DNR	Kennedy Neill
Cynthia Ferrio, NOAA	Derek Orner, NOAA
James Fletcher, Wanchese Fish Co	Cheri Patterson, NH (AA)
Kristin Foss, FL FWC	Kelly Place, Williamsburg, VA
Alexa Galvan, VMRC	Nick Popoff, FL FWS
Pat Geer, VMRC	Jill Ramsey, VMRC
Jim Gilmore, NY (AA)	Adam Rettig, NOAA
Angela Giuliano, MD DNR	Mark Sampson, Ocean City, MD
Kurt Gottschall, CT DMF	Sara Saunders, UFL
Jon Hare, NOAA	CJ Schlick, NC DENR
Hannah Hart, FL FWS	Mike Schmidtke, SAFMC
Jay Hermsen, NOAA	Tara Scott, NOAA
Greg Hinks, NJ DEP	Chris Scott, NYS DEC
Carol Hoffman, NYS DEC	Andrew Sinchuk, NYS DEC
Asm. Eric Houghtaling, NJ (LA)	Thomas Sminkey, NOAA
Rachel Howland, NC DENR	Michael Thompson, NC DENR
Bill Hyatt, CT (GA)	Beth Versak, MD DNR
Dylan James	Craig Weedon, MD DNR
John James	Ritchie White, NH (GA)
Adam Kenyon, VMRC	Kerry Whittaker, MMA
Britt Kostraba	Meredith Whitten, NC DENR
Chip Lynch, NOAA	Charles Witek, W. Babylon, NY
John Maniscalco, NYS DEC	Chris Wright, NOAA
Cami McCandless, NOAA	Sarah York, NOAA
Genine McClair, MD DNR	Rene Zobel, NH F & G
Kim McKown, NYS DEC	

The Coastal Sharks Management Board of the Atlantic States Marine Fisheries Commission convened via webinar; Wednesday, February 3, 2021 and was called to order at 10:15 a.m. by Chair Chris Batsavage.

CALL TO ORDER

CHAIR CHRIS BATSAVAGE: Welcome everyone to the Coastal Sharks Management Board meeting. My name is Chris Batsavage; I'm the Administrative Proxy from North Carolina. I'll be Chairing the meeting.

APPROVAL OF AGENDA

Start off by the Board Consent for Approval of the Agenda. Are there any changes requested by folks of the Management Board for the agenda?

MS. TONI KERNS: No hands are raised.

CHAIR BATSAVAGE: With that we'll consider the agenda approved.

APPROVAL OF PROCEEDINGS

CHAIR BATSAVAGE: Next is Approval of Proceedings from the February, 2020 Management Board meeting. Are there any changes, deletions, et cetera from Board members for the proceedings?

MS. KERNS: No hands are raised.

CHAIR BATSAVAGE: Then we'll also consider those approved by consent.

PUBLIC COMMENT

CHAIR BATSAVAGE: Next up is Public Comment. This is an opportunity for the public to provide comments regarding coastal sharks, or anything that isn't on the agenda. Do we have any members of the public lined up that would like to comment at this time?

MS. KERNS: No hands are raised at this time.

CHAIR BATSAVAGE: I can move into the agenda items.

REVIEW OF THE NOAA FISHERIES COOPERATIVE SHARK TAGGING PROGRAM

CHAIR BATSAVAGE: The first one is Review of the NOAA Fisheries Cooperative Shark Tagging Program, and Cami McCandless from the Northeast Fisheries Science Center will be giving us a presentation on that, so Cami, it's all yours whenever you're ready to go.

DR. CAMI McCANDLESS: All right, I'm going to see if I'm showing my screen right. Can you guys hear me?

CHAIR BATSAVAGE: Yes.

DR. McCANDLESS: Great, can you see my screen?

CHAIR BATSAVAGE: We do.

DR. McCANDLESS: As mentioned, I'm Cami, the one without the beard in the photo. Before I review the Cooperative Shark Tagging Program, I'm going to give you a little background on the Program I lead, Apex Predators Program, which manages the tagging program, and is located at the NOAA Field Lab in Narragansett, Rhode Island.

Our work focuses on setting the life history of federally managed species, using a variety of platforms, in order to provide management with the information needed to help successfully manage these species. Platforms include opportunistic sampling at recreational sportfishing tournaments, like seen in the first picture here, where you can see Lisa Natanson, just recently retired, dissecting a shortfin mako at the Star Island Shark Tournament out of Montauk, New York.

We obtained samples from commercial incidental catch, and by going out on commercial fishing trips as well. We also conduct fishery independent surveys in the inshore and coastal waters along the Atlantic. The two pictures here are of a juvenile sandbar shark, and an adult sand tiger, that were

tagged and released during our longline survey in Delaware Bay.

Last but not least, our Cooperative Shark Tagging Program. This year, unfortunately, due to the virus, tournaments, other fishery dependent sampling, and our surveys were canceled. But the ocean was still open. Commercial fishers were able to get out there and make a living. Recreational anglers were still able to get out on the water, and often had more time to do so.

Boats continued to participate in our tagging program during the pandemic. Our summer tag distribution to commercial and recreational fishers was up 7 percent from last year, and our recapture reporting rate was up 25 percent from last year, based on online mail reporting. Our tagging program is a collaborative effort between recreational anglers, the commercial fishing industry, and NOAA Fisheries, to learn more about shark life history.

Since launching in 1962, program participants throughout the North Atlantic have tagged more than 300,000 sharks, over 50 species, and there have been more than 18,000 recaptures of these sharks, providing movement data on over 30 species. Much of this data was published recently, in 2019, and a shark tagging Atlas through Marine Fisheries Review.

Our tagging program is the longest running tagging program in the world, and NOAA Fisheries oldest citizen science program. We primarily use two tag types, both low tech, conventional tags that have to be recaptured and reported on how to obtain this metadata. We have Rototag, you can see up here at the top, the fin tag hooked into the first dorsal.

It's the same kind of tag that is used on cattle ears for identification, and we primarily use these tags during our research surveys on small sharks like this spiny dogfish seen here. Those that you noticed in previously slides are

juveniles of larger shark species, like the sandbar shark in the previous slide.

Second tag type is the M-tag, which is seen here. It is named after Frank Mather, who originally designed this tag type for use on bluefin tuna. This tag is primarily used on sharks 3-feet and larger. It has the steel dart tip for penetrating the muscle and locking in place, and it also has a capsule which contains recapture instructions written in five languages; English, Spanish, French, Japanese, and Norwegian. You can see the placement for insertion of the tag at the base of the first dorsal fin here on this blue shark. These are the tags that our participants use in the program. Participation in the program does require following all local, state, and federal regulations in the areas fished.

The original objective of this program was to document the distribution and movements of Atlantic sharks, while promoting conservation, protection, release. However, given the long-term continuous time series, this program has not only been instrumental in shaping what we know about shark migration and distribution.

For instance, our data was the basis for defining essential fish habitat for managed shark species in the Atlantic, and is used to update these designations regularly. But it has also been used to define stock structure, document longevity, and validate age and growth in several species; all information essential for stock assessments and effective management.

Our programs offered over 40 peer reviewed publications using our tagging program data over the years, and there are many more published studies using our tagging data that we did not participate in as co-authors, but we supported the work, and we've conducted countless analyses of our tagging data in the gray literature and in working papers for stock assessments and status updates. Now, we have over 50 years of data.

We're seeing not only a growing knowledge base for many species, but also seeing to the distribution over time for some species. Our most tagged shark

is the blue shark. It accounts for 42 percent of all fish tagged, and has a 7 percent recapture rate. Blues, as many of you know are a common pelagic species in the northeast, and since they honestly don't taste that great, they are often tagged and released when caught.

The longest distance traveled was a blue shark tag off of Long Island right around here, and recaptured way down here about 300 miles northwest of Ascension Island off the African Coast, 4,000 nautical miles away. As you can see from the bottom left here, we have a lot of transboundary movements in the North Atlantic, and over here on the right is pulled from one of Apex's publications in 2008, demonstrating the transboundary movements throughout the North Atlantic.

This analysis provided the evidence needed to assess blue sharks as a unique stock in the north Atlantic Ocean. Mark recapture there for both the blacktip and the bonnethead have provided evidence for separate stocks in the Gulf of Mexico and Atlantic, with over 13,000 blacktip and 5,000 bonnethead sharks tagged. The recapture rates of 4 and 5 percent respectively.

There has been no documenting exchanged between regions for these species. The blacktip shark is now assessed as separate stocks, and the bonnethead will be assessed separately in the future. Mark recapture for the sandbar shark is over 43,000 tags and a 5 percent recapture rate, which clearly shows exchange between the Gulf and Atlantic waters off the east coast of the U.S. This species is assessed as a single stock. Recaptures also provide a direct measure of minimum life span. Sandbar sharks are estimated to live longer than 30 years, based on age and growth studies. The longest time between the tag and recapture of a fish is from our database, and it's plus 28 years. This was a sandbar shark that was tagged as a juvenile along the Virginia eastern shore, and recaptured off of Florida. Timeframes and fish measurements between tag and recapture

events, can be used to validate estimated growth rates as well as age.

Like the blue shark, tiger sharks are not prized for the meat, but they are an impressive species, sometimes retained as trophies. They are not as common as the blues, and they also have pretty specialized teeth that can easily cut the line where the fish could be tagged. But we do have over 11,000 tagged, also with a 7 percent recapture rate, like seen in the blue sharks.

The tiger shark actually provides a good example of how decades of data can provide new information on species movements and distribution, with each decade if not sooner, providing updates for essential fish habitat designations. It was actually over three decades before we had a tiger shark crossing the Mid-Atlantic Ridge in 1995.

Before this time, it was not known that tiger sharks made trans-Atlantic movements. This was a tiger shark tagged as a young of the year off Saint Augustine, Florida, and recaptured two years later off Guinea-Bissau, South Africa, off the African Coast, traveling over 3,600 nautical miles, which is still a distance record today for this species, as far as we know.

One of the benefits of these low-tech tags is the lower cost, giving us the ability to put out more tags. Now with the time I have left, I want to turn to looking at how our data in combination with other data is being used, you know more bang for your buck. It's always good to work together.

For the common thresher shark, which is also retained as catch, due to the high-quality meat. It's important to use multiple resources if they're not often tagged and released. We coauthored a paper that just came out in Fishery Bulletin and you've received, that combines our tagging data with other fishery dependent data, to look at thresher shark, seasonal distributions towards updating essential fish habitat.

This figure shows the combined thresher data from 1964 to 2019, plotted in half degree squares on a

large scale, and overlaid over average sea surface temperature, averaged across 2009 to 2016. The inset in here is the Gulf of Mexico, and here in the summer, because it is so hot in the summer, apparently.

We do have two grid squares with data, even though it is hard to see there. There are two grid squares that contain thresher data from our data sources used for the publication. Additionally, we are looking at our tagging data to vet changes over time, and not just changes to our knowledge base.

Here you're looking at some preliminary figures displaying the percent catch for tiger shark tag and recapture data by decade and latitude, split out by the warmer and colder months. Basically, what you're seeing is that in the colder months here, there is no major shift in the Florida distribution of tagging events across decades. It remains off northern Florida/Georgia area. But for the warmer months the core does shift in the final decade further north, off of North Carolina. This graph shows there is a significant difference between the four means in the last two decades. This slide shows preliminary figures comparing our tag/recapture data to satellite telemetry data. This is where, you know Neil Hammerschlag has done on core areas based on satellite kernel density estimation of shark positions for three-year time periods starting last decade, over the same breakdown of the months into cold and warm periods.

That was done with the tagging data. As seen before during the cold months, the core area remains low on the coast off of Florida, further south than what our tagging distribution data showed, but off the Florida coast. But during the warmer months you can see that there is the core distribution down here.

We see a core area up here off of North Carolina, during the Mid time period, and all the way up off of southern New England during the final time period, although they did all retain

that low report area across the time series. Here, this figure displays the habitat suitability areas model for tiger sharks, based on sea surface temperature data.

This time, the warm months are on the bottom, just to confuse you, not intentional. But you can see across the timeframe for the warmer months the suitable habitat has come further north in recent years, with ocean warming in the region as well. It's likely, as with other species, that temperature is driving some of the changes we are seeing.

But it is important to remember that abundance likely also plays a role. As you can see, back during the eighties, before populations started to decline due to fishing pressure, in the late eighties and early nineties there was a smaller peak in the tagging distribution data in the northern latitudes off southern New England, as was seen in the later years of the telemetry data.

Our Atlantic coastal longline survey also shows an increasing trend in relative abundance, since the implementation of the shark FMP in 1993 across all size classes, but driven by juveniles. This increased abundance, as well as increased suitable habitat, could allow for the species to spread out to avoid too much intraspecific competition for resources.

Another example of this is the decline we have seen in our tagging and survey catch records for smooth dogfish in Delaware Bay during the summer months. At the same time, we're seeing increases in juvenile sandbar shark tagging records in the Bay. We do have a recruitment index from our surveys for juvenile sandbar sharks in the Bay for our assessments, it's highly variable though. Our Atlantic coastal survey here is what's displayed, shows an increasing trend across all size classes, juveniles, matures.

But it is also driven by juveniles here, you can see. Our temperature data from our survey is sporadic, due to equipment failure. But we were able to look at the Delaware Division of Fish and Wildlife Trawl Survey bottom temperature data, to look for trends

to see if warming temperatures are potentially driving smooth dogfish out of the Bay earlier.

We did a correlation analysis using time series of monthly summer trawl survey temperature data, and from our Delaware Bay Longline Survey using two size classes of juvenile sandbar sharks and smooth dogfish, to look for significant relationships. There was only one significant relationship with smooth dogfish, and that was a negative relationship with larger juvenile sandbar sharks. This could mean that there is some predation pressure, but more likely that there is some habitat for fishing, or the sandbars are beating the smooth dogfish to the hooks. During this preliminary analysis, we did not include sand tiger trends in the Bay, which our survey also shows are increasing, and our catch depredation shows, because they leave those distinctive bite marks, and also come up on the fish moving again.

They do eat at least hooked large smooth dogfish, and occasionally small ones in the Bay. Last, but certainly not least, I wanted to touch on post release survivorship, concentrating on two species just mentioned that I'm familiar with from my own work, and are commonly encountered along the coast. Both the sandbar and the sand tiger are prohibited species. The sand tiger primarily due to their reproductive characteristics, but also in part due to past declines and uncertainty, and the sandbar, which is currently rebuilding from an overfished status.

Since both species are showing positive trends, encounter rates are increasing, especially with juveniles, as their increases are the first sign of the recovery process, before they recruit to the inshore population. We do not promote targeting prohibited species, but these species are often encountered, regardless of the target. Safe handling and release practices are needed to ensure fish survival, whether tagging or not.

This study here by Abbey Spargo, her Masters research on sandbar shark post-release

survivorship from Rod and Reel captures. We were directly involved in the study. This was a captive study of juveniles from Delaware Bay, using blood analyses to determine stress and recovery.

The sharks were tagged and acclimated to the tank, and then they were hooked and fought on the line until exhaustion, up to 20 minutes, and blood was analyzed at time intervals, to determine recovery. Physiological recovery was attained within 6 to 10 hours, and long-term survivorship was also noted with conventional tag recaptures for up to a year after release.

I can attest, this is a healthy, hearty species. It's got a firm, muscular body, we've had many recaptures ourselves during our longline and gillnet surveys that were tagged during these surveys, and released in poor condition, but were caught months and years later. We were not directly involved in Jeff Kneebone's research on juvenile sand tiger sharks from PKD Bay in Massachusetts. I believe that's Plymouth Kingston Duxbury Bay. But similar methods were used to Abbey's study, and we did provide conventional tags for his study.

Sharks were fought for three minutes, based on recreational catches in the area, and recovery time was between 12 to 24 hours. Long term survivorship was noted from a conventional tag/recapture two years after the study, and additionally through acoustic monitoring of sharks that were fought and released, but not blood sampled.

Although, gut hooked sharks, which is common for this species, as they swallow their prey whole likely lead to delay mortality for some fish. From our longlining experience and gill netting, this species is certainly better conditioned than the sandbar to be restrained in the water, immobile on gear, or alongside of a boat for longer periods of time, without morbid consequences. It's due to its natural tendency to be able to hover in the water column, pump water over its gills. But unlike the sandbar, the sand tiger's bottom is not firm, and when removed from the water is more prone to injury, especially larger sizes. All this information

reinforces that volunteers within our program must follow the guidelines we provide, for safe release practices that minimize handling.

They need to leave that shark in the water, and remove the hook when possible, preferably using a de-hooker. Circle hooks are best, as they help to prevent gut hooking, although not always, especially in sand tigers. But it does reduce it. They should absolutely not drag the shark on dry sand or on a hot boat deck. They need to treat the shark gently, avoiding gills, don't sit on them or hold the jaws open for pictures.

Prohibited species need to be released immediately, and if permitted to tag, they must do so within the time it would take to release the shark from the gear. I hope everybody would be willing to report suspected and documented violations to me, as we cannot educate our taggers if we are not made aware of the violations for our guidelines, or federal and state regulations.

When we contact our taggers about incidents, most taggers want to do the right thing, and correct their behavior. Repeat offenders will not be issued anymore tags, given a citation. But we need to be told that citations were given. We appreciate the data, which goes to good use, but we don't want it at the expense of a shark's life.

In closing, when this program started it is reasonable to say there was more incorrect information back in the sixties than correct information about many shark species. But I hope this presentation has shown that the Cooperative Shark Tagging Program does make a difference to science management and conservation, and in a bottom-up way that emerges from the participants themselves.

In an e-mail exchange with a charterboat captain participant this summer, I think he put it nicely when he emphasized that this program inspires taggers to improve their conservation

practices, spread the word, and it promotes catch and release, and it adds an element of collaboration, and set regulations for achieving common goals. With that I end, and I'm not sure what the timing is, but if there is time for questions, I would be happy to take them. If not, please e-mail me at cami.mccandless@NOAA.gov thanks.

CHAIR BATSAVAGE: Thank you, Cami, for the very interesting presentation, a lot of good information there. I think we have a few minutes for questions from Board members, or comments on this. If we don't get to you, I definitely encourage you to e-mail Cami with any questions or request for more information. I'll see if there are any questions from Board members at this time.

MS. KERNS: You have three Board members, Mel Bell, John McMurray, and Maureen Davidson.

CHAIR BATSAVAGE: Okay, Mel Bell.

MR. MEL BELL: Thanks Cami, great presentation. Just one comment really quickly. We're big supporters of the program down here in South Carolina, and I do appreciate you emphasizing the handling practices and all of that. One thing to keep in mind, in terms of compliance with state requirements, and I don't know that we're the only state.

But we do have a state law which requires that anyone tagging fish in state waters has to have a permit from us, it's a free permit, but they have to have that state permit. Just having the federal permit, or participating in your program, does not automatically allow them to do that in state waters. To the degree that you can make that clear to folks.

You know you mentioned ensuring that they comply with state law and all. But I don't know that that is unique to us, but it is certainly something that has been in place here for a while. We would appreciate it, because sometimes we get folks that don't know that, and they might find themselves a little crossway with law enforcement. Thanks so much for the program, and all you guys do as well.

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DR. McCANDLESS: Thank you, I appreciate that comment. I am aware that South Carolina, and I believe Florida as well require a tagging permit. We do tell our taggers when we speak to them and in e-mails when they sign up, that they must check state regulations, and anywhere they're tagging locally for them to review the regulations.

We were not as forceful about this until more recent years, so there may be some people that have been tagging for years that are not aware to remember to go back and check. Things have changed. We've been sending out little notices with tags, as we send them out more tags as they request them, to remind them of this, so thank you.

CHAIR BATSAVAGE: Next up is John McMurray.

MS. KERNS: You have Maureen and then John McMurray.

CHAIR BATSAVAGE: Was it John or Maureen? Whoever wants to go first. I thought you said, John, but either way.

MS. MAUREEN DAVIDSON: John.

MR. JOHN G. McMURRAY: Okay, I'm off mute now. The organizer had me on mute, sorry about that. Cami, thank you for that presentation, it was interesting, particularly the part about post release survival. I'm wondering if there are any parameters on who you issue tags to, or any sort of qualifications that that person must have. I'm asking this, because you see on social media somewhat frequently, photos of guys who catch sandbars, sand tigers, and dusky's from the beach.

They drag them up on the beach, they take photos, and then justify it by saying they are putting tags in them. I'll let you speak directly to this, but I'm pretty sure that is not legal in New York, and for good reason, because it is probably quite a bit of discard mortality. I'm

wondering if there is consideration of where they're fishing from, and what their plan is?

DR. McCANDLESS: Anybody is welcome to volunteer. We do not restrict who does volunteer. I do ask, when I have the opportunity, if they are fishing from shore or from the water. We do emphasize that they have to follow guidelines by the state, and they must check those guidelines beforehand.

In some cases, more recently, people when they register, the state they register from does not necessarily mean that sort of fishing. But if I find out that they are fishing in areas where stricter regulations are in place, I do tell them to check with those states before I give them any tags, to see if they can even tag where they want to tag.

But as I said, we don't refuse volunteers. We don't have strict regulations or an official training for them. We do provide them with our guidelines. When people do inform me of things like this, I do call the taggers, if I do have their information. If it's obvious from, if someone sends me to a website or something, I do call them up and talk to them about the issues.

They are nearly always apologetic, and I do see better behavior, but I have to be made aware of these things. Sometimes these things go around and they don't get to me, so I don't know. Then also, we've got to keep in mind with some things that are posted online, a snapshot in time is a picture, and you can't always tell what's going on.

I was alerted to one occasion where I contacted the tagger. They actually sent me a video of the event, and it was actually not a bad interaction. It looks like they were posing with a shark, but they were actually, through the video you could see they just glanced up at the time the picture was taken. The shark was actually in the water surf area.

You've got to keep that in mind when you look at these things online, but we do want to be made aware. Let me know, I don't mind if I get flooded. I want to nip this in the bud the best I can. We deal

with it annually, more so with the increase in shore-based anglers. But we do have some really good responsible taggers in the program, the majority of them are.

MR. McMURRAY: Okay thank you. That is good to know. Just to give you a heads-up though. It is becoming somewhat pathetic, in the fact if folks see it on social media and they think they could do it. But I'll have Maureen speak a little more to that.

CHAIR BATSAVAGE: Maureen, do you have a quick comment based on what John just mentioned? If so that's great, then we're going to have to probably end this. If any other Board members have questions or comments, definitely reach out to Cami. I think a lot of us have these same questions John has brought up. Maureen, to this point.

MS. MAUREEN DAVIDSON: Cami, thank you very much for your presentation. You're collecting really valuable information through the Cooperative Shark Tagging Program. It's so good to see how the information is being used. Yes, speaking from the New York side. We do seem to have some shoreside anglers who are targeting some of the prohibited species of shark, and they don't seem to be handling them responsibly.

Obviously, we've had this really big concern as to how we can sort of control their behavior. I'm very happy to know that you're willing to accept reports from us, if we're able to document people who are mishandling the shark, or if they're sort of showboating that they caught a shark, and they've got to take their picture and put it on Facebook.

Also, New York State is going to think about what other actions we might be able to take to see if we can't sort of, if not control who gets the tag, perhaps to see if we can control their behavior. Our concern is that some anglers are not handling the sharks that they catch from the shore responsibly. But I think we'll be in

touch with you, and we'll let you know what sort of steps New York state will be taking, to sort of help remedy the issue. But thank you very much for your presentation.

DR. McCANDLESS: You're welcome, and thank you. I look forward to working with you.

CHAIR BATSAVAGE: Okay, thank you for that, Maureen and Cami. Let's go ahead and move on to the next agenda item. I know there were a couple members of the public with their hands up. If we have time at the end, maybe we can go to them really quickly. But I do want to make sure that we get done with these next couple of agenda items to stay on schedule. I appreciate everyone's understanding of that.

UPDATE FROM NOAA FISHERIES ON HIGHLY MIGRATORY SPECIES MANAGEMENT

CHAIR BATSAVAGE: Next up will be an update from NOAA Fisheries on Highly Migratory Species Management, and Karyl Brewster-Geisz will be giving us that presentation, so Karyl, whenever you're ready.

MS. KARYL BREWSTER-GEISZ: Hello, this is Karyl. I will try to keep this short. I don't have as many slides or as many pretty pictures as Cami, so I apologize for that. It has been a long time since we've given the Board an update about what we've been doing, so that is what I'm here today to do.

I'm going to start with Draft Amendment 14. This is an amendment that we released for public comment in September of last year. The comment period closed December 31, so we are currently reviewing all the comments we received. In short, what we're trying to do with Amendment 14 is reestablish a new framework for setting up shark quotas.

Then this new framework would be consistent with the revised National Standard 1 Guidelines that the Agency released a few years ago. In doing this new framework, we're also trying to increase our management flexibility, so we can react to any

changes, both in the fishery itself and in the underlying science.

There are two things I want to make sure to point out. Amendment 14 does not change anything, in regard to the Annual Catch Limit or ACL for prohibited shark species. That remains 0. As long as the species is prohibited, that ACL will be 0. The other thing Amendment 14 does not do, is it does not change the quotas automatically.

Once we establish a framework Amendment 14, we will follow up with a future rule, to then go through and change all the quotas, based on what is finalized in Amendment 14. As I mentioned before, we did go out with the proposed Draft Amendment last year, and this is just a quick slide showing what our preferred options were. There is a lot more detail within Draft 14, and given the time I'm not going to go through a lot of the detail here. But I am going to point out some of the major changes. One of those is Topic C, the annual catch limit development options. Under Option C2, we would change to actively managing both the commercial and the recreational sectors. This is a change.

Currently right now we only actively manage the commercial sector, so we would start actively managing the recreational sector as well. The other big topic here is Option C5, where we are proposing to remove quota linkages in the commercial fishery. If you remember, in the Atlantic the large Coastal Sharks and the Hammerhead Management Groups are linked, so if one quota is met, both management groups are shut down together.

Under Option C5, which is our preferred option, if hammerhead shark quota was reached, large coastal would remain open, and vice versa. One of the other major things that I see would be Option E3. Currently we rely on the stock assessments to help us determine the overfishing status. If the stock assessment says the stock is overfished, or overfishing is

occurring, we keep that overfishing status until the next stock assessment, which could be 10, 15 years in the making.

Under Option E3, we would use a three-year average of fishing mortality, and change that overfishing status if we are under the overfishing limit. We would no longer wait for a stock assessment; we would use the data we have available. There is a lot more, obviously that we're working on in Draft Amendment 14, so I'm happy to answer any questions after the fact.

This is a pretty picture of basically all we're doing in Draft Amendment 14 and the overarching framework. We would have the overfishing limit, we would establish an ABC Control Rule, which is under the preferred alternative. We're looking at a tiered approach. Using management uncertainty, we would reduce the acceptable biological catch to create the annual catch limit.

We would split that up between the commercial and the recreational sector. From the commercial sector we would remove any commercial dead discards that we are estimating, in order to derive commercial quota. It is a change from our current framework. Of course, any good management relies on our stock assessments.

This past year we had three stock assessments that we are still reviewing, so none of this is final yet. The Atlantic blacktip shark was the first assessment since 2006. Preliminary results show the stock is healthy. Porbeagle shark was assessed through ICCAT. Preliminary results are that it remains overfished, but overfishing is not occurring. Then lemon shark was a student paper that was published in a peer reviewed journal.

We're reviewing whether or not we can use those results, and that indicates lemon shark is also healthy. We're working on finalizing Amendment 14. This includes reviewing all the comments we received, along with working with the Southeast Fisheries Science Center on finalizing what that tiered ABC Control Rule would look like.

We're hoping to release final Amendment 14 later this year. As I mentioned before, once that is final, we will be doing a follow-on rulemaking that would implement that framework across all of our shark species and management groups. It would include all the recent stock assessments, so those that I just mentioned, along with say the sandbar shark assessment, which was finalized a few years ago but not yet, it didn't result yet in any changes, because we've been waiting on Amendment 14. Lastly, really quick, we have been working on a comprehensive review of the entire shark fishery.

Looking at the commercial fishery, looking at the recreational fishery, looking at bycatch across, and other fisheries that interact with sharks, and trying to figure out what is the next step we should be taking, in terms of the shark fishery? As you all know, we have not been landing the commercial quota in years, so why is that, and what can we do to actually improve that situation?

We're also looking at depredation, so shark depredation which is sharks eating other target species, has been an increasing hot topic. We regularly receive e-mails or phone calls from a number of constituents throughout the region, including the South Atlantic Council and the Gulf of Mexico Fishery Management Council, about their concerns for increasing shark depredation. It seems to happen in all fisheries, Gulf of Mexico and the Atlantic up and down the coast, and is impacting a lot of other fisheries, such as snapper grouper, for example.

There is limited research on the scope and extent of this issue, so we have identified it as a management-based research priority in our management research needs and priority document, and we are looking to see what we can do about it in our comprehensive Shark Fishery Review or SHARE. That is all I have to share with you, at least today. I'm happy to take any questions if there is time, otherwise feel free to send me an e-mail or give me a call.

CHAIR BATSAVAGE: Thanks, Karyl, we appreciate the update. I guess we have time for maybe one question from the Board if they have one. If not, I definitely encourage you to contact Karyl. I suspect we'll be hearing more about these activities and updates as they develop. Toni, are there any Board member with a question?

MS. KERNS: Chris, there are no Board members, no sorry about that, Lewis Gillingham just raised his hand.

CHAIR BATSAVAGE: Okay Lewis, go ahead.

MR. LEWIS GILLINGHAM: Thanks, Chris. Karyl, I always enjoy your presentations. To distill it down, what is the logic behind eliminating the linkages for the commercial quotas? I think it seems to work well. I think we've got other issues with marketing that has made the commercial quota unlikely to get caught, but thank you.

MS. BREWSTER-GEISZ: I think the primary reason for removing it is our stock assessments are getting more and more species specific. There comes a point when we have several stock assessments, and do you start opening and closing and linking a whole bunch of stocks as you are removing them from being in management groups?

We are trying to keep it simpler, if you would, and as we have a new stock assessment, move toward more species-specific management, which means the linkages could get really complicated. Instead, we will be looking at the stock assessment and pulling out any commercial discards that we are estimating could happen in that fishery. It could result in smaller commercial quotas, in order to account for any of those commercial discards that might happen, if other species remain open.

REVIEW AND POPULATE ADVISORY PANEL MEMBERSHIP

CHAIR BATSAVAGE: Thanks, Karyl for that, and thank you for the question, Lewis. Just in the interest of time, we'll move on to the next agenda item, and that is to Review and Populate Advisory

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Panel Membership. For that I'll turn it over to Tina Berger, and Tina, whenever you're ready.

MS. KERNS: Chris, I don't know if Tina had to step away. I just got an e-mail. Kirby, do you have that list that you could just go to?

MR. ROOTES-MURDY: I can pull up, or we can post if need be the memo from the meeting materials, if that's helpful.

MS. KERNS: Yes.

MR. ROOTES-MURDY: Just give me a second and we'll get there.

MS. KERNS: I have it, Kirby.

MR. ROOTES-MURDY: Okay, if you want to pull it up.

MS. KERNS: Yes, we have Rick Bellavance was nominated to the Coastal Sharks Advisory Panel. Rick is a commercial rod and reel fisherman, a charter and party boat captain, and he would be from the state of Rhode Island, and he is being nominated to this AP.

CHAIR BATSAVAGE: Thank you, Toni, any questions or would any Board member like to make a motion?

MS. KERNS: You have Eric Reid.

CHAIR BATSAVAGE: Eric.

MR. ERIC REID: I would move to appoint Rick Bellavance to the Coastal Shark AP.

CHAIR BATSAVAGE: Thanks, Eric, do we have a second?

MS. KERNS: You have Roy Miller.

CHAIR BATSAVAGE: Okay, thank you, Roy. Any discussion on the motion? The motion is to move to appoint Rick Bellavance to the Coastal

Sharks Advisory Panel. Is there any opposition to the motion?

MS. KERNS: I see no hands up in opposition.

CHAIR BATSAVAGE: Great! Then it's approved by unanimous consent. Thank you, and congratulations, Rick. Next, last on the agenda is there any other business that Board members have for coastal sharks?

MS. KERNS: I don't see any Board members with their hands up. You still do have that one member of the public.

CHAIR BATSAVAGE: Okay, and Toni, this is a time check. I know we're a little bit over. Do we have time for a quick comment from the public?

MS. KERNS: I think if Julie can limit her comment to one minute that would be great, just so folks can have a quick biological break between meetings.

CHAIR BATSAVAGE: Good, great, so Julie, please feel free to provide your comments or questions to the Board, thanks.

CAPTAIN JULIE EVANS: Thank you, Mr. Chair, for allowing me to speak. I just want to say that, as a person who has been in the commercial and charterboat industry here in Montauk, we do so appreciate the shark research that Cami has done here. It's a very important economic driver to our little coastal, crazy town.

The research that has gone into it and the participants have always enjoyed getting their information back when they tagged shark on the daybreak back in the day. I just want to reinforce that not only is it a great research tool, and we so appreciate it, but it's also very much a part of our economy here. Thank you.

CHAIR BATSAVAGE: Thank you, Julie, appreciate those comments.

ADJOURNMENT

CHAIR BATSAVAGE: I think unless there is any opposition to it, I think we can go ahead and adjourn the meeting. With that we're adjourned, thank you, everyone.

(Whereupon the meeting convened at 11:05 a.m. on Wednesday February 3, 2021.)