



HOUSE OF COMMONS  
CHAMBRE DES COMMUNES  
CANADA

# **STRIPED BASS IN THE SOUTHERN GULF OF ST. LAWRENCE AND MIRAMICHI RIVER: STRIKING A DELICATE BALANCE**

**Report of the Standing Committee on Fisheries and Oceans**

**Ken McDonald, Chair**

**MAY 2019  
42<sup>nd</sup> PARLIAMENT, 1<sup>st</sup> SESSION**

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**Ken McDonald  
Chair**

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## **NOTICE TO READER**

### **Reports from committee presented to the House of Commons**

Presenting a report to the House is the way a committee makes public its findings and recommendations on a particular topic. Substantive reports on a subject-matter study usually contain a synopsis of the testimony heard, the recommendations made by the committee, as well as the reasons for those recommendations.

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# **THE STANDING COMMITTEE ON FISHERIES AND OCEANS**

has the honour to present its

## **TWENTY-THIRD REPORT**

Pursuant to its mandate under Standing Order 108(2), the Committee has studied the impact of the rapid increase of the striped bass in the Miramichi river and the Gulf of St. Lawrence and has agreed to report the following:





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# LIST OF RECOMMENDATIONS

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*As a result of their deliberations committees may make recommendations which they include in their reports for the consideration of the House of Commons or the Government. Recommendations related to this study are listed below.*

## **Recommendation 1**

**That Fisheries and Oceans Canada establish upper and lower limit reference point thresholds for striped bass and adjust them if necessary based on justifiable scientific evidence. .... 11**

## **Recommendation 2**

**That Fisheries and Oceans Canada’s restoration framework prioritize the long-term balance of fish species in the Southern Gulf of Saint Lawrence and Miramichi River. .... 12**

## **Recommendation 3**

**That a mechanism for controlling the striped bass population include a First Nation commercial and food, social and ceremonial fishery, and recreational public food catch and possession limits. .... 12**

## **Recommendation 4**

**That Fisheries and Oceans Canada remove the maximum length restriction of 65 cm for the striped bass retention fishery, unless required for protection of spawners and population management. .... 13**

## **Recommendation 5**

**That Fisheries and Oceans Canada invest more resources to obtain better data on the striped bass numbers and life cycle as well as how it is affected by climate change. .... 13**

**Recommendation 6**

**That Fisheries and Oceans Canada commit to transparent and timely publication of all research and data related to striped bass, including rationale for decisions made on striped bass management and other decisions regarding the Miramichi ecosystem, and that this information is made readily available to the public, and explained to all local stakeholders. .... 14**

**Recommendation 7**

**That traditional knowledge of First Nations, local stakeholders and stewards be part of the science-based decision-making through meaningful consultations, and that these consultations happen in their communities. .... 15**

**Recommendation 8**

**That Fisheries and Oceans Canada work to improve the timeliness of public notices regarding recreational angling of striped bass to ensure stakeholders and anglers are aware of the regulations as early as possible prior to the season opening. .... 15**

**Recommendation 9**

**That Fisheries and Oceans Canada prioritize First Nations food, social and ceremonial fishery when determining the striped bass catch. .... 17**

**Recommendation 10**

**That the First Nation commercial fishery be given a full annual allotment of striped bass at the beginning of the spring fishing season. .... 17**

**Recommendation 11**

**That Fisheries and Oceans Canada ensure licences are granted on time to the First Nations to ensure they can legally operate a commercial fishery each year. .... 17**

**Recommendation 12**

**That other predators of Atlantic salmon be managed; specifically, the eradication of the invasive smallmouth bass from Miramichi Lake using the rotenone pesticide, and a sustainable harvest of the grey seal. .... 19**



# STRIPED BASS IN THE SOUTHERN GULF OF ST. LAWRENCE AND MIRAMICHI RIVER: STRIKING A DELICATE BALANCE

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## INTRODUCTION

The recovery of the striped bass (*Morone saxatilis*) in the Southern Gulf of St. Lawrence and Miramichi River from critically low population levels in the 1990s to its current abundant state has been termed a “good news story” by Fisheries and Oceans Canada (DFO).<sup>1</sup> The increase of the striped bass population has led to the creation of a successful recreational fishing industry and has helped re-establish a First Nation commercial fishery, which advances reconciliation. However, the rapid population increase of striped bass has also raised concerns of ecosystem imbalances and further strains on struggling wild Atlantic salmon (*Salmo salar*) populations.

In this context, on 6 November 2018, the House of Commons Standing Committee on Fisheries and Oceans (the Committee) adopted a motion to:

...undertake a study on the impact of the rapid increase of the Striped Bass in the Miramichi River and the Gulf of St. Lawrence, and how and when reference points are determined which may trigger interventions on this and other predators affecting other species and marine life; that this study be comprised of no less than three meetings; and that the committee report its findings with recommendations back to the House.<sup>2</sup>

The Committee heard from all witnesses that a balance must be struck between managing a healthy striped bass population and ensuring that other species, in particular wild Atlantic salmon, are protected from excessive predation. As Deborah Norton of the Miramichi Watershed Management Committee noted: “Striped bass is not a bad fish. It just has to eat.”<sup>3</sup>

The Committee held two public meetings on 25 February 2019 and 1 April 2019, during which it heard testimony from commercial and recreational fishing organizations,

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1 Serge Doucet, Regional Director General, Gulf Region, Fisheries and Oceans Canada, *Evidence*, 1 April 2019.

2 House of Commons, Standing Committee on Fisheries and Oceans [FOPO], *Minutes of Proceedings*, 6 November 2018.

3 Deborah Norton, President, Miramichi Watershed Management Committee Inc., *Evidence*, 1 April 2019.

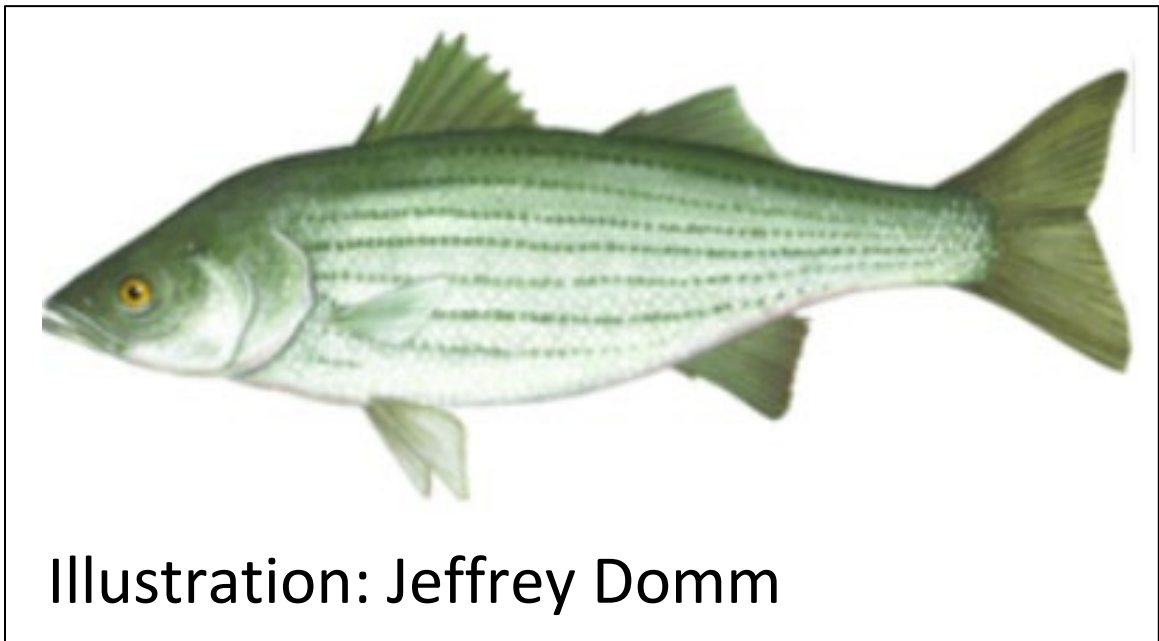


salmon conservation groups, the Miramichi Watershed Management Committee, and Gulf Region DFO officials.

The members of the Committee would like to extend their sincere thanks to all the witnesses who participated in this study. The Committee is pleased to present the results of its study in this report, along with recommendations based on the evidence it heard.

## BACKGROUND

Figure 1—Striped Bass (*Morone saxatilis*)



Source: Fisheries and Oceans Canada, [Striped Bass \(Southern Gulf of St. Lawrence Population\)](#), 19 December 2016.

Striped bass is an anadromous fish (i.e., adult fish live in the sea and migrate into fresh water to spawn) that is found throughout the coastal areas of eastern North America from northern Florida to the St. Lawrence River. The largest populations of striped bass exist in the centre of their range in the Chesapeake Bay in Maryland and in New York's Hudson River. In Canada, there are three distinct populations of striped bass: the St. Lawrence River, the Southern Gulf of St. Lawrence (SGSL) and the Bay of Fundy. The St. Lawrence River population was considered extirpated (i.e. locally extinct), but with efforts being undertaken to reintroduce the population, it is now listed as endangered by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC). The Bay of Fundy

population is largely confined to spawning in the Shubenacadie River in Nova Scotia and the Saint John River in New Brunswick.<sup>4</sup>

The SGSL population (which was the focus of this study) spawns exclusively in the Northwest Miramichi River in New Brunswick, usually in early to mid-June. Mark Hambrook of the Miramichi Salmon Association informed the Committee that a possible second spawning location was found on the Southwest Miramichi River.<sup>5</sup> As shown in Figure 2, the SGSL population of striped bass is a coastal species which largely limits itself to a 10-km band off the coast between the Gaspé Peninsula and Cape Breton Island, as well as off the coast of Prince Edward Island.<sup>6</sup> Witnesses informed the Committee that the striped bass was also found “prospecting” in Labrador.<sup>7</sup>

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4 Committee on the Status of Endangered Wildlife in Canada, [\*COSEWIC Assessment and Status Report on the Striped Bass \(Morone saxatilis\)\*](#), 2012.

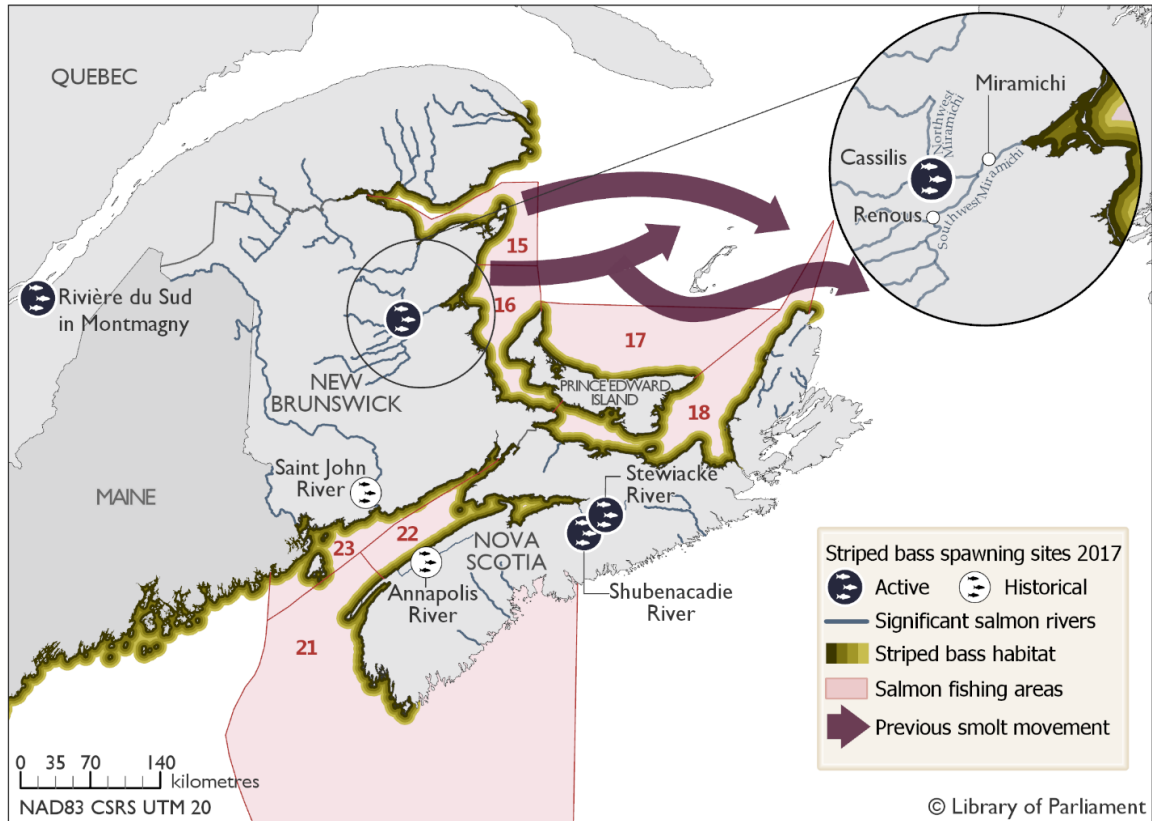
5 Mark Hambrook, President, Miramichi Salmon Association Inc., [\*Evidence\*](#), 1 April 2019.

6 Committee on the Status of Endangered Wildlife in Canada, [\*COSEWIC Assessment and Status Report on the Striped Bass \(Morone saxatilis\)\*](#), 2012.

7 “It would seem that they collectively decided to go out and prospect to see if there were other places to live.”  
Doug Bliss, Regional Director, Science, Gulf Region, Fisheries and Oceans Canada, [\*Evidence\*](#), 1 April 2019.



**Figure 2—Striped Bass Habitat and Salmon Fishing Areas**



Source: Map prepared by Library of Parliament, Ottawa, 2019, using data from Natural Resources Canada (NRCan), *Atlas of Canada National Scale Data 1:5M Series, "Boundary Polygons,"* Ottawa, NRCan, 2013; Committee on the Status of Endangered Wildlife in Canada (COSEWIC), *Assessment and Status Report on the Atlantic Salmon in Canada,* Ottawa, Species at Risk Public Registry, 2011; COSEWIC, *Assessment and Status Report on the Striped Bass *Morone saxatilis* in Canada,* Ottawa, Species at Risk Public Registry, 2012; *Administrative boundaries in Canada – CanVec Series, "Administrative features,"* 1:1M, Ottawa, NRCan, 2018; *Lakes, rivers and glaciers in Canada – CanVec Series, "Hydrographic features,"* 1:1M, Ottawa, NRCan, 2018; Statistics Canada, *Drainage Regions of Canada,* 2017; Fisheries and Oceans Canada (DFO), *Spawner Abundance and Biological Characteristics of Striped Bass (*Morone saxatilis*) in the Southern Gulf of St. Lawrence in 2017,* DFO Canadian Science Advisory Secretariat Science Response 2018/016; *Atlantic Fishery Regulations, 1985,* SOR/86-21; DFO, *Aquatic Species at Risk,* accessed January 2019. The following software was used: Esri, ArcGIS Pro, version 2.1.0. Contains information licensed under [Open Government Licence – Canada](#) and [Statistics Canada Open Licence Agreement](#).

The SGSL striped bass population has historically been exploited by commercial and recreational fishers, as well as by First Nations. According to COSEWIC, the spawning population decreased to fewer than 5,000 individuals in the late 1990s, due to factors which include: climatic constraints, overfishing, illegal fishing, bycatch and the presence



of contaminants.<sup>8</sup> These threats led to the closure of the commercial fishery in 1996, and the closure of the recreational, and Aboriginal food, social and ceremonial (FSC) fisheries in 2000.<sup>9</sup> The FSC fishery was reopened in 2013.<sup>10</sup> In July 2018, the first commercial striped bass fishery since 1996 was opened, with the Eel Ground First Nation being licensed to fish for 25,000 individual fish in October 2018.<sup>11</sup>

In November 2004, COSEWIC assessed the population as “threatened,” and reclassified it in 2012 as a species of “special concern.”<sup>12</sup> According to Mark Hambrook, the striped bass remains on the COSEWIC list solely because there is only a single confirmed spawning location.<sup>13</sup>

The 2007 Recovery Potential Assessment conducted by DFO during the *Species at Risk Act* (SARA) listing decision process after the initial COSEWIC assessment, proposed a recovery target of 21,600 spawners within five of the next six consecutive years, and thereafter at least 31,200 spawners over the next three of six consecutive years to consider opening a directed fishery with catch parameters.<sup>14</sup>

After conducting consultations in 2013, as required under SARA, the Governor in Council declined to list the SGSL striped bass population as a species at risk under the Act, largely due to “significant socio-economic impacts on communities” that would follow closures of other coastal fisheries as a result. The Governor in Council pointed specifically to negative impacts on the rainbow smelt, gaspereau and American Eel fisheries.<sup>15</sup> The Governor in Council instead pointed to other measures to protect the population, including:

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- 8 Committee on the Status of Endangered Wildlife in Canada, [\*COSEWIC Assessment and Status Report on the Striped Bass \(Morone saxatilis\)\*](#), 2012.
  - 9 Committee on the Status of Endangered Wildlife in Canada, [\*COSEWIC Assessment and Status Report on the Striped Bass \(Morone saxatilis\)\*](#), 2012.
  - 10 Fisheries and Oceans Canada [DFO], [\*Striped Bass \(Southern Gulf of St. Lawrence Population\)\*](#), 19 December 2016.
  - 11 Hadeel Ibrahim, [\*“First striped bass commercial fishery in 20 years goes ahead on Miramichi,”\*](#) *CBC News*, 3 September 2018.
  - 12 COSEWIC defines “threatened” as “a wildlife species that is likely to become endangered if nothing is done to reverse the factors leading to its extirpation or extinction,” and “special concern” as “a wildlife species that may become threatened or endangered because of a combination of biological characteristics and identified threats.” See, COSEWIC, [\*COSEWIC wildlife species status categories and definitions\*](#).
  - 13 Mark Hambrook, President, Miramichi Salmon Association Inc., [\*Evidence\*](#), 1 April 2019.
  - 14 DFO, Canadian Science Advisory Secretariat [CSAS], [\*Spawner Abundance and Biological Characteristics of Striped Bass \(Morone Saxatilis\) in the Southern Gulf of St. Lawrence in 2017\*](#), March 2018; and DFO, CSAS, [\*Recovery Potential Assessment for the St. Lawrence Estuary, Southern Gulf of St. Lawrence and Bay of Fundy Striped Bass \(Morone saxatilis\) Populations\*](#), May 2007.
  - 15 [\*List of Wildlife Species at Risk \(Decisions Not to Add Certain Species\) Order\*](#), SI/2013-27, 7 March 2013, in *Canada Gazette*, Part II, Vol. 147, No. 7, 27 March 2013.



- increasing enforcement patrols;
- closing the spawning grounds of the Northwest Miramichi River to anglers annually between 1 May and 30 June;
- training harvesters on how to effectively handle and release striped bass caught as bycatch; and
- conducting further scientific studies to better understand the SGSL striped bass population and its distribution.<sup>16</sup>

In March 2018, DFO released findings that showed the SGSL striped bass population had increased to over 300,000 spawners in 2016, and that “the median of the estimated spawner abundance in 2017 was 994,000.” However, it should be noted that although the median abundance was used, there was a large variance between the maximum and minimum abundance measures; varying between a statistically significant lower value of 486,600 (5<sup>th</sup> percentile) to the higher value of 2,063,000 (95<sup>th</sup> percentile).<sup>17</sup>

In March 2019, DFO released its updated spawner abundance findings, that showed that the 2018 striped bass spawner abundance declined to a median of 333,000 spawners. Again, there was a large variance between the maximum and minimum abundance estimates; varying between a statistically significant lower value of 154,000 (5<sup>th</sup> percentile) to the higher value of 623,000 (95<sup>th</sup> percentile). Figure 3 shows that since 2006, the number of spawners exceeded the 31,200 target set by DFO during more than the three of six years set forth as the benchmark for reopening the fishery, in addition to the 21,600 recovery target.<sup>18</sup>

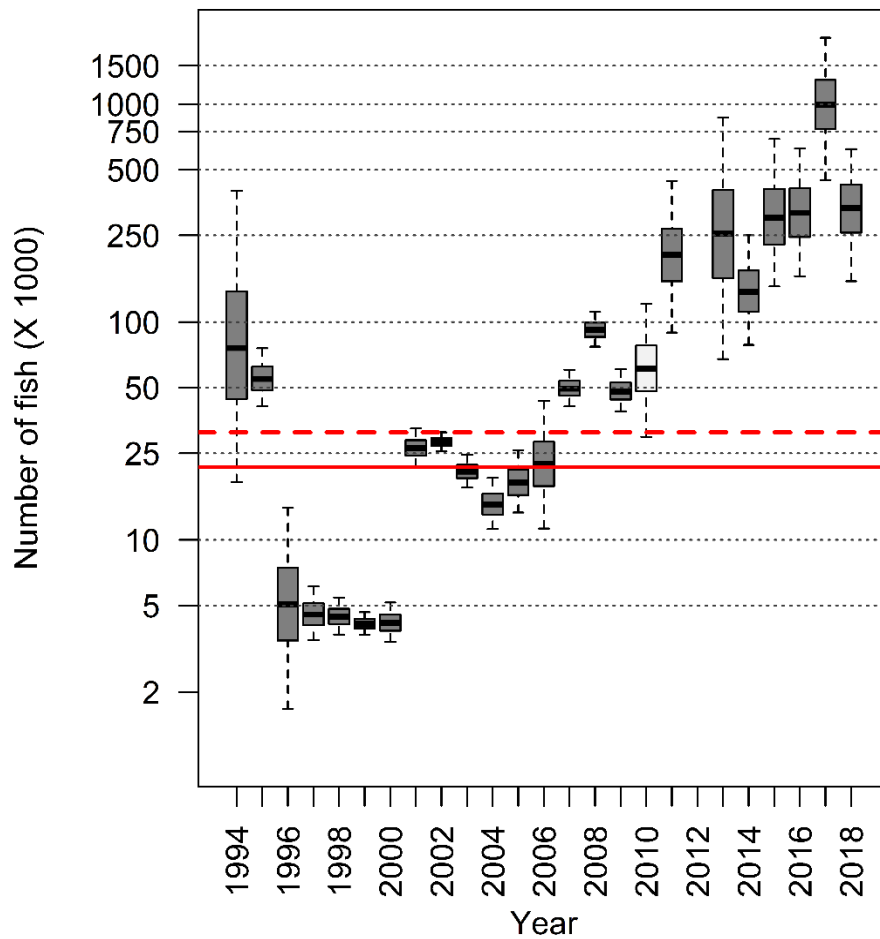
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16 [List of Wildlife Species at Risk \(Decisions Not to Add Certain Species\) Order](#), SI/2013-27, 7 March 2013, in *Canada Gazette*, Part II, Vol. 147, No. 7, 27 March 2013.

17 DFO, CSAS, [Spawner Abundance and Biological Characteristics of Striped Bass \(Morone Saxatilis\) in the Southern Gulf of St. Lawrence in 2017](#), March 2018.

18 DFO, CSAS, [Update of Spawner Abundance and Biological Characteristics of Striped Bass \(Morone Saxatilis\) in the Southern Gulf of St. Lawrence to 2018](#), March 2019.

**Figure 3—Estimated Abundances of Adult Striped Bass Spawners in the Northwest Miramichi Estuary Between 1994 and 2018<sup>19</sup>**



Source: Fisheries and Oceans Canada, Canadian Science Advisory Secretariat, *Update of Spawner Abundance and Biological Characteristics of Striped Bass (*Morone Saxatilis*) in the Southern Gulf of St. Lawrence to 2018*, March 2019.

<sup>19</sup> Box plots are interpreted as follows: dash is the median, boxes are the interquartile range, and the vertical dashes are the 5th to 95th percentile ranges. The solid and dashed horizontal lines show the recovery objectives defined in the Recovery Potential Assessment in support of the Species at Risk Act listing decision process.



## WHAT THE COMMITTEE HEARD

Throughout the Committee's study, witnesses repeatedly raised a number of themes, in particular, the need:

- for evidence-based decision-making with respect to setting population reference points;<sup>20</sup>
- for a nimble, meaningful and engaged consultation process and co-management strategy for the species;
- for increased First Nation input and participation in the co-management of the species and the development of a viable commercial striped bass fishery;
- to properly protect the iconic wild Atlantic salmon from predators, including (but not limited to) the striped bass; and
- for further follow through and participation by DFO in response to stakeholder concerns, including First Nation communities, recreational and commercial fishers and this Committee.

## Reference Points and Evidence-based Decision Making

The Committee heard different proposals for establishing an upper reference point for the striped bass population in the SGSL, but all emphasized that decisions on the issue should be based on the empirical data and evidence collected in the ecosystem.

Martin Mallet of the Maritime Fishermen's Union (MFU) noted that while there is a perception that a growing striped bass population is acting as a strain on the lobster fishery, he is waiting for "DFO data on that fact to try to dispel these myths."<sup>21</sup> According to Mr. Mallet, given the fluctuating populations of striped bass over the past few years, the "fragility of the stock" requires further ecological research.<sup>22</sup>

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20 DFO defines a "limit reference point" as "the boundary between the cautious and critical zones. When a fish stock level falls below this point, there is a high probability that its productivity will be so impaired that serious harm will occur. The limit reference point is established based on the best available scientific information." See DFO, [A Fishery Decision-Making Framework Incorporating the Precautionary Approach](#).

21 Martin Mallet, Executive Director, Maritime Fishermen's Union, [Evidence](#), 25 February 2019.

22 Maritime Fishermen's Union, [Brief](#), 25 February 2019.

Witnesses who represent the recreational catch and release Atlantic salmon fishery on the Miramichi River called on DFO to establish an upper limit reference point, but disagreed on what target should be the reference point. John Bagnall of the New Brunswick Salmon Council believed that the striped bass population should be brought down to less than 100,000 spawners.<sup>23</sup> He noted that the target of 300,000 spawners is far too high. Deborah Norton emphasized that she was not a biologist, but that developing an upper reference point is a priority.<sup>24</sup>

Bill Taylor, representing the Atlantic Salmon Federation (ASF), a conservation group, proposed both an upper and lower reference point, with an upper limit of 300,000 spawners and a lower limit of 31,200 spawners, representing the recovery target set by DFO in 2007.<sup>25</sup> Jeff Wilson, representing the Miramichi Striper Cup, however noted that 300,000 spawners should be the absolute minimum reference point.<sup>26</sup>

When DFO officials appeared before the Committee they confirmed that its proposed science plan is:

...to provide biological reference points for the species; to examine or re-examine recurring questions about the species; such as striped bass diet measurements and assessing whether other spawning areas exist; and finally, to undertake focused studies to understand the environmental stresses and ecosystem dynamics influencing this and many other species.<sup>27</sup>

DFO did not, however, indicate what the reference points would be.

Even though opinions vary as to what should be used as the upper limit reference point for a sustainable striped bass population, the Committee recommends:

### **Recommendation 1**

**That Fisheries and Oceans Canada establish upper and lower limit reference point thresholds for striped bass and adjust them if necessary based on justifiable scientific evidence.**

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23 John Bagnall, Chair, Fisheries Committee, New Brunswick Salmon Council, [Evidence](#), 1 April 2019.

24 Deborah Norton, President, Miramichi Watershed Management Committee Inc., [Evidence](#), 1 April 2019.

25 Bill Taylor, President and Chief Executive Officer, Atlantic Salmon Federation, [Evidence](#), 1 April 2019.

26 Jeff Wilson, Co-host and Founder, Miramichi Striper Cup, [Evidence](#), 25 February 2019.

27 Doug Bliss, Regional Director, Science, Gulf Region, Fisheries and Oceans Canada, [Evidence](#), 1 April 2019.



## Recommendation 2

### **That Fisheries and Oceans Canada’s restoration framework prioritize the long-term balance of fish species in the Southern Gulf of Saint Lawrence and Miramichi River.**

In addition to reference points, methods of controlling the striped bass population in the SGSL include the First Nation commercial fishery and recreational bag limits. While Martin Mallet insisted that there has not been enough study on the population to justify a commercial striped bass fishery, witnesses generally approved of the Eel Ground First Nation’s participation in the commercial fishery. Jeff Wilson, who was otherwise sceptical of controlling striped bass populations conceded that there is the notion of “First Nation’s first right; they have to have a reasonable number.”<sup>28</sup>

Jeff Wilson also called for lowering the recreational bag limit to one striped bass per day, and instead encourage a catch and release fishery, which he estimated has a positive economic impact of \$3.8 million over the six-day period of the Striper Cup.<sup>29</sup> Bill Taylor however, was encouraged by DFO’s 2018 increase in the daily bag limit.<sup>30</sup>

Slot limits were also discussed, with Jeff Wilson stating:

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’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.<sup>31</sup>

By contrast, Bill Taylor called on DFO to eliminate the slot limit in the Eel Ground First Nation’s commercial fishery and eliminate the upper slot size for the recreational fishery.<sup>32</sup>

## Recommendation 3

### **That a mechanism for controlling the striped bass population include a First Nation commercial and food, social and ceremonial fishery, and recreational public food catch and possession limits.**

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28 Jeff Wilson, Co-host and Founder, Miramichi Striper Cup, [Evidence](#), 25 February 2019.

29 Jeff Wilson, Co-host and Founder, Miramichi Striper Cup, [Evidence](#), 25 February 2019.

30 Bill Taylor, President and Chief Executive Officer, Atlantic Salmon Federation, [Evidence](#), 1 April 2019.

31 Jeff Wilson, Co-host and Founder, Miramichi Striper Cup, [Evidence](#), 25 February 2019.

32 Bill Taylor, President and Chief Executive Officer, Atlantic Salmon Federation, [Evidence](#), 1 April 2019.

#### **Recommendation 4**

**That Fisheries and Oceans Canada remove the maximum length restriction of 65 cm for the striped bass retention fishery, unless required for protection of spawners and population management.**

When DFO officials appeared before the Committee, they pointed to several ongoing studies, some in collaboration with stakeholders such as the ASF, to determine population numbers of striped bass in the Miramichi River, as well as the consumption rate of salmon smolts by striped bass. DFO explained that it is adequately resourced, but that conducting scientific research “takes a village,” stating:

We're now working in broad collaboration with experts in the academic community and other communities to bring the resources to bear—mostly the intellectual capacity—to be able to tackle these questions.<sup>33</sup>

While some organizations such as the ASF believe that DFO adequately funds research on the species, other witnesses including Chief George Ginnish of the Eel Ground First Nation noted that his First Nation has been requesting funding for an Indigenous knowledge study as they continue to develop their commercial fishery.<sup>34</sup>

The Committee believes that more research is required in order fully understand the striped bass population of the SGSL to provide local residents, stakeholders and the Eel Ground First Nation with complete information and to determine future trends. The Committee also calls on DFO to continue to make the results of its studies available to Canadians. Therefore, the Committee makes the following recommendations:

#### **Recommendation 5**

**That Fisheries and Oceans Canada invest more resources to obtain better data on the striped bass numbers and life cycle as well as how it is affected by climate change.**

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33 Doug Bliss, Regional Director, Science, Gulf Region, Fisheries and Oceans Canada, *Evidence*, 1 April 2019.

34 Chief George Ginnish, Chief Executive Officer, North Shore Mi'gmaq District Council, Eel Ground First Nation, *Evidence*, 1 April 2019.



## Recommendation 6

**That Fisheries and Oceans Canada commit to transparent and timely publication of all research and data related to striped bass, including rationale for decisions made on striped bass management and other decisions regarding the Miramichi ecosystem, and that this information is made readily available to the public, and explained to all local stakeholders.**

## Consultation and Co-Management

The Committee heard calls for DFO to exercise a nimble and responsive approach to the management of the Miramichi River ecosystem, as it relates to the striped bass population. This approach should entail greater meaningful consultation with stakeholders, including First Nations, to facilitate the co-management of the ecosystem.

While some organizations, such as the Miramichi Striper Cup, have cooperative relationships with DFO, the Committee heard that too often, local and traditional knowledge has been ignored by DFO in their decision-making process. Chief George Ginnish expressed frustration with the lack of inclusion of Indigenous traditional knowledge in the management process noting:

We would say that absolutely traditional knowledge is a requirement of management. We've been preaching co-management to DFO for many years. We're always promised to be part of that decision-making process. That hasn't happened.<sup>35</sup>

Jeff Wilson, who noted that he had a generally cooperative relationship with DFO, nevertheless explained that information on striped bass is insufficient, and that not enough information is shared with the advisory committees that he sits on.<sup>36</sup> Martin Mallet agreed but added that “a multi-stakeholder approach is important, but better listening to the science and better science should be number one.”<sup>37</sup>

Deborah Norton, whose organization has a memorandum of understanding with DFO and the Government of New Brunswick to co-manage the watershed, reiterated that she would still like to see greater participation in the process. She explained that at consultation sessions with DFO, organizations have only three minutes to present their positions, which she noted was less than the time allotted to opening statements at a parliamentary

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35 Chief George Ginnish, Chief Executive Officer, North Shore Mi'gmaq District Council, Eel Ground First Nation, [Evidence](#), 1 April 2019.

36 Jeff Wilson, Co-host and Founder, Miramichi Striper Cup, [Evidence](#), 25 February 2019.

37 Martin Mallet, Executive Director, Maritime Fishermen's Union, [Evidence](#), 25 February 2019.



committee.<sup>38</sup> John Bagnall explained that his organization has proposed the development of a fisheries liaison committee to facilitate communication and consultation.<sup>39</sup>

DFO reiterated its own commitment to working with local communities to manage aquatic resources, with Serge Doucet, the Regional Director General for the Gulf Region stating that:

Entire communities are built around those industries and they expect us at DFO to help protect and manage the resource. To that effect, one-third of our workforce is dedicated to science. Our scientists work in labs, conduct surveys in the field or do research on various species, marine protected areas or species at risk. Ongoing consultation and engagement with our partners from fishing communities, industry and first nations allow us to make the right decisions based on scientific data and facts.<sup>40</sup>

DFO also reiterated that consultations happen with at least a few weeks' notice and that the results of its recreational advisory councils are always published online. Mark Hambrook explained however, that when he used to work for DFO in Prince Edward Island, he communicated with local community fish and game clubs at least once a week, but now he only receives calls from the Gulf Region recreational fisheries coordinator every few months.<sup>41</sup>

Given the concerns raised by local stakeholders, including recreational fishers, watershed managers and the Eel Ground First Nation, the Committee recommends:

#### **Recommendation 7**

**That traditional knowledge of First Nations, local stakeholders and stewards be part of the science-based decision-making through meaningful consultations, and that these consultations happen in their communities.**

#### **Recommendation 8**

**That Fisheries and Oceans Canada work to improve the timeliness of public notices regarding recreational angling of striped bass to ensure stakeholders and anglers are aware of the regulations as early as possible prior to the season opening.**

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38 Deborah Norton, President, Miramichi Watershed Management Committee Inc., *Evidence*, 1 April 2019.

39 John Bagnall, Chair, Fisheries Committee, New Brunswick Salmon Council, *Evidence*, 1 April 2019.

40 Serge Doucet, Regional Director General, Gulf Region, Fisheries and Oceans Canada, *Evidence*, 1 April 2019.

41 Mark Hambrook, President, Miramichi Salmon Association Inc., *Evidence*, 1 April 2019.



## First Nations Participation

The Committee heard from Chief George Ginnish about how his community is being excluded from the benefits provided by the increase in the striped bass population in the Miramichi River. He explained that when the striped bass population fell in the 1990s, the Eel Ground First Nation was asked to stop its FSC salmon fishery, and that the community complied voluntarily. He also shared how his community is among the poorest communities in New Brunswick, whose population lacks access to traditional foods such as striped bass and salmon. He stated that Eel Ground First Nation residents are “able to access ... the equivalent [of] one tablespoon per day when we look at all the moose and fish we're able to access as a community.”<sup>42</sup>

The lack of access to salmon caused by the need to recover the striped bass population also led to decreased access to economic opportunities, opportunities that presented themselves with the Supreme Court of Canada’s decision in *R. v. Marshall*, which recognized a treaty right to fish commercially for a “moderate livelihood.”<sup>43</sup> Chief Ginnish explained that closure of the salmon fishery led to a loss of “millions of dollars of investments that [were] occurring through *Marshall* decision agreements.”<sup>44</sup>

Chief Ginnish expressed frustration with DFO’s treaty implementation process as well as the Government of New Brunswick’s engagement on the file. He explained that while the striped bass population increased, his First Nation was still forced to wait to receive a commercial licence, and only be allowed to retain 2,000 striped bass as part of the FSC fishery. He explained that:

In New Brunswick, we have a trilateral treaty implementation table. That process has been ongoing for 12 years, and DFO has just come to the table within the last couple of years. We're very frustrated with the approach. It seems to be, “Let's drag this out; let's delay it; let's not really deal with the concerns of the people whose livelihood is that river.”<sup>45</sup>

In 2018, the first Indigenous commercial striped bass fishery was opened, with a total allowable catch (TAC) of 50,000 fish to be divided between a spring and fall fishing season. The TAC was allocated by DFO, with Chief Ginnish noting that he was not

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42 Chief George Ginnish, Chief Executive Officer, North Shore Mi’gmaq District Council, Eel Ground First Nation, *Evidence*, 1 April 2019.

43 *R. v. Marshall*, [1999] 3 S.C.R. 456 at para. 7.

44 Chief George Ginnish, Chief Executive Officer, North Shore Mi’gmaq District Council, Eel Ground First Nation, *Evidence*, 1 April 2019.

45 Chief George Ginnish, Chief Executive Officer, North Shore Mi’gmaq District Council, Eel Ground First Nation, *Evidence*, 1 April 2019.

“feeling the love” from DFO with respect to implementation of the principles of free, prior and informed consent. The licence for the first 25,000 fish arrived too late, and then combined with an early winter, the First Nation did not have much of an opportunity to exploit the TAC. Chief Ginnish called on DFO to allow the 50,000 TAC each spring to be exploited throughout the season.<sup>46</sup> The MFU however, recommended that DFO postpone the launch of a commercial striped bass fishery pending further study on the species.<sup>47</sup> The Committee recognizes the socio-economic importance that the striped bass fishery represents for the Eel Ground First Nation and recommends:

#### **Recommendation 9**

**That Fisheries and Oceans Canada prioritize First Nations food, social and ceremonial fishery when determining the striped bass catch.**

#### **Recommendation 10**

**That the First Nation commercial fishery be given a full annual allotment of striped bass at the beginning of the spring fishing season.**

#### **Recommendation 11**

**That Fisheries and Oceans Canada ensure licences are granted on time to the First Nations to ensure they can legally operate a commercial fishery each year.**

### **Predator Control and Protection of Wild Atlantic Salmon**

The Committee heard that the increased striped bass population has led to pressure on the recovery of wild Atlantic salmon, particularly the survival of salmon smolts in the Miramichi estuary.

Bill Taylor of the ASF cited an ASF peer reviewed smolt tracking study over the last 14 years, which found that on the Restigouche and Cascapédia Rivers, smolt survival was relatively stable, ranging between 70% and 95%, while on the Miramichi River, the survival rate plummeted from around 70% to 8% between 2010 and 2017, which coincides with the increase in the striped bass populations.<sup>48</sup> Another ASF study, using

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46 Chief George Ginnish, Chief Executive Officer, North Shore Mi'gmaq District Council, Eel Ground First Nation, *Evidence*, 1 April 2019.

47 Maritime Fishermen's Union, *Brief*, 25 February 2019.

48 Bill Taylor, President and Chief Executive Officer, Atlantic Salmon Federation, *Evidence*, 1 April 2019.



acoustic telemetry, however, puts the predation rate of smolts by striped bass in the Miramichi River at between 2% and 20%.<sup>49</sup>

All witnesses agreed that striped bass are a carnivorous fish and an opportunistic predator, but the level of concern regarding predation on wild Atlantic salmon varied. The MFU stated that the striped bass is not a concern for commercial fishers in the Gulf region but recommended that DFO continue to study the effect of striped bass population increases on smelt and alewife stocks.<sup>50</sup> Bill Taylor of the ASF expressed deep concern for wild Atlantic salmon however, noting that:

Salmon populations throughout the north Atlantic face challenges, but predation by striped bass is by far the biggest threat right now. There are general declines, but if you look at the Miramichi compared with the Restigouche and Gaspé rivers, the north shore rivers or the Labrador and Newfoundland rivers, there is a general decline, but nowhere is that decline more pronounced than on the Miramichi.<sup>51</sup>

In January 2017, the Committee released a unanimous report entitled *Wild Atlantic Salmon in Eastern Canada* and made two recommendations directly related to striped bass predation, notably that DFO “allow a significant increase in the harvest of striped bass by the recreational fishery by lengthening the retention season and increasing catch limits, where striped bass populations warrant it,” and “investigate the opportunity for a First Nations striped bass commercial fishery.”<sup>52</sup>

While DFO states that both recommendations were implemented, the Committee heard that stakeholders disagree. Deborah Norton stated that “to my knowledge none of the recommendations have gone anywhere.”<sup>53</sup> Chief George Ginnish asserted that “good recommendations haven't been implemented.”<sup>54</sup> Bill Taylor remarked that there has been “some action on some of the recommendations, but far too few,” especially with respect to the striped bass. He went on to state that:

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49 Jason Daniels et al., “Estimating consumption rate of Atlantic salmon smolts (*Salmo salar*) by striped bass (*Morone saxatilis*) in the Miramichi estuary using acoustic telemetry,” *Canadian Journal of Fisheries and Aquatic Science*, Vol. 75, 1811-1822, 2018.

50 Maritime Fishermen’s Union, *Brief*, 25 February 2019.

51 Bill Taylor, President and Chief Executive Officer, Atlantic Salmon Federation, *Evidence*, 1 April 2019.

52 FOPO, *Wild Atlantic Salmon in Eastern Canada*, Fifth Report, 1<sup>st</sup> Session, 42<sup>nd</sup> Parliament, January 2017.

53 Deborah Norton, President, Miramichi Watershed Management Committee Inc., *Evidence*, 1 April 2019.

54 Chief George Ginnish, Chief Executive Officer, North Shore Mi’gmaq District Council, Eel Ground First Nation, *Evidence*, 1 April 2019.

If the Department of Fisheries and Oceans had the resources and the will to implement all 19 recommendations, that would go a long way to at least slowing the salmon's decline and hopefully beginning the recovery process.<sup>55</sup>

The Committee agrees with the witnesses who appeared before it and calls on DFO to fully implement the recommendations set out in its report on wild Atlantic salmon. Unfortunately, the Minister of Fisheries, Oceans and the Canadian Coast Guard was unavailable to appear before it on this study but the Committee looks forward to engaging with the Minister going forward with respect to the Government's responses to its recommendations.

While the increased striped bass population was the focus of the Committee's study, concerns were also expressed about other aquatic predators including the smallmouth bass, an invasive species in Miramichi Lake, which threatens to enter the Miramichi River.<sup>56</sup> The Committee recognizes that the introduction of smallmouth bass would be catastrophic for salmon parr and encourages DFO to approve the use of rotenone, a broad spectrum pesticide, to safely eradicate the species from Miramichi Lake. The Committee further reiterates its previous recommendation that DFO support a grey seal harvest program to reduce the threat of predation by grey seals on wild Atlantic salmon in the SGSL and Miramichi estuary.<sup>57</sup>

### **Recommendation 12**

**That other predators of Atlantic salmon be managed; specifically, the eradication of the invasive smallmouth bass from Miramichi Lake using the rotenone pesticide, and a sustainable harvest of the grey seal.**

## **CONCLUSIONS**

During its study, the Committee heard from a wide range of witnesses representing diverse interests and viewpoints. All witnesses agreed, however, that an ecosystem approach represents the way forward in addressing the challenges and opportunities presented by the recovered striped bass population in the SGSL and Miramichi River.

The Committee heard that DFO should engage affected communities to develop approaches that recognize the socio-economic importance of balancing a healthy striped bass population and the recovery of the iconic wild Atlantic salmon. Working with

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55 Bill Taylor, President and Chief Executive Officer, Atlantic Salmon Federation, *Evidence*, 1 April 2019.

56 Mark Hambrook, President, Miramichi Salmon Association Inc., *Evidence*, 1 April 2019.

57 FOPO, *Wild Atlantic Salmon in Eastern Canada*, Fifth Report, 1<sup>st</sup> Session, 42<sup>nd</sup> Parliament, January 2017.



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conservation groups, commercial and recreational fishers, and the Eel Ground First Nation represents a unique opportunity for DFO to promote economic development and tourism, rebuild native fish species and advance reconciliation. The Committee looks forward to working with DFO to achieve these goals.

## APPENDIX A LIST OF WITNESSES

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The following table lists the witnesses who appeared before the Committee at its meetings related to this report. Transcripts of all public meetings related to this report are available on the Committee’s [webpage for this study](#).

<b>Organizations and Individuals</b>	<b>Date</b>	<b>Meeting</b>
<b>Maritime Fishermen's Union</b> Martin Mallet, Executive Director	2019/02/25	133
<b>Miramichi Striper Cup</b> Jeff Wilson, Co-host and Founder	2019/02/25	133
<b>Atlantic Salmon Federation</b> Bill Taylor, President and Chief Executive Officer	2019/04/01	137
<b>Department of Fisheries and Oceans</b> Doug Bliss, Regional Director Science, Gulf Region Serge Doucet, Regional Director General Gulf Region	2019/04/01	137
<b>Eel Ground First Nation</b> Chief George H. Ginnish, Chief Executive Officer North Shore Mi’gmaq District Council	2019/04/01	137
<b>Miramichi Salmon Association Inc.</b> Mark Hambrook, President	2019/04/01	137
<b>Miramichi Watershed Management Committee Inc.</b> Deborah Norton, President	2019/04/01	137
<b>New Brunswick Salmon Council</b> John Bagnall, Chair Fisheries Committee John Pugh, President	2019/04/01	137





## APPENDIX B LIST OF BRIEFS

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The following is an alphabetical list of organizations and individuals who submitted briefs to the Committee related to this report. For more information, please consult the Committee's [webpage for this study](#).

**Maritime Fishermen's Union**

**New Brunswick Salmon Council**



# REQUEST FOR GOVERNMENT RESPONSE

Pursuant to Standing Order 109, the Committee requests that the government table a comprehensive response to this Report.

A copy of the relevant *Minutes of Proceedings* ([Meetings Nos. 133, 137, 142 and 146](#)) is tabled.

Respectfully submitted,

Ken McDonald  
Chair

