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## Standing Committee on Fisheries and Oceans

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EVIDENCE

## Monday, February 25, 2019

## Chair

Mr. Ken McDonald

# Standing Committee on Fisheries and Oceans 

Monday, February 25, 2019

- (1530)
[English]
The Chair (Mr. Ken McDonald (Avalon, Lib.)): Good afternoon, everyone.

Pursuant to Standing Order 108(2), we are studying the impact of the rapid increase of the striped bass in the Miramichi River and the Gulf of St. Lawrence.

We have some new members on the committee today. Well, they're not new, I suppose, but a little bit recycled to some degree. Back again on the Conservative side we have Robert Sopuck, who is no stranger to the committee, and Mr. Shipley, who has been here before as well. Welcome, gentlemen.

On the government side, we have Nathaniel Erskine-Smith joining us, I think, for the first time. I understand that he's a specialist on the striped bass issue, so we'll probably be turning to him for some insight later during the meeting.

I will remind everyone that we'll hear the witnesses on the striped bass issue for the first hour. The second hour will be in camera for committee business.

We have with us today, in person, Mr. Jeff Wilson, co-host and founder of the Miramichi Striper Cup. Welcome, sir. By video conference, we have Martin Mallet, executive director of the Maritime Fishermen's Union. Welcome, sir.

We'll start with your presentations first.
Mr. Mallet, we'll go to you first, seeing as you're by video conference, in case there's any trouble. You have seven minutes or less, sir.

## [Translation]

Mr. Martin Mallet (Executive Director, Maritime Fishermen's Union): Can I give my presentation in French?

The Chair: Yes.
Mr. Martin Mallet: Okay.
[English]
Do you hear me now?
The Chair: Go ahead when you're ready, sir.
Mr. Martin Mallet: It's probably going to be less than seven minutes.

## [Translation]

Thank you for inviting me to testify once more before the Standing Committee on Fisheries and Oceans. I was happy to accept. I would have liked to be there in person, but the weather and snow in the Moncton area prevented it.

As the Chair mentioned, I am the executive director of the Maritime Fishermen's Union, which has existed for over 40 years. We represent about 1,300 inshore fishermen from New Brunswick and Nova Scotia, who fish many species, the main ones being lobster, herring, alewife and rainbow smelt. During my presentation, I will come back to the concerns that we have about striped bass.

It is clear that the striped bass population and spawning stockthe subject of your study-have seen a radical increase over the last 10 years. We have observed it in person, and our fishers have shared with us their concerns about this increase since it started in 2012 or 2013.

Recent Fisheries and Oceans Canada studies show that striped bass is not a significant predator of lobster, the main species that we fish. Nonetheless, our association is asking that the studies continue in order to reassure us that striped bass will not eventually become a problem for the resource that we harvest.

However, our alewife and rainbow smelt fishermen, mostly in the Miramichi area, where we have about 50 fishing licenses, according to the calculations I did today, tell us that striped bass is eating alewife as well as filling nets. It is becoming a problem for that fishery, because the nets are full of striped bass.

Nevertheless, if we rely on the most recent stock assessments done by the department, which go back just a few weeks or a few months, we are told that the spawning bass biomass has been declining significantly for two years, going from a population of almost one million fish to about 300,000 . For our association and for me personally, this leads us to realize that the growth of this species was temporary, and that scientific studies must continue on the subject to try and understand what is going on.

To come back to lobster fishing, our inshore fisherman might be interested in being able to fish striped bass as a secondary or accessory catch, in order to use it as bait or to sell it commercially. However, recent stock assessments of the species lead to the conclusion that it would not be reasonable to pursue the idea, at least not in the short term, next year, for example.

Why has the striped bass population seen such a decline recently? One possible answer would be the difficult winters that we have experienced since 2017. Again this year, it will be interesting to see the impact of the current winter on the species' population. It started very early, and ice started to form in Miramichi Bay in November, which is earlier than over the last 10 years. The early formation and increased thickness of the ice cover could have contributed to the decline in the striped bass spawning stock over the last two or three years.

Essentially, the message is to ask the department to continue its research on the species to better understand it. It presents a commercial opportunity for our fishers, but the most recent decline in its population does not allow us to recommend commercial fishing of striped bass at the moment.

- (1535)

That brings me to the end of my presentation. I would be happy to answer your questions in English or in French.

## [English]

The Chair: Thank you, Mr. Mallet.
We'll go now to Mr. Wilson for seven minutes or less, please.
Mr. Jeff Wilson (Co-host and Founder, Miramichi Striper Cup): Thank you, first of all.

Just as a little background, I've been a 30 -year competitive bass angler and an avid promoter and organizer of bass events in the Maritimes, promoting the benefits of such in the recreational fishery and what they bring to the region.

I also sit as a member of the eastern advisory committee for DFO. I've spent a fair amount of time studying the science and watching the return of the natural striped bass population.

It's important to add context to this study. This fish is not an invasive species of any nature. There is historical evidence of a commercial fishery harvest of 10 tonnes to 47 tonnes per year of striped bass, so there's a lot of misinformation in the media and other organizations about that.

The first thing for me was to bring the recreational opportunity, which is far larger an economic boom to the province of New Brunswick than any commercial fishery ever will be. This population is the most northern population and is susceptible to huge natural fluctuations like those we saw last year. This happened in 1996 as well, and it happened in the forties and also in 1913. We just saw the exact same thing happen in New Jersey last year where two-thirds of the population disappeared. It's really a capacity issue relative to the alewife, smelt and those sorts of things as food sources to all fish in the river system and in the ocean.

From my point of view and that of the Striper Cup, I'm going to provide a lot of information. The economic impact in six days in one spring is about $\$ 3.8$ million recreationally. We'd certainly like to see a commissioned economic study on the gulf fishery-the complete gulf fishery from Labrador and Quebec all the way to P.E.I. and Cape Breton. We've seen a huge increase, an explosion in recreational fisheries for families and kids. In the Striper Cup alone, we have 350 kids. We have a family division. This has created a
huge boon for the population, not for commercial but for recreational.

I had brought my worry to the eastern advisory board last year, saying that we would see a decrease in the population, and similar to 1995, in one year we lost over two-thirds of the population, the same as we did last year. If we lose two-thirds this year, then we're again down to an endangered species level. The key here is to maintain a school level at a level of about 300,000 to 350,000 , so it can absorb a natural phenomenon, and then also have some recreational return as well to the population.

Recognizing the indigenous rights to first access, we suggested that they reduce that to drive the price and margin up-limited effort and a higher volume of return on investment. The sustainability or the scaling up of a commercial fishery to the numbers would make it viable. This population will never sustain that over a long period of time. Like any good marketing person, you increase the demand and increase the price by limiting the access to the actual product. That will give you sustainability over time.

We have a lot of groups, including the striped bass research team at Acadia University, which has worked with us and the University of New Brunswick. I've provided on my USB stick a number of diet studies that actually prove that the species is not having an impact on the salmon any more than it has before and that it's less than $2 \%$. We have a lot of other factors that have to be taken into consideration, including the fact that a lot of biologists will always say that you never manage one over another.

I'm here. I've given some points of interest for the members. I'm happy to take questions. I tried to keep my comments under seven minutes, but I'm available any time.

If I can, Mr. Chair, at any time, I certainly want to get a picture of our Striper Cup jersey here with all the members. We have about 42,000 followers online, and I'm sure everybody would enjoy seeing a nice picture of the members all looking after our fishery here in Ottawa.

- (1540)

The Chair: Thank you, Mr. Wilson.
For the questioning, we'll first go to the government side for seven minutes or less.

Mr. Finnigan, please.
Mr. Pat Finnigan (Miramichi-Grand Lake, Lib.): Thank you, Mr. Chair.

I'd certainly like to welcome today both Mr. Wilson, whom I know very well, and Monsieur Mallet.

## [Translation]

Welcome to all of you.

## [English]

I also want to thank the members of the committee for allowing me to bring this study forward. It affects my area more, and the gulf, but I think it's a study that certainly can be related to other regions. We're looking at the predators and at how we manage them. I brought forward this study because there's been a lot of concern from the Miramichi area, from stakeholders who have expressed to me concern about the rapid increase of striped bass and the consequence for predominantly the Atlantic salmon population-although it does, as Mr. Mallet mentioned, affect other species.

On the other hand, as Mr. Wilson said, it was an exciting weekend when we had the Striper Cup. I was on the leading vessel when we gave the go-ahead. It was an awesome spectacle, with a couple of hundred boats ready to go and get the biggest striped bass on the river.

Mr. Wilson, you talked in your opening statement about the tournament. It started in 2014 or 2015, I guess, or somewhere around then.

## Mr. Jeff Wilson: Yes.

Mr. Pat Finnigan: At the time, the population was estimated to be roughly 300,000 .

Mr. Jeff Wilson: Yes, it was about 300,000 at the time. I had been fishing on the river for about five years at that point, and I couldn't believe I was the only one on the river enjoying this. I felt it was an opportunity to bring a lot of attention and economic impact to the city of Miramichi. We now average 150 to 200 boats a day in May. It's driving hotel and restaurant and boat sales.

On my USB I have provided one narrative of the economic impact. It shows that we brought in about $\$ 3.8$ million just during the Striper Cup. The cup itself was there to promote the fishery, which has now taken off for the whole month of May, during a shoulder month of tourism for us.

## $\bullet$ (1545)

Mr. Pat Finnigan: When you think about the interest in coming to Miramichi to participate in the Striper Cup, what do you think would be the lowest threshold?

Mr. Jeff Wilson: Well, I'm concerned that we might have met it quickly, around the 300,000 -fish level. You have to remember that we're talking about a spawning fish. We've done a great job, and I commend DFO for its plan and effort to bring this fish back. A slot limit protects your big breeders. That protects them against predation and of course also poaching, which has become very prevalent now that we've marketized this product. If you get that slot limit, that protects the fishery. That's the bulk of the young of the year, and the big females are there.

I brought Fish'n Canada down to do a show. It became their number one show of all time for a visual. I brought Fins \& Skins down. We had Wayne Gretzky down; again, just outstanding. This fishery has taken New Brunswick to the level of sport fishing that I've been involved with-Mercury, Bass Pro, all these people-for many, many years. I dropped in yesterday to the Ottawa Boat Show and was handing out Striper Cup stickers. Not one fishing person
there had not heard of the Striper Cup and Miramichi and the fantastic fishing available.

Mr. Pat Finnigan: Thank you, Mr. Wilson.

## [Translation]

Mr. Mallet, welcome.
As you said in your speech, the presence of striped bass has not really had consequences on commercial catches, in other words lobster or the other species that we know. In the case of lobster, I think that there have been more catches over the last few years.

In the history of the Union, do you remember having seen population explosions followed by an immediate decline, as Mr. Wilson has described? Is what we are observing right now normal?

Mr. Martin Mallet: Yes, it corresponds exactly with Mr. Wilson's description.

I will now put on my biologist's hat. I am a biologist by training, actually. I studied lobster for several years before taking the position of executive director at the MFU. Striped bass is at the northern edge of its range. If there are good hot years through the spring, summer and fall, the species really benefits from the water temperature. This is what we have observed over the last 10 years. Nevertheless, we have experienced impressive ice cover for the last few winters. We are all going to remember the story of the whales, and the problems that we had to face last spring during the ice breakup in the bays. It was really difficult. With the ice, we expect the same type of spring in 2019.

A long time ago, there was a commercial fishery for striped bass, but we are currently studying the repercussions that its presence could have on lobster. Striped bass is an opportunistic species which, if it has the chance, eats just about anything. Lobster is not what it prefers to eat. Over the last 10 years, we have seen no signs indicating a decline in terms of recruitment. As for undersized lobster, there is no sign of a slowdown. In fact, we are currently seeing another increase.

## [English]

Mr. Pat Finnigan: We have a lot of outfitters on the river, a lot of people who are saying this is destroying salmon. It's being seen in salmon pools way up the river, way above the tidewater, which we've never seen before.

What's the equilibrium, in your mind? Where do the numbers stand and how do we manage it?

## Mr. Jeff Wilson: I think you're probably there.

We did a bycatch study last year with the outfitters on both the Miramichi and Restigouche rivers. They were allowed to keep any striped bass caught above the tidewater. There were 16 caught in the Restigouche and 13 caught in the Miramichi. The stomach studies of those fish indicated there was less than $2 \%$ salmon parr in there; $90 \%$ were empty. Most were crustaceans. Those dive studies are available. I have put it on my USB for the members to consider.

That's a capacity issue. That is the small, young-of-the-year fish that they're seeing up there. It's not the big spawning fish that will come into the river for two or three weeks and then immediately leave the river. There is $90 \%$ of the parr that come down the Southwest Miramichi, and $90 \%$ of the striped bass that go up the Northwest Miramichi.

Mother Nature does a great job at managing this, but during heavy rains and high flows in the spring we are seeing that affecting the striped bass' ability.... As Mr. Mallet said, the water temperatures have to be perfect for that fish, and they take advantage of that.

We have to be careful that we manage this. I would not want to see the stock go below 300,000 . We need that buffer. If we don't have that buffer, then we get back to endangered species again and we've lost the economic benefit that we enjoy today.
$\bullet(1550)$
Mr. Pat Finnigan: Thank you, Mr. Chair.
The Chair: Now we'll go to the Conservative side.
Mr. Sopuck, for seven minutes or less, please.
Mr. Robert Sopuck (Dauphin-Swan River-Neepawa, CPC): Mr. Wilson, I want to commend you for your advocacy for recreational fishing in general. It's something that I think DFO always has on the back burner. I think the recreational angler in Canada should be demanding more effort from DFO-not asking for it, but demanding that more of its resources be spent on the recreational fishery.

Having said that, I kind of dispute your 2\% figure here. I want to quote from the Atlantic Salmon Federation and DFO's study in 2018 -just last year-in the Canadian Journal of Fisheries and Aquatic Sciences. It showed that up to $18 \%$ of smolt leaving the Northwest Miramichi were eaten by striped bass in some years.

I know this study fairly well. It was a peer-reviewed and welldone study. I don't dispute your 2\% number, but having talked about a stomach analysis of angler catch versus a detailed study like these folks did, I think it is kind of important.

In my view, Atlantic salmon conservation is probably one of the most difficult conservation challenges in the world. It's not a wonder that we have so few; it's a wonder that we have so many, given the challenges that the Atlantic salmon face.

You spoke about the value of the sport fishery. You said it was $\$ 3.8$ million in the Striper Cup fishery. Well, the Gardner Pinfold study that ASF did was $\$ 135$ million for the Atlantic salmon.

I have a bit of a different point of view than you do of human management of resources. I think that humans have the right to ask for a certain mix of fishery and then manage towards that. That's a bit of a soliloquy there.

How do we keep the striped bass at the numbers you want350,000 - given the natural fluctuations of both the food supply and temperature that you so eloquently described?

Mr. Jeff Wilson: I'll address three points.
The first point is the diet study. The Atlantic Salmon Federation did one. It's at $2 \%$ to $18 \%$ on 100 smolt released in the Northwest

Miramichi. The DFO study was of 1,800 fish randomly selected through handling, with the actual stomach-content DNA analyzed, versus predatory analysis, in which the tagged fish looked like it was a striped bass when it got tagged. I'll just address that.

Second of all, when you talk about the economic benefits, the study of the Atlantic salmon was conducted a number of years ago. That's why I've asked for what I believe would be a prudent approach-to take a proper look at the recreational fishery of striped bass across the whole gulf so that we get the proper value of that fishery and can consider both species equally. Please don't get me wrong, I was an avid salmon fisherman for 30 years.

When we go into the salmon fishery, we do have an extremely difficult challenge, given that for 57 days last year, the temperature of the Miramichi was actually acute for salmon; if a salmon swam 100 yards, it would die. We had 61 days of that the year before. Over the last five years, the mean water temperature in the river was up to that level more than 40 days a year. We really have a water temperature issue for the salmon, which is another challenge for you folks to ponder. Also, in the spring, we have high flow in a very short period of time, and then an acute start to the summer. We've lost our spring. That has a tremendous effect on the fish.

There is no correlation between diet and the return of a large salmon population. Having bought out the Greenland commercial fishery, we'll certainly see some return to that, I think. When you look at the rivers in Labrador and Newfoundland and see the same decline of salmon there without any striped bass predation, it is a concern. It is a challenge, as you've mentioned. Atlantic salmon is one of the flagships of New Brunswick. I was fortunate to have a chance to fish that when it was in its prime.

- (1555)

Mr. Robert Sopuck: Could you talk about what your recommendations would be to keep the striped bass at 300,000 ? How would you achieve that?

Mr. Jeff Wilson: That's why I think the indigenous commercial fishery needs to be controlled for fewer fish, less effort and higher margin, to make sure they get their right. I would reduce the recreational retention to one a day.

We were doing it very slowly, and then all of a sudden last year, we just let the gates open, because DFO's plan was to triple retention. I believe the retention was too high and may have been too of an adjustment.

Mr. Robert Sopuck: I had the honour of fishing that fishery last May. I was there for about three days. It truly is remarkable. I forget their first names, but the Curtis family were talking about the incredible smelt runs that used to be on the Miramichi. They don't see them anymore. That's an epic failure of an ecosystem, isn't it?

Mr. Jeff Wilson: Yes, it is. You're absolutely correct. The way the salmon parr work is that when they are coming down the river, the smelt and the alewives are the smokescreens that Mother Nature put in place.

Mr. Robert Sopuck: Yes. When you describe the cycles of the striped bass, do you think it was food supply that did it? When I saw the predation of the smelt with my own eyes-the phenomenal number of smelt they must eat-plus the Curtis family's observations of no smelt, I thought we're probably looking at another crash of the striped bass, no matter what we do.

Mr. Jeff Wilson: I think we have to be very mindful of that. History and the data have shown that this can happen. As Mr. Mallet said, the bass come into the river to winter under the ice. They can actually freeze in the salt water when they swim, so any fish will colonize. That's what we really have to think about. They have not yet colonized the Richibucto, the Bouctouche or the Kouchibouguac -the rivers of those areas.

Mr. Robert Sopuck: I want to make one last point.
You exemplify, Mr. Wilson, the incredible knowledge of the recreational fisherman in Canada. You represent a true environmentalist, in my view, and more is the pity that we don't listen to the hunting and angling community as much as we should, given the example you just gave at this committee of your incredible knowledge of the Miramichi.

Thank you for your testimony.
Mr. Jeff Wilson: Thank you, sir.
The Chair: Thank you, Mr. Sopuck. You were almost dead on with your time. You haven't lost your touch.

Now we go to the NDP. Mr. Donnelly, you may speak for seven minutes or less.

Mr. Fin Donnelly (Port Moody-Coquitlam, NDP): Thank you, Mr. Chair, and thank you to both of our witnesses for being here.

Mr. Wilson, I wanted to continue with the line of questions Mr. Sopuck started. Regarding the diet studies you referenced, can you remind the committee, was it the university, DFO or-who did those studies?

Mr. Jeff Wilson: The original diet study was done by DFO over about a four to five-year period. This is all by memory. I was actually on the river when they came over to me, because I was catching fish and they weren't, and they asked me to randomly sample 40 quickly caught fish. So, that was actually a catch, kill and dissect the stomach.

In the Striper Cup, I have Acadia University there and two Ph.D.'s in striper research, Dr. Avery and Dr. Easy. Any of the fish that die... We have a live release tournament. Everything we catch, we let go. We had a 17 year one, and seven year two and four last year. They take the inner ear, cut it like a tree, and can tell where the fish has lived, what it's eaten, like the rings of a tree. That's a universitybacked one.

Currently, right now, Sam Andrews, a Ph.D. student at UNB, has just completed another diet study, which is public. His paper is available for publishing right now; it's being peer reviewed. Those
are the only three interactions ones, the ASF, the DFO one and now Sam Andrews'.

Mr. Fin Donnelly: Is this contentious in any way, would you say, or is there pretty much agreement in the community?

Mr. Jeff Wilson: I think that, as with any study, when there's a margin of error of $2 \%$ to $18 \%$, the people who want to kill the bass say it's $18 \%$ and the people who want to save the bass say it's $2 \%$. But big fish eat little fish. If you wanted to do a study on brook trout, you'd find $100 \%$ of their stomach contents are salmon parr in the Miramichi, and we're not here talking about getting rid of all the brook trout.

Big fish eat little fish. If we keep taking the little fish out of the ocean, we're not going to have any big fish. That's just nature.

Mr. Fin Donnelly: So in your opinion, this is not a major or significant concern.

Mr. Jeff Wilson: I think that the major concern we have is the smelt runs and the alewife runs and those sorts of things that feed all the major harvestable fish, the bluefin tuna, the cod, the salmon. We really need to work at that. History proves that if you harvest a fish during its spawning cycle, you will destroy that fish. It's happened.

## - (1600)

Mr. Fin Donnelly: Yes. You're talking about an ecosystem approach.

## Mr. Jeff Wilson: Yes, I am. Absolutely.

Mr. Fin Donnelly: In terms of management-and just, again, by way of further comment-I think you've basically answered this one, but how do you think DFO should better manage the striped bass? Are we talking harvest levels, then, just to...?

Mr. Jeff Wilson: Again, I think they should recognize first nations' first right; they have to have a reasonable number. I think the recreational fishery needs to be reduced to one per day. I would eliminate.... I would go all hook and release during the spawn. It's fishing in a barrel, and it's fun and it's good, but if we can release them....

Then, the final thing is that where I see a lot of fish being hurt is with bait fish, with mackerel on the circle hook. When you use bait, it's very difficult for the fisherman to release the fish because the bait is so far down the throat. You're you're letting the fish go but he's dying because you hooked him so deep. A recreational fishery in the river should be with artificial bait only, I believe.

## Mr. Fin Donnelly: That's helpful.

You said one of the main issues was that we have an acute water temperature problem, which could also be a water level problem. I wanted to ask about that. What do you think is causing the temperature problem?

Mr. Jeff Wilson: I'm not a scientist. I'm just reading DFO reports that talked about the temperature level. At the eastern recreational fisheries advisory committee, we were presented with that, and it shows that water temperature.... I think we as a human being race across the country all have our opinions on what is causing climate change, but we can't deny that climate change is happening. If we could wave a wand today and stop everything we are doing, it would take 15 to 20 years for that to return.

We need to figure out how to manage that over the next 20 years. Part of that is the God-given gift that we have right now and managing that so we have something for our kids 20 years from now.

Mr. Fin Donnelly: I'm way over on the west coast and focus on the Fraser River, which is an amazing river like the Miramichi, but on the Miramichi is there a water withdrawal issue at all? Is there anything that's impacting levels?

Mr. Jeff Wilson: The problem that we have is during heavy rainfall. If we don't have the proper canopy cover, then the rain gets into the system too fast. Generally, the problem we have now is the huge water fluctuation based on heavy rains, and then, as I was saying earlier about the turbulence in the water, it turns chocolate brown.

We know that striped bass will go 10 kilometres downstream and leave. Striped bass are different from most fish. They drop their eggs, the eggs are fertilized, and they need to have a specific miles-per-hour water of 2.3 miles an hour for 48 hours in order to hatch. They don't go down into the gravel. If they go into the gravel, they die. Water flow and temperature, for those three days, around the 25th of May, is absolutely critical. Last year, we had a huge flood in May. As you know, in New Brunswick we had all kinds of flooding. It's going to be the same issue in B.C. if we take the canopy grow around the streams and the cold water streams and we let that happen.... I'm a big believer in selective harvest in everything we do.

Mr. Fin Donnelly: If you're recommending or wanting an economic study-a broader study than I think the committee here is looking at-and this committee were to recommend that DFO go forward with such as study, would you see it as complementary, the kind of economic study you're calling for?

Mr. Jeff Wilson: I work with the City of Miramichi and the Province of New Brunswick. I'm meeting Minister Holland and Premier Higgs in a couple of weeks. I'm a believer in data. If the economic fishery...if we put a proper value on the species so that it's treated equally - if that is the case, and intuitively I would say it isthen our management style needs to be adjusted to reflect that value to the citizens of the country.

Mr. Fin Donnelly: I think I might have another question in the second round for Mr. Mallet.

The Chair: Now to the government side and Mr. Morrissey for seven minutes or less, please.

Mr. Robert Morrissey (Egmont, Lib.): My questions probably will be for Martin-if I can refer to you as "Martin".

Basically it's perception versus reality. The perception in Prince Edward Island among fishers is that there has been an explosive growth in the biomass of striped bass, which has the potential to negatively impact the lobster fishery.

Martin, you're a biologist. Is that reality or perception?
$\bullet(1605)$

Mr. Martin Mallet: It is perception, Robert.

We've been waiting for some DFO data on that fact to try to dispel these myths. In the last few years, studies have looked at the stomach contents of striped bass. As I mentioned earlier, they are an opportunistic species; they can eat pretty much anything they can wrap their mouths around, and they've got pretty big mouths.

Depending on where they are and the timing of the season, if there are smelt around, they're going to eat smelt. If there are green crabs around, they're going to eat green crabs, which is an invasive species. In terms of lobsters and the gut content of the species, they're really minimal. I've fished bass myself with a few lobsters in their stomach, but they were a minority.

Mr. Robert Morrissey: You have an extensive background in lobster, in rejuvenating stocks of lobster as well. For the record, you say to the lobster fisher that there are no alarming statistics on the striped bass as a predator of lobster larvae.

## Mr. Martin Mallet: No.

Our main focus in the past 15 years in doing research on lobster settlement.... On PEI they're using these settlement index traps and in New Brunswick they're using scuba diving to settle sites for lobster. We've never seen a decrease in lobster settlement throughout this period. It's increasing as we speak. There are still more lobsters settling on the bottom than we've ever seen. There's no correlation.

Mr. Robert Morrissey: Would either one of you gentlemen recommend a commercial fishery for striped bass?

Mr. Martin Mallet: In my case, if we had not seen a decrease in the striped bass population like the one we've seen in the past two years, I would probably say that we could start experimenting with a commercial fishery. With the numbers we're seeing-around the 300,000 units level-and with the stability of the stock not being certain, I would not recommend a commercial fishery.

Mr. Robert Morrissey: Mr. Wilson, you commented that the species is not invasive. You also said that the species is susceptible to large fluctuations. Could you elaborate a bit on what drives the large fluctuation?

Mr. Jeff Wilson: Bass gets a name as invasive because of other brown bass and those sorts of fish that were introduced in the province of New Brunswick. I want to clarify that it was a natural species that's existed there for over a thousand years, as long as salmon have. It is, however, the most northern population of that species in North America. As such, it's always going to be more susceptible to water temperature fluctuations. When you consider there are 35 million bass anglers in the northeast United States.... They chase striped bass on the northeast coast of the United States. It's a passion.

My recommendation to the city and the province is that we start to let them know what we have here in the recreational fishery. We've had them come. I've had people tell me its ridiculous. Yet we have to remember that those bass only come to the Miramichi for three weeks and then they're gone. They're back out in the ocean. It's a window; it's only a window.

Mr. Robert Morrissey: Would you recommend controlling it through a recreational sport fishery?

Mr. Jeff Wilson: I think that gives the population the best bang for its buck on a God-given resource. Absolutely.

Mr. Robert Morrissey: Just out of curiosity, Mr. Wilson: You referenced a particular water temperature in which a salmon, if it swam 100 feet, would die.

- (1610)

Mr. Jeff Wilson: In the USB I provided to the members, there's an acute temperature tolerance level study presented by DFO. The information is in there. It's a five-year study done by DFO on the Miramichi.

You probably remember that last year, the water was shut down to all fishing for 57 days. I believe it was 61 the year before, but it shows a five-year temperature that.... Salmon can only survive in a deep cold water pool. If you caught that fish for even two minutes-

Mr. Robert Morrissey: In your opinion, what has had the most negative impact on the salmon stock? Is it climate change or predatory species?

Mr. Jeff Wilson: By far, it's climate change.
It's climate change, hands-down. It's not even a fight.
Mr. Robert Morrissey: A lot of people would view it as predatory species, such as seals. We've heard all kinds of-

Mr. Jeff Wilson: Listen, humans want scapegoats. We look for a scapegoat. We want an answer, and when the answer is cloudy, it's not the right answer.

When I go fishing, I fish stuff that people can't see. I do really well at it, but if you can see it, you'll fish it. It's the stuff we can't see that haunts us the most, and that's the same thing with climate change. It's the bogeyman, but you can't argue with data. DFO has the water temperature. The striped bass, as Mr. Mallet said, took advantage of some good conditions back in 2009. That young-of-the-year class has now gone through a population boom-

Mr. Robert Morrissey: It's not sustainable at that.
Mr. Jeff Wilson: Last year's spawning was terrible. The water was high, it was cold and it was too fast. Seven years from now,
when we go to talk about spawning fish, we're going to say, "What happened?"

Mr. Robert Morrissey: So with all of these great striped bass that I'm seeing in P.E.I. waters, near where people are fishing, this is not going to be a trend they should get used to.

Mr. Jeff Wilson: Well, if we protect the size of the school we have now, I think it's sustainable recreationally in the Dungarvon River and all the areas in P.E.I.

I have a lot of friends in P.E.I. who come to the Striper Cup. They're over there fishing striped bass right now. You'll probably see a huge recreational fishery there, but if we let it go less, they won't travel that far.

Mr. Robert Morrissey: Thank you, both of you. That was fascinating testimony.

The Chair: Now we'll go to the Conservative side and Mr. Arnold, for five minutes or less, please.

Mr. Mel Arnold (North Okanagan-Shuswap, CPC): Thank you, Mr. Chair, and thank you, both, for appearing today.

It's interesting. You obviously have a very in-depth background on the species. It was interesting to hear about the spawning, and how it's successful or not successful.

One of the things that we sometimes see in this committee is a delayed or slow response to changes. It sounds like striped bass are very susceptible to big swings in population numbers, spawning, escapement numbers and so on. How much anecdotal information is there from fishermen, and how much of that information is taken and accepted by fisheries management, whether it's provincial or DFO?

I'll let both of you answer that briefly, if you could.
Mr. Jeff Wilson: Mr. Mallet, go ahead.

## Mr. Martin Mallet: Sure.

A big part of the information comes from our fishermen. It is verified in the sense that they do open up some of the fish they catch in their traps to see what they're eating. The most important predator for lobster, for instance, is actually the sculpin. It's a bottom-dwelling critter that is a stalker. When a lobster goes right in front of it, it's going to gulp it up.

On the striped bass side of things, we've heard all kinds of stories going around. We've seen all kinds of things on Facebook where you have some fishermen showing two or three lobsters in the mouth of a striped bass. Is this something that was planted there, or was it the real thing?

I've seen it myself. I've seen bass eat lobster, but like I mentioned earlier, the studies have shown that it's just part of the diet of striped bass. It's not targeting lobster and it's not targeting smelt. It is a multi-species predator, so if there's a smelt that runs in the way of a striped bass, it's going to eat the smelt.

From our point of view, our main concern would be for smelt and gaspereau.

- (1615)

Mr. Mel Arnold: Getting back to my question, though, how much of the information from fishermen is taken by DFO and used by DFO or provincial fisheries management?

Mr. Martin Mallet: It's mostly taken into account when it comes time to devise studies to try to figure out if what the fishermen are saying is the truth in terms of scientific data or analysis.

Mr. Mel Arnold: Mr. Wilson, do you have anything to add?
Mr. Jeff Wilson: Up until a couple of years ago, I'd say not much. But I've been involved in the eastern recreational advisory committee for DFO, so I have seen them actually have stakeholder meetings, which to me is a great thing. We do need intuitive...although I always caution my fellow anglers that the scientists are not biased. They're going to give you the data they have, and fishermen tend to be fibbers, so to say.

Some hon. members: Oh, oh!
An hon. member: It was this big.
Mr. Jeff Wilson: The fastest-growing species in the world is the fish you caught like this, and by the time you get to the dock it's like this.

Some hon. members: Oh, oh!
Mr. Jeff Wilson: DFO must take that with a grain of salt. They need to pay attention to it because we are the stewards of the river, but they also have to verify it with studies and information. That's my comment.

Mr. Mel Arnold: If I were to wrap that up quickly, we need to rely on reliable science rather than emotional input.

Mr. Jeff Wilson: Yes, but some recreational fisheries.... I'm not going to lie to DFO. I'm going to tell them I'm passionate about the opportunity, but not everybody could be the same.

Mr. Mel Arnold: Can I ask you both briefly, how would you recommend that we make changes to fisheries departments, whether they're.... We can't suggest changes to provincial departments, but we can to DFO.

What would you recommend to make their decision-making process more reactive? It seems to take a long time for regulations to change or quotas to change. They don't seem to be that reactive. Are there any recommendations?

Mr. Martin Mallet: That's a tough question. We've been asking that for 60 years.

I think we can't underestimate the need for good science in any good decision-making system. We've seen over the years that sometimes we have really good science that is done, and when it comes down to...because these are all within DFOs different
departments. You have the science department, then you have the management department, per se, which will sometimes take a completely different approach to what the science department will be recommending.

As a third thing, I think that the stakeholders sometimes have really good options or suggestions to make that should be taken into account maybe for future studies or as ideas moving forward for better managing the fisheries. A multi-stakeholder approach is important, but better listening to the science and better science should be number one.

The Chair: Thank you, Mr. Arnold. That's all we have. It was actually over time a bit.

Now we'll go to the government side again, and Mr. Rogers, for five minutes or less, please.

Mr. Churence Rogers (Bonavista-Burin-Trinity, Lib.): Thank you to our guests.

I'm not sure if I have a lot of questions for you gentlemen today, because it seems like your crazy fishery has fluctuating numbers. Some of the stuff I've read here says that in March 2018 DFO released its findings showing that the southern Gulf of St. Lawrence striped bass population increased to over 300,000 spawners in 2016, and over 10 times the recovery target, and that "The median of the estimated spawner abundance in 2017 was 994,000 ". However, the estimated spawner abundance fluctuation varied widely from a low of 486,000 to over two million.

Those are some crazy numbers in terms of fluctuations.
First of all, Mr. Mallet, you mentioned in your presentation that we should probably be considering striped bass as bycatch for lobster fishermen. Is that correct? Did I hear that right?

- (1620)

Mr. Martin Mallet: I think I apparently didn't explain myself clearly. Bycatch for gaspereau fishermen is something that our members have talked about, and have spoken about that as an option to DFO several times in the past few years. However, that was considering the fact that the striped bass population was on the constant upswing. That's no longer the case. With the recent numbers, we've seen a decline in the last two years.

Mr. Churence Rogers: Okay. I just wanted to make that correction to make sure I understood that.

The other thing you mentioned was that the reason for the decline in the biomass probably has to do more with environmental cold and rough winters. Is that a major contributing factor from your perspective?

Mr. Martin Mallet: That is my perspective on it, yes, the direct full impact.

Mr. Churence Rogers: Mr. Wilson, I just want to ask you a couple of questions around some of these crazy numbers I was talking about.

In your view, what has led to the rapid increase of the striped bass populations, some of these numbers in particular here?

Mr. Jeff Wilson: We had excellent spawning conditions back a number of years ago, so you're seeing those young of the year now. In the study I gave you, you'll see the bubble size of the population moving forward. What's concerning is the back end, where the young of the year don't look like they're repopulating that school size. As Mr. Mallet said, if that school size had gone to two million, I would be here recommending that there's probably something to do, that there's probably more of a harvesting ability. What's really a concern is that it dropped.

One might question the science behind the numbers, but if it were flawed, it's been flawed exactly the same every year. We have to really look at trends. Maybe the trend going up was flawed, but the trend going down will be flawed too. The bad information is bad every year, so we just look at trends. That's the fluctuation.

Do you see the huge mean difference they're talking about? You have to remember they're taking a trap net. If the water temperature on May 25 is not correct, and it happened May 15, the trap net wasn't there. It's only put in the water at the proper time.

There's something a bit fudgy there. It's exactly the same thing in all the diet studies, but we do know that it's a northern population and that Mother Nature will make an adjustment, and she did.

It's the same thing that happened last year in New Jersey, where all those wonderful consumers are. They lost two-thirds of their population as well-and they didn't go to Labrador, I promise you.

Mr. Churence Rogers: For both of you, I guess, what relationship, if any, does your organization have with DFO in estimating the striped bass population?

Mr. Jeff Wilson: I've asked them to come to our event. I think we offer by far the best data-gathering opportunity of any on the river, because we bring live fish into the scale, we treat them with love and respect, we give them to the scientists at Acadia University and they do little mucous studies to determine the stress levels and everything, so I think it's a great opportunity.

Now, I also would commend DFO. They've worked very well with me and have helped me along.

Mr. Churence Rogers: Mr. Mallet.
Mr. Martin Mallet: In our case, we do not collaborate in terms of giving out work or working with DFO on the species. We have some other priorities, but we are following the file. We are following where DFO is going with it. As I mentioned earlier, if there were potential for a commercial fishery, we'd be the first ones hopping on it, right? It's right at the back door.

Mr. Churence Rogers: Okay, thank you.
The Chair: Thank you, Mr. Rogers.
I'll turn it over to the Conservative side for the last five minutes of our first hour.

Mr. Arnold.
Mr. Mel Arnold: I'll start, and then I'm going to pass it on to Mr. Sopuck.

Mr. Wilson, you were touching briefly on slot limits or size limits for fisheries. Can you perhaps enlighten us a little bit more on how these might be used to manage the striped bass fishery in the future,
given that you were speaking about how, when there's a poor recruitment year or a poor spawning year, you may have a low return in certain stocks?

Mr. Jeff Wilson: In the Saint John River you have to keep a fish over 68 centimetres, and in the Miramichi you have to keep a fish between 55 centimetres and 65 centimetres. That slot limit protects the big spawners. You're not allowed to kill big fish, that big female. You shouldn't be able to do that in the Saint John River either. You're not going to kill your most fertile cow and keep all the little ones; you're just not going to do that. It's exactly the same with a fishery. That big spawner is going to populate your whole harvest capability in four years, right?

- (1625)

Mr. Mel Arnold: If you had a year when you had a large abundance of big spawners coming up, but you knew the ones that were going to be spawners in two or three years' time were in a small slot limit, would you be able to exclude that smaller slot?

Mr. Jeff Wilson: Yes. Right now you see that coming, but natural fluctuations in the school will actually protect against an overabundance of spawners. Right now, we have a bit of a problem where we have way more males than females, but that's just an effect of nature. Eventually those males will die off. Mother Nature again will make that adjustment for us. We don't have to do a thing. I promise you that it will go back to normal.

Mr. Mel Arnold: You wouldn't have to protect those smaller ones before they become-

Mr. Jeff Wilson: You are, by not letting people take fish under 55 centimetres. That allows those young each year to get robust and strong. You get to harvest there, when they're in that bulk of the population, knowing you've got some big ones that are going to continue through.

Mr. Mel Arnold: Thank you. I'll pass it on to my colleague.
Mr. Robert Sopuck: I have one question I'd like each of you to stake a stab at. Are both of you satisfied with how responsive DFO has been to your concerns in general terms? If the answer is yes, could you say why? If the answer is no, what would you recommend?

## Mr. Mallet.

Mr. Martin Mallet: I think that the science has been pretty decent with regard to putting in the effort to try to understand what's going on with the population in the last five or six years. The main reason for that was probably the pressure coming from the salmon associations-the salmon fishermen and anglers.

The main question we were asking as inshore fishermen was what the impacts are of this new population boom for striped bass on our principal commercial fisheries, which are lobster and herring-but especially lobster. From what we've seen, it's minimal.

Mr. Jeff Wilson: I think DFO needs to up its game considerably as it understands the striped bass. When I go to a meeting of the eastern advisory committee and I have this much information on salmon and only one eight-by-eleven sheet of paper on the striped bass, and the striped bass information is critical, I think that we still have a ways to go to understand this species.

Mr. Robert Sopuck: Mr. Wilson, is DFO responsive to you? When you ask for meetings, are they there? Do they show up?

Mr. Jeff Wilson: Yes.
Mr. Robert Sopuck: That's good to hear.
I'm done, Mr. Chair. Thank you.
The Chair: Thank you, Mr. Sopuck.
With the permission of the committee, I'd like to allow Mr. Donnelly a couple of minutes.

Mr. Donnelly.
Mr. Fin Donnelly: Thank you, Mr. Chair, and thanks to the committee.

I just have one question for each witness.
Mr. Mallet, does the MFU have any further recommendations for this study? Do you have any concerns with this study? In other words, would you like to see a different focus of priorities-on smelts or something like that?

Mr. Martin Mallet: As an association, and with some of our other partner associations in the gulf, we are really pushing for more ecosystem-based approaches to science and what's going on with climate change and the interrelationships between these species. I can go on with a huge list of examples here, starting with the situation with whales that we had in the past two years. There are major shifts right now in the distribution of several species. We've mentioned the whales and we can talk about herring. There's a major crisis coming with some of the pelagic species we depend on. We have good monitoring of these species, knowing what their populations are, but we don't know why they're fluctuating. It's the same thing for bass.

We have several thousand grey seals in the gulf. What's the impact of grey seals on salmon, bass and other important species that we fish commercially? An ecosystem approach to try to figure out what's going on in light of climate change is coming up as a major push point from the MFU to move forward with.
-(1630)
Mr. Fin Donnelly: Excellent. Thank you.
Mr. Wilson, you brought up a point that when promoting the striped bass to the U.S. rec fishers, some felt it was ridiculous. Can you just elaborate a little bit about why that is?

Mr. Jeff Wilson: The problem that we had here in the province of New Brunswick was that nobody was fishing these. They didn't see them as a valuable recreational fishery. As I always say, they call it "Bass Pro", not "Salmon Pro". It's a huge driver in the United States.

When I would tell them that you could go out for a day and catch a hundred fish, they would say, "What? You're dreaming." However, I managed to get a lot of TV shows to come because I said that if they couldn't catch a hundred in a day, I'd pay all their expenses. I've yet to write a cheque. It worked pretty good. I did put my name on the line a little bit, but I felt that it was important. I think they're so much more valuable, economically, to us in the recreational fishery than they will ever be in the commercial fishery for this species.

Mr. Fin Donnelly: Thank you.
The Chair: In closing, I want to thank both of our witnesses, Mr. Mallet and Mr. Wilson.

It's certainly been a very informative session for the committee this afternoon with the two witnesses we've had for this particular study.

Thank you for your participation. If there is anything you think was not heard, please get it to the committee. We can include it in the study or recommendations.

We're going to suspend now for a couple of minutes to switch over to committee business. I ask everybody to be very brief.
[Proceedings continue in camera]

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