REPORT OF THE
THIRTY-SEVENTH
ANNUAL MEETING OF THE
NORTH AMERICAN COMMISSION

By Video Conference

1 – 5 June 2020

Chair: Patrick Keliher (USA)

Vice-Chair: Tony Blanchard (Canada)

Secretary: Emma Hatfield

NAC(20)11

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Report of the Thirty-Seventh Annual Meeting of the North American Commission of the North Atlantic Salmon Conservation Organization

By Video Conference

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1. Opening of the Meeting

1.1 The Chair, Patrick Keliher (USA), opened the meeting and welcomed delegates to the video conference.

1.2 The Chair noted that for the first time ever, NASCO's face-to-face Annual Meeting had been cancelled, due to the Covid-19 pandemic. Parties had agreed that NASCO's business would be conducted through inter-sessional correspondence, video conference and an inter-sessional meeting of the Council to be held in the autumn. He thanked all delegates for their flexibility and willingness to participate in this extraordinary year.

1.3 The Chair reminded participants that the period for inter-sessional correspondence had run from 8 May until 27 May. Members of the Commission had been able to use this time to consider the documents issued under each Agenda item and ask, and respond to, questions. The aim of this inter-sessional correspondence had been to streamline the work of the video conference to enable the members of the Commission to work as effectively as possible under the circumstances. An Annotated Agenda, NAC(20)05A, which includes the inter-sessional correspondence, was issued to all delegates on 31 May to help Commission members in their planning for the meeting. Where issues were raised during the inter-sessional correspondence period, they have been noted in this report and the correspondence can be found in full in Annex 1.

1.4 The Chair advised that there would be no verbal Opening Statements this year. Written Opening Statements were tabled by Canada and the United States. (Annex 2).

1.5 A list of participants at the Thirty-Seventh Annual Meetings of the Council and Commissions of NASCO is included as Annex 3.

2. Adoption of the Agenda

2.1 The Commission adopted its Agenda via correspondence on 8 May, NAC(20)05 (Annex 4).

3. Election of Officers

3.1 The Commission elected Kim Blankenbeker (USA) as its Chair and re-elected Tony Blanchard (Canada) as its Vice-Chair.

4. Review of the 2019 Fishery and ACOM Report from ICES on Salmon Stocks in the Commission Area

4.1 The Report of the ICES Advisory Committee (ACOM), CNL(20)10rev, that contains the scientific advice relevant to all Commissions was circulated in mid-May. ICES also made the Report of the Working Group on North Atlantic Salmon (WGNAS) available on the ICES website.

4.2 Discussion on this item was conducted during the inter-sessional correspondence period, NAC(20)12, (Annex 1). There was no further discussion during the video conference.

4.3 A representative of ICES, Martha Robertson, presented the ICES advice for all areas to Council, Commissions and all delegates in a webinar. Dr Robertson's presentation is available as document NAC(20)09 (Annex 5). The discussions held on the presentation during the webinar are contained in document CNL(20)53 (Annex 6).

5. Mixed-Stock Fisheries Conducted by Members of the Commission

5.1 Under the Council's 'Action Plan for taking forward the recommendations of the External Performance Review and the review of the 'Next Steps' for NASCO', CNL(13)38, it was agreed that there should be an agenda item in each of the Commissions to allow for a focus on mixed-stock fisheries.

5.2 Canada submitted paper NAC(20)07 which provided a description of the Labrador Subsistence Food Fishery, including information related to management, reported annual harvests, sampling of the fishery catches, and the origin and composition of the catches. The Chair reminded the Commission that the members of the Commission had agreed this is not a priority item for 2020.

5.3 Discussion on this item was conducted during the inter-sessional correspondence period (Annex 1). There was no further discussion during the video conference.

6. Sampling in the Labrador Fishery

6.1 Information on the sampling programme had been provided in both the ICES report and document NAC(20)07. The Chair reminded the Commission that the members of the Commission had agreed this is not a priority item for 2020.

6.2 Discussion on this item was conducted during the inter-sessional correspondence period (Annex 1).

6.3 The representative of the United States noted that during the inter-sessional correspondence period, Canada stated that there were additional analyses that could be conducted to further understand how effective the sampling program is in identifying rare events such as harvest of U.S.-origin salmon (these were the power analyses as well as identifying the proportion of samples coming from coastal versus estuarine regions for SFA 1A and SFA 2). The United States appreciated this offer and would strongly support that these analyses be done to provide further information as to whether U.S.-origin fish are being caught in the fishery.

6.4 The representative of Canada agreed to conduct these additional analyses as described in the inter-sessional correspondence.

6.5 The representative of the NGOs supported these analyses being conducted by Canada.

7. The St Pierre and Miquelon Salmon Fishery

7.1 The Chair referred the Commission to Council document CNL(20)24, which contained information on the management and sampling of the St Pierre and Miquelon salmon fishery. The Chair reminded the Commission that the members of the Commission had agreed that although this Agenda item is important business, and is also considered by the Council, it is not required annually.

7.2 Discussion on this item was conducted during the inter-sessional correspondence period

(Annex 1).

7.3 The representative of the United States reserved any additional comments to the Council video conference on this item.

8. Salmonid Introductions and Transfers

8.1 In 2010, it was agreed that the members of the Commission should provide focused annual reports to the Commission on issues of mutual concern including salmonid disease incidences, breaches of containment, introductions from outside the Commission area and transgenics (NAC(10)6).

8.2 The Chair noted that members had tabled annual reports (NAC(20)06 and NAC(20)08). The Chair reminded the Commission that the members of the Commission had agreed this is not a priority item for 2020. Issues were raised during the inter-sessional correspondence period related to these reports (Annex 1).

8.3 The representative of the United States stated that she understood that the Greig Placentia Bay project is still under review and has not yet been authorised. She clarified that during the inter-sessional correspondence period she was not requesting to see information that is not currently available but noted that a status update would be greatly appreciated. She said that the United States considers information about the project important and to be relevant to the work of the NAC and NASCO more generally, given the terms of the Williamsburg Resolution and the NAC protocols. The representative of the United States strongly encouraged Canada to consider including information on the project in its NASCO reporting in the future.

8.4 The representative of Canada acknowledged this comment.

8.5 The NGO representative noted that Canada's Annual Progress Report (CNL(20)44rev) stated that there were no reported escapes of farmed salmon in Newfoundland. He asked whether any farmed salmon had been detected at the DFO salmon counting fences in the south of Newfoundland.

8.6 The representative of Canada responded that no such salmon had been detected in 2019 from DFO counting fences in Newfoundland.

9. Announcement of the Tag Return Incentive Scheme Prize

9.1 The winner of the North American Commission £1,000 prize in the NASCO Tag Return Incentive Scheme was Roger F. Rubeor, New Hampshire, United States.

9.2 The winning tag was placed on a salmon returning to the Southwest Miramichi River (New Brunswick, Canada) in 2018. The fish was captured on 6 October 2018 at the estuary trap net in Millerton operated by Fisheries and Oceans Canada as part of the assessment program for Atlantic salmon in the Miramichi River. The fish was sampled for length, sex identification, scale sampled, and externally marked with a light blue Carlin tag prior to release back to the river. It measured 77.6 cm fork length and, based on external characteristics, the salmon was identified as a wild female salmon. Based on the interpretation of scales, it was a maiden two-sea-winter salmon, with a river age of two years. It was recaptured during the black salmon (kelt) recreational fishery on 25 April 2019 in the Southwest Miramichi River at a location locally known as Findley's Hole. It was subsequently released by the angler as there were mandatory catch and release measures in place for Atlantic salmon in 2019.

10. Recommendations to the Council on the Request to ICES for Scientific Advice

10.1 The North American Commission deferred any recommendations on the request to ICES for Scientific Advice to the Council, as the necessary information was not available at the time of the Commission meeting.

10.2 The request to ICES, as agreed by the Council, is contained in document CNL(20)13 (Annex 7).

11. Other Business

11.1 There was no other business.

12. Date and Place of the Next Meeting

12.1 The Commission agreed to hold its next Annual Meeting at the same time and place as the Thirty-Eighth Annual Meeting of NASCO.

13. Report of the Meeting

13.1 The Commission agreed its report of the Meeting.

14. Close of the Meeting

14.1 The Chair thanked the members of the Commission and observers for their contributions and closed the Thirty-Seventh Annual Meeting of the North American Commission.

Note. The annexes mentioned above begin after the French translation of the report of the meeting. A list of North American Commission papers is included in Annex 8.

NAC(20)11

Compte rendu de la trente-septième session annuelle de la Commission Nord-Américaine de l'Organisation pour la conservation du saumon de l'Atlantique Nord

Par vidéoconférence

1 – 5 juin 2020

1. Ouverture de la session

1.1 Le Président, Patrick Keliher (États-Unis), a ouvert la session et accueilli les délégués à la vidéoconférence.

1.2 Le Président a souligné que pour la toute première fois, la session annuelle en face-à-face de l'OCSAN avait été annulée du fait de la pandémie de Covid-19. Les Parties ont convenu que les affaires de l'OCSAN seraient menées via une correspondance en intersessions, par vidéoconférence et une réunion d'intersessions du Conseil qui aurait lieu à l'automne. Il a remercié tous les délégués pour leur flexibilité et leur disponibilité pour participer en cette année extraordinaire.

1.3 Le Président a rappelé aux participants que la période pour la correspondance en intersessions avait couru du 8 au 27 mai. Les membres de la Commission avaient été à même d'employer ce temps pour étudier les documents émis en vertu de chaque point d'ordre du jour et poser et répondre à des questions. L'objectif de cette correspondance en intersessions avait été de rationaliser le travail de vidéoconférence pour permettre aux membres de la Commission de travailler de façon aussi efficace que possible dans ces circonstances. Un ordre du jour annoté, NAC(20)05A, qui inclut la correspondance en intersessions a été remis à tous les délégués le 31 mai pour aider les membres de la Commission à planifier la session. Quand des questions ont été soulevées pendant la période de correspondance en intersessions, elles ont été notées dans ce rapport et l'intégralité de la correspondance se trouve en Annexe 1.

1.4 Le Président a annoncé qu'il n'y aurait pas de déclarations d'ouverture orale cette année. Des déclarations d'ouverture écrites ont été déposées par le Canada et les États-Unis. (Annexe 2).

1.5 Une liste des participants aux trente-septièmes sessions annuelles du Conseil et des Commissions de l'OCSAN est incluse en Annexe 3.

2. Adoption de l'ordre du jour

2.1 La Commission a adopté son ordre du jour par correspondance le 8 mai, NAC(20)05F.

3. Election des Membres du Bureau

3.1 La Commission a élu Kim Blankenbeker (États-Unis) en tant que Présidente et réélu Tony Blanchard (Canada) en tant que Vice-Président.

4. Examen de la pêcherie de 2019 et du rapport du Comité d'Avis du CIEM (ACOM) sur les stocks de saumons dans la zone de la Commission

4.1 Le rapport du comité d'Avis du CIEM (ACOM), CNL(20)10rev, qui contient les avis scientifiques pertinents pour toutes les Commissions a été mis en circulation à la mi-mai. Le CIEM a aussi rendu disponible le Rapport du Groupe de travail du Saumon de l'Atlantique Nord (WGNAS) sur le site du CIEM.

4.2 Une discussion sur ce point a été menée pendant la période de correspondance en intersessions (Annexe 1). Il n'y a pas eu davantage de discussion durant la vidéoconférence.

4.3 Une représentante du CIEM, Martha Robertson, a présenté les conseils du CIEM pour toutes les zones au Conseil, aux Commissions et à tous les délégués dans un webinaire. La présentation du Dr Robertson est disponible dans le document NAC(20)09 (Annexe 5). Les discussions ayant eu lieu sur la présentation pendant le webinaire se trouvent dans le document CNL(20)53 (Annexe 6).

5. Pêcheries de stocks mixtes menées par des Membres de la Commission

5.1 Selon le 'Plan d'action pour mettre en œuvre les conseils de l'étude externe des performances et la révision des 'Prochaines étapes' pour l'OCSAN', CNL(13)38, il était convenu qu'il devrait y avoir des points d'ordre du jour dans chacune des Commissions pour permettre de se concentrer sur les pêcheries de stocks mixtes.

5.2 Le Canada a soumis l'article NAC(20)07 qui a fourni une description de la pêcherie de subsistance du Labrador, y compris des informations relatives à la gestion, les récoltes annuelles déclarées, l'échantillonnage des prises de la pêcherie, et l'origine et la composition des prises. Le Président a rappelé à la Commission que les membres de la Commission avaient convenu que ceci n'est pas un point prioritaire pour 2020.

5.3 Une discussion sur ce point a été menée pendant la période de correspondance en intersessions (Annexe 1). Il n'y a pas eu davantage de discussion pendant la vidéoconférence.

6. Echantillonnage de la pêcherie du Labrador

6.1 Des informations relatives au programme d'échantillonnage ont été fournies aussi bien dans le rapport du CIEM que dans le document NAC(20)07. Le Président a rappelé à la Commission que les membres de la Commission avaient convenu que ceci ne constitue pas un point prioritaire pour 2020.

6.2 Une discussion sur ce point a été menée pendant la période de correspondance en intersessions (Annexe 1).

6.3 La représentante des États-Unis a noté que pendant la période de correspondance en intersessions, le Canada a déclaré que des analyses complémentaires pouvaient être menées pour mieux comprendre l'efficacité du programme d'échantillonnage pour identifier des occurrences rares telles que la récolte du saumon originaire des États-Unis (il s'agissait des analyses d'efficacité statistique ainsi que l'identification de la proportion d'échantillons venant des régions côtières par rapport aux régions estuariennes pour ZPS 1A et ZPS 2). Les États-Unis ont apprécié cette proposition et apporteraient un fort soutien à la réalisation de ces analyses pour fournir davantage d'informations sur la présence éventuelle de poisson originaire des États-Unis pris dans

la pêcherie.

6.4 Le représentant du Canada a accepté d'effectuer ces analyses supplémentaires décrites dans la correspondance en intersessions.

6.5 Le représentant des ONGs a apporté son soutien à la réalisation de ces analyses par le Canada.

7. Pêcherie de saumons à St Pierre et Miquelon

7.1 Le Président a renvoyé la Commission au document du Conseil CNL(20)24, qui contient des informations sur la gestion et l'échantillonnage de la pêcherie au saumon à St Pierre et Miquelon. Le Président a rappelé à la Commission que les membres de la Commission avaient convenu que, bien que ce point de l'ordre du jour soit une question importante et qu'il soit également examiné par le Conseil, ceci n'est pas requis tous les ans.

7.2 Une discussion sur ce point a été menée pendant la période de correspondance en intersessions (Annexe 1).

7.3 La représentante des États-Unis a réservé toute observation complémentaire à la vidéoconférence du Conseil sur ce point.

8. Introductions et transferts de salmonidés

8.1 In 2010, il a été convenu que les membres de la Commission devraient fournir à la Commission des rapports annuels ciblés sur les questions qui les concernent mutuellement y compris les cas de maladies chez les salmonidés, les ruptures de confinement, les introductions venant de l'extérieur de la zone de la Commission et la transgénique (NAC(10)6).

8.2 Le Président a indiqué que les membres avaient présenté des rapports annuels (NAC(20)06 et NAC(20)08). Le Président a rappelé à la Commission que les membres de la Commission avaient convenu que ceci ne constitue pas un point prioritaire pour 2020. Des questions relatives à ces rapports ont été soulevées au cours de la période de correspondance en intersessions (Annexe 1).

8.3 La représentante des États-Unis a déclaré qu'elle croyait comprendre que le projet Grieg de la baie Placentia était toujours à l'examen et n'avait pas encore été autorisé. Elle a précisé que pendant la période de correspondance en intersessions, elle ne demandait pas à voir des informations qui n'étaient pas actuellement disponibles mais a noté qu'une mise à jour de l'état serait grandement appréciée. Elle a dit que les États-Unis considèrent les informations de ce projet importantes et pertinentes pour les travaux de la CNA et plus généralement de l'OCSAN, compte tenu des termes de la Résolution Williamsburg et des protocoles de la CNA. La représentante des États-Unis a fortement encouragé le Canada à envisager à l'avenir d'inclure des informations sur le projet dans ses rapports à l'OCSAN.

8.4 Le représentant du Canada a pris note de ce commentaire.

8.5 Le représentant des ONGs a noté que le rapport de progrès annuel du Canada (CNL(20)44rev) indiquait qu'aucune fuite de saumon d'élevage n'avait été signalée à Terre-Neuve. Il a demandé si des saumons d'élevage ont été détectés aux barrières de dénombrement des saumons du MPO dans le sud de Terre-Neuve.

8.6 Le représentant du Canada a répondu qu'aucun saumon de ce type n'avait été détecté en 2019 aux barrières de dénombrement du MPO à Terre-Neuve.

9. Annonce du gagnant du prix du Programme incitatif au renvoi des étiquettes

9.1 Le gagnant du prix de la Commission Nord-américaine de £1,000 du Programme incitatif au renvoi des étiquettes de l'OCSAN est Roger F. Rubeor, New Hampshire, États-Unis.

9.2 L'étiquette gagnante a été appliquée à un saumon retournant dans la rivière Miramichi Sud-Ouest (Nouveau-Brunswick, Canada) en 2018. Le poisson a été capturé le 6 octobre 2018 dans l'estuaire au filet trappe de Millerton opéré par Pêches et Océans Canada dans le cadre du programme d'évaluation du Saumon atlantique dans la rivière Miramichi. La longueur, l'identification sexuelle, et les écailles ont été échantillonnées et le poisson a été marqué extérieurement avec une étiquette Carlin bleu clair avant qu'il ne soit relâché dans la rivière. Sa longueur de fourchette était de 77,6 cm et, sur la base de caractéristiques extérieures, le saumon a été identifié comme un saumon sauvage femelle. Sur la base de l'interprétation des écailles, il s'agissait d'un saumon dibermarin, dont l'âge en rivière était de deux ans. Il a été recapturé durant la pêcherie récréative des charognards le 25 avril 2019 dans la rivière Miramichi Sud-Ouest à un endroit localement connu sous le nom de Findley's Hole. Il a été ultérieurement relâché par le pêcheur, des mesures de pêche et remise à l'eau obligatoire étant en vigueur pour le Saumon atlantique en 2019.

10. Recommandations au Conseil concernant la demande de conseils scientifiques auprès du CIEM

10.1 La Commission nord-américaine a renvoyé toute recommandation sur la demande auprès du CIEM au Conseil, l'information nécessaire n'étant pas disponible au moment de la session de la Commission.

10.2 La demande auprès du CIEM, telle que convenue par le Conseil, est incluse dans le document CNL(20)13 (Annexe 7).

11. Divers

11.1 Aucune autre question n'a été soulevée.

12. Date et lieu de la prochaine session

12.1 La Commission a convenu que la prochaine session annuelle de la Commission aura lieu à la même date et au même lieu que la trente-huitième session annuelle de l'OCSAN.

13. Compte rendu de la session

13.1 La Commission a accepté un compte rendu de la session.

14. Clôture de la session

14.1 Le Président a remercié les membres de la Commission et observateurs pour leurs contributions et a clôturé la trente-septième session annuelle de la Commission nord-américaine.

Note. Une liste d'articles de la Commission nord-américaine est incluse en Annexe 8.

List of Annexes

Annex 1

NAC(20)12

North American Commission Inter-sessional Correspondence

The North American Commission's inter-sessional correspondence took place from 8 – 27 May. It is set out below, under the relevant Agenda item. If an Agenda item is not listed, no inter-sessional correspondence took place.

4. Review of the 2019 Fishery and ACOM Report from ICES on Salmon Stocks in the Commission Area

4.1 The representative of the United States noted that the United States continues to be concerned about the potential harvest of endangered U.S.-origin salmon in the Labrador fishery. She said that even small numbers of U.S. salmon harvested in Labrador could have significant impacts on U.S. stocks given their current low abundance. She noted that although the Labrador sampling program had not detected U.S. salmon in the catch since 2017, Canada had been sampling only a small fraction of the fishery (between 3% - 7% annually in recent years) and, of those samples, genetics processing has only been performed on a subsample. The representative said that the United States is concerned that this level of sampling may not be sufficient to adequately detect any U.S.-origin salmon that may be taken in the fishery, and adequate sampling is essential to know if management of the Labrador fishery is effectively minimizing harvests of U.S.-origin salmon. She noted that ICES has again recommended improved catch statistics and sampling of the Labrador fishery to improve information on, among other things, stock origin of harvested salmon.

4.2 The representative of the United States asked how Canada planned to respond to the ICES recommendation and improve the completeness and timely reporting of catch statistics from Labrador (and other areas of eastern Canada).

4.3 The representative of the United States thanked Canada for tabling its NAC report (NAC(20)08) and its mixed-stock fishery report (NAC(20)07). She said it was helpful that Canada's report on its mixed-stock fisheries contained more detailed information than in previous years. However, the issues and questions for Canada that the United States asked previously are not fully addressed in these reports, and the representative of the United States said she would very much appreciate a response to each.

4.4 The representative of Canada reported that the Labrador subsistence fisheries are managed using a number of measures including seasons, gear limits, and most importantly a maximum total allowable harvest based on carcass tagging (NASCO report NAC(20)07 Labrador mixed-stock fisheries).

4.5 He stated that harvests are reported by communities through logbooks issued to individual fishers or groups. Logbook return rates are relatively high and vary by community and user groups; individual group reporting rates were 68% to 100% in 2019 (74% overall for all logbooks). The representative of Canada noted that logbook return rates have improved in recent years through regular communication between Fisheries and Oceans Canada's (DFO) biologist working in Labrador and the user groups. DFO's biologist works directly with the user groups to ensure the data is complete and formatted for its application to the ICES and NASCO process.

4.6 The representative of Canada reported that for the other areas of eastern Canada, reporting rates of fisheries harvests vary by fishery. Recreational fisheries occur exclusively in freshwater and exploit single stocks. For the recreational fishery, the harvest (killing) of any Atlantic salmon is currently only permitted in Quebec, and Newfoundland and Labrador. He said that for Quebec, there is mandatory reporting of catches, within 48 hours of the harvest. In Newfoundland and Labrador, anglers are required to return a completed licence stub of annual fishing activities detailing catches and harvests by date and location. He reported low compliance of licence stub returns in Newfoundland and Labrador and, as a result, estimates of total harvests are obtained by raising declared catches to the total pool of licences. The representative of Canada said a mobile application has been developed to improve the recreational reporting rate and will be released for the 2020 fishery. He noted that the timely and complete reporting of catches from all fisheries was indicated as an area requiring improvement in the 'six tenets' evaluation of the fisheries completed by Canada in 2017.

5. Mixed-Stock Fisheries Conducted by Members of the Commission

5.1 The representative of the NGOs asked Canada when the relevant paper would be available. Canada tabled 'Labrador Subsistence Food Fisheries – Mixed-Stock Fisheries Context, NAC(20)07' on 20 May.

5.2 The representative of the United States noted that the United States continues to be concerned about the potential harvest of endangered U.S.-origin salmon in the Labrador fishery. She said that even small numbers of U.S. salmon harvested in Labrador could have significant impacts on U.S. stocks given their current low abundance. She noted that although the Labrador sampling program had not detected U.S. salmon in the catch since 2017, Canada had been sampling only a small fraction of the fishery (between 3% - 7% annually in recent years) and, of those samples, genetics processing has only been performed on a subsample. The representative said that the United States are concerned that this level of sampling may not be sufficient to adequately detect any U.S.-origin salmon that may be taken in the fishery, and adequate sampling is essential to know if management of the Labrador fishery is effectively minimizing harvests of U.S.-origin salmon. She noted that ICES has again recommended improved catch statistics and sampling of the Labrador fishery to improve information on, among other things, stock origin of harvested salmon.

5.3 The representative of the United States noted that Canada had been able to conduct genetics processing on only a subsample of all samples taken from the Labrador fishery due to resource constraints. She asked Canada what effect this is having on the understanding of contributing stocks to that fishery, in particular the contribution of United States-origin fish and other endangered populations, and on fishery management decisions.

5.4 In response, the representative of Canada stated that the goal of the Labrador subsistence fishery sampling program was to ensure that the samples reflect the characteristics of the entire harvest accurately. He reported that the sampling approach consists of random sampling throughout the duration of the fishing season that is stratified by communities throughout the geographic extent of the fishery. For the 2019 fishery, the temporal distribution of samples collected and the size of the fish sampled (small or large) was similar to that of the fishery (Figure 2 and Table 9 of the NASCO report NAC(20)07 Labrador mixed-stock fisheries).

5.5 He stated that the subsample analysed for genetics in 2019 was specifically selected

from the coastal areas (SFA 1A, 2) where interception of non-local stocks has been more prevalent in the past. There were 579 tissue samples collected from the fishery in this area and 423 of them were analysed for genetic origin (73%). From these analyses, 407 samples provided an origin result and only 10 samples were of non-Labrador origin (2.5%). These fish reported to three groups: two individuals to the Gulf of St. Lawrence, three to the St. Lawrence Lower North Shore and five to Northern Newfoundland. The representative of Canada reported that further to the genetic analyses, 581 scales samples (includes all of the 579 samples with tissue) from SFA 1A and two were interpreted for river age. There were no River Age 1 and only one River Age 2 salmon detected (0.2% of samples less than River Age 3).

5.6 The representative of Canada stated that in response to detections of two U.S.-origin salmon from samples in 2017, Canada undertook to change the fishing locations of some coastal fishing areas in southern Labrador in order to reduce the potential for interception of non-local origin salmon.

5.7 He stated that the combined information from genetic analyses and scale age interpretations present a simplified and less problematic description of the mixed-stock fishery context in Labrador than what is reported for the Greenland and St Pierre and Miquelon mixed-stock fisheries; those two fisheries exploit a large number of reporting groups from North America.

6. Sampling in the Labrador Fishery

6.1 The representative of the United States noted that the United States continues to be concerned about the potential harvest of endangered U.S.-origin salmon in the Labrador fishery. She said that even small numbers of U.S. salmon harvested in Labrador could have significant impacts on U.S. stocks given their current low abundance. She noted that although the Labrador sampling program had not detected U.S. salmon in the catch since 2017, Canada had been sampling only a small fraction of the fishery (between 3% - 7% annually in recent years) and, of those samples, genetics processing has only been performed on a subsample. The representative said that the United States are concerned that this level of sampling may not be sufficient to adequately detect any U.S.-origin salmon that may be taken in the fishery, and adequate sampling is essential to know if management of the Labrador fishery is effectively minimizing harvests of U.S.-origin salmon. She noted that ICES has again recommended improved catch statistics and sampling of the Labrador fishery to improve information on, among other things, stock origin of harvested salmon.

6.2 The representative of the United States noted that in 2019, approximately 18% of the total subsistence harvest was taken from coastal areas and 82% from estuaries. She asked Canada to provide a description of how the samples were distributed across coastal and estuarine areas within SFA 1A, SFA 1B (Lake Melville), SFA 2.

6.3 In response, the representative of Canada reported that all of the harvest and samples collected from SFA 1B (Lake Melville) are estuarine. He stated that the samples from SFA 1A and SFA 2 have not been described as coastal or estuarine, but that this task could be completed if necessary. The representative of Canada noted that coastal harvests have been reduced significantly from the past to avoid the harvest of non-Labrador salmon. However, he stated that this does not preclude the harvest of non-Labrador salmon in estuaries. Of the six U.S. salmon detected in the Labrador fishery from the 2006 to 2019 sampling years, five were harvested in an estuary and only one in a coastal area.

6.4 As stated above, the representative stated that Canada will undertake changes to fishing locations to avoid the harvest of U.S. salmon when such areas are detected through the sampling program.

6.5 The representative of the United States also asked whether Canada is considering improvements to its Labrador sampling program, such as expanding the percent of the fishery sampled, to increase the probability of detecting any endangered U.S.-origin salmon that may be in the catch and, if not, how we can be sure that the management actions taken for that fishery are minimising the harvest of U.S.-origin salmon?

6.6 The representative of Canada replied that Canada will continue to work with the Labrador subsistence fishery groups to ensure the sampling is representative of the harvest. The probability of detecting a U.S.-origin salmon in the Labrador fishery is inherently very low. He noted that based on the estimates of returns to each region of North America (data in ICES reports) over the past five years, annual combined returns of 1SW and MSW salmon to U.S. rivers equalled 0.2% to 1.1% of the total returns of salmon to Labrador. Hence, in terms of relative abundance, the expectation is that U.S.-origin salmon would represent, at most, the same order of magnitude in the fishery i.e. 1% or less.

6.7 The representative of Canada reported that based on the timing of the U.S. salmon returns and the Labrador fishery, the probability of harvesting U.S.-origin salmon in the Labrador fishery is even further reduced. He stated that a power analysis of the number of samples required to detect such rare events (ex. range of 0.01%, 0.05%, 0.1% U.S.-origin salmon) and to estimate the total harvest of U.S. fish (ex. < 5, < 10, …) for various harvest levels in the Labrador fishery could be done, if desired, and reported to Parties in the near future.

6.8 The NGO representative referred to the ICES WGNAS report which identified that sampling of mixed-stock fisheries, including those in Canada, could be improved. He noted that ICES identifies that approximately 15% of the catch by number in 2019 at Greenland were examined; for St Pierre and Miquelon this value was approximately 13% and for Labrador 7%. Even at a 15% sampling rate, the ICES WGNAS report recommends expanding the sampling programme at Greenland to provide improved spatial and temporal coverage to estimate continent and region of origin and biological characteristics more accurately. He stated that at 7% there is a significant need for improvement at Labrador.

6.9 The NGO representative requested information to better understand the specific areas that are in need of improvement in Labrador. The NGO representative requested further details (that are not available within the ICES WGNAS Report) on the size of the subsistence fishery in Labrador (including salmon bycatch in the trout net fishery) by size category by Salmon Fishing Area, and the sampling that occurred for each of these components of the fishery. He also requested details of numbers of subsamples taken for genetic analysis.

6.10 The representative of Canada responded that the details requested would be available in the report on the Labrador Fishery which would soon be available.

6.11 After this report was issued, the representative of the NGOs thanked Canada for tabling documents NAC(20)07 (Labrador Subsistence Food Fisheries) and NAC(20)08 (Annual Report). However, he noted that the Labrador Fishery document answered most, but not all, of the NGO questions. The representative of the NGOs stated that he had previously referenced the need for improved sampling of these fisheries at Labrador

as identified by ICES, and also that, even at a 15% sampling rate, ICES was recommending improvements needed in the Greenland sampling.

6.12 From Canada's paper NAC(20)07, the representative of the NGOs noted that sampling rate overall for genetics to identify stock origins was 3.8% of the catch in all of Labrador and was as low as 3.7% of the catch of large salmon in SFA 2 (Table 9) where there may be expectation of some interception of salmon from areas outside of Labrador. Where there is less likelihood of interception of non-Labrador salmon in Lake Melville, the sampling rate to determine genetic origin was as low as 1.0% for large salmon (as result of subsampling, as tissue samples available were about 4% of large salmon catch in this area).

6.13 The NGOs also noted there was a tendency to under-sample the large salmon component of the fishery in two of the areas: In SFA 1 (Lake Melville), large salmon accounted for 54% of the catch and 47% of the samples and in SFA 2 large salmon accounted for 34% of the catch yet only 16% of the samples (In SFA1, these percentages were about the same, at 65% and 64% respectively).

6.14 The representative of the NGOs stated that it is likely that few salmon destined to return to home rivers outside of Labrador would be returning as grilse (maturing 1SW) and therefore that non-local Labrador salmon in the 1SW category would be non-maturing (destined for another year at sea if they were not caught). In this way, they are similar to the salmon taken at Greenland at 1SW age (about 2.5-3.0 kg and likely in the large salmon category) and destined to return as 2SW salmon. The representative of the NGOs asked the following questions:

a) Concerning the scale analysis where it is stated that 70% of the sampled scales examined were 1SW, the NGOs would be interested to know if it is possible from the scale analysis to determine what portion of the 1SW salmon were maturing and what portion were not?

6.15 The representative of Canada replied that purely from scale analysis, no, it is not possible. Using a combination of fork length (> 63 cm) and sea age (1SW), they could speculate on whether a 1SW fish is non-maturing (would spend an extra year at sea). However, they do get a few maturing 1SW maiden salmon in the large salmon category in the Miramichi so this approach would not be ideal.

b) What portion of the 1SW salmon (determined by scale analysis) were from the small salmon category and what portion were from the large salmon category?

6.17 The representative of Canada replied that 96.3% of the 1SW salmon were from the small category and 3.7% from the large category and provided more detailed data:

Labrador subsistence fisheries samples summary

	Maiden Sea Age				
	1SW	%1SW	2SW	%2SW	Total
Small Salmon	593	99.2	5	0.8	598
Maiden	575	96.2	4	0.7	
Repeat	18	3.0	1	0.2	
Large Salmon	23	9.9	210	90.1	233
Maiden	8	3.4	200	85.8	
Repeat	15	6.4	10	4.3	
Total	616		215		831
%Small Salmon	96.3%				
%Large Salmon	3.7%				
Maiden 1SW	583	70.2			
Maiden 2SW	204	24.5			
Repeat	44	5.3			
Total	831				

c) What analysis has Canada done to determine whether the sampling program is sufficiently powerful to estimate the catch of non-Labrador origin salmon with an acceptable level of confidence?

6.18 The representative of Canada replied that Canada has not conducted this analysis but could add this to the tasks for the 2021 ICES WGNAS meeting.

d) Is Canada going to take any steps in 2020 to improve the sampling rate for the Labrador subsistence fisheries as well as consider steps to improve sampling to be representative of the catch?

6.19 The representative of Canada replied that the goal of the Labrador subsistence fishery sampling program is to ensure that the samples reflect the characteristics of the entire harvest accurately. The sampling approach consists of random sampling throughout the duration of the fishing season that is stratified by communities throughout the geographic extent of the fishery. For the 2019 fishery, the temporal distribution of samples collected and the size of the fish sampled (small or large) was similar to that of the fishery (Figure 2 and Table 9 of the NASCO report NAC 20/07 Labrador mixed-stock fisheries).

6.20 He stated that Canada will continue to work with the Labrador subsistence fishery groups to ensure the sampling is representative of the harvest.

e) Resource constraints in 2019 were identified for the genetic sampling and requiring subsampling; how will this issue be addressed for sampling and analysis in 2020?

6.21 The representative of Canada replied that the federal government of Canada has provided funding on an annual basis through grants to Dr Bradbury. Funding has been secured for 2020 to analyse Labrador subsistence fisheries samples. Depending on the number of samples collected, subsampling may be required.

6.22 Under this funding allocation Dr Bradbury will also develop '*amplicon based SNP panels which will increase the biological information obtained (i.e., sex, age at maturity), and both reduce cost and time required for the analysis…. will develop sequencing based assays to collect data on 96 baseline SNPs and test these assays on the newly purchased MISEQ DNA sequencer in the DFO NL Region*.' This new method may make conducting genetic origin analyses of salmon less expensive and more

efficient in future years.

6.23 He stated that the subsample analysed for genetics in 2019 was selected specifically from the coastal areas (SFA 1A, 2) where interception of non-local stocks has been more prevalent in the past. There were 579 tissue samples collected from the fishery in this area and 423 of them were analysed for genetic origin (73%). From this analysis, 407 samples provided an origin result and only 10 samples were of non-Labrador origin (2.5%). These fish reported to three groups: 2 individuals to the Gulf of St. Lawrence, 3 to the St. Lawrence Lower North Shore and 5 to Northern Newfoundland.

6.24 Further to the genetic analyses, 581 scales samples (includes all of the 579 samples with tissue) from SFA 1A and 2 were interpreted for river age. There were no River Age 1 and only one River Age 2 salmon detected (0.2% of samples less than River Age 3).

6.25 The representative of Canada concluded that the combined information from genetic analyses and scale age interpretations present a simplified and less problematic description of the mixed-stock fishery context in Labrador than what is reported for Greenland and Saint Pierre and Miquelon mixed-stock fisheries; those two fisheries exploit a large number of reporting groups from North America.

7. The St Pierre and Miquelon Salmon Fishery

7.1 The representative of the United States noted appreciation for the report provided by France (in respect of St Pierre and Miquelon) on the outcome of its 2019 fishery but that the United States continues to be concerned about the potential harvest of endangered U.S.-origin salmon in the St Pierre and Miquelon fishery, as even small harvests of U.S.-origin salmon in that fishery could have significant impacts on United States stocks given their current low abundance. The representative of the United States noted concern that the sampling design for the St Pierre and Miquelon fishery is not sufficient to detect endangered salmon populations adequately, including those of U.S.-origin, that may be taken there. She also noted that ICES has again recommended improved catch statistics and sampling of the St Pierre and Miquelon fishery to improve information on, among other things, stock origin of harvested salmon. With this in mind, the representative of the United States asked a number of questions of France (in respect of St Pierre and Miquelon).

7.2 First, the representative of the United States noted that catches in the 2019 St Pierre and Miquelon fishery were very similar to those reported for 2018. Last year, France (in respect of St Pierre and Miquelon) reported this was due to a reduction in effort by commercial fishermen as they were targeting other species and to poor weather affecting recreational catches. The representative of the United States asked if this was the case again this year or whether something else affected catches?

7.3 The representative of France (in respect of St Pierre and Miquelon) confirmed that professional fishermen's effort was significantly reduced because at that time of the year, most of them are busy targeting other species (snowcrab and lobster). She reported that weather was average in the 2019 season, with 11 days of strong wind in June (the month with the highest recorded catches).

7.4 Second, the representative of the United States asked what management measures were in place for the 2020 St Pierre and Miquelon fishery and whether catch and / or effort limits have been set.

7.5 The representative of France (in respect of St Pierre and Miquelon) reported that there should not be substantial changes to management measures in 2020 compared to 2019.

She said that there has been a change of person in the position of Head of Maritime Affairs in the summer of 2019 and that he or the relevant staff from St Pierre and Miquelon would aim to attend the NAC and Council meetings, together with Herlé Goraguer (Ifremer).

7.6 Third, in line with ICES advice, the representative of the United States asked what steps were being taken to improve the completeness and timely reporting of detailed catch statistics on the St Pierre and Miquelon fishery to ICES, such as the proportion of large versus small salmon in the total catch and other catch characteristics.

7.7 The representative of France (in respect of St Pierre and Miquelon) replied that it would be possible to provide ICES with the catch statistics next March via the French representative to the WGNAS (Mathieu Buoro), and that from 2020 onwards, the proportion of small versus large salmon would be detailed. She reported that the percent of small salmon (<63cm) in the total catch was calculated (66.5%) and included in the St Pierre and Miquelon Annual Report, but too late for the WGNAS meeting because of a few late logbook returns (health-related). She also reported that 66.5% in the total catch is consistent with 70% small in the 63 salmon sample (WGNAS report). She noted that in previous years the percentage in the sample was as much as 92% because there was a gap when Herlé Goraguer was away on the first week of June for the NASCO meeting – a time when more large salmon were present. She added that several volunteers were now contributing.

7.8 Fourth, the representative of the United States asked what steps France (in respect of St Pierre and Miquelon) are taking to address the ICES recommendations to provide improved sample characteristics to allow ICES to better characterise the impact of the fishery on contributing stocks and to ensure it is representative of all aspects of the fishery across the fishing season into the future.

7.9 The representative of France (in respect of St Pierre and Miquelon) referred to the response above that from 2020 onward, the detailed sampling scheme across the whole fishing season would be available via the French representative to the ICES WGNAS.

7.10 Finally, the representative of the United States asked whether France (in respect of St Pierre and Miquelon) has given additional consideration to the question of joining NASCO. The representative of the United States encouraged France (in respect of St Pierre and Miquelon) to do so.

7.11 The representative of France (in respect of St Pierre and Miquelon) reported that for now, France wishes to retain its observer status to NASCO and continues, as previously committed, co-operation with NASCO, its members and the scientific community.

8. Salmonid Introductions and Transfers

8.1 The representative of the United States noted that in 2019 there was no update included in Canada's report to the NAC on the status of the Greig / Placentia Bay aquaculture project. As discussed in 2019, the United States considers information on this initiative to be relevant to the NAC and the broader work of NASCO under the Williamsburg Resolution. The United States requested that Canada include all relevant information on the project in its report to the NAC or provide an update to the Commission through other written means prior to the 2020 NAC video conference.

8.2 The representative of Canada recognised the desire for information on this particular project in Canada. He reported however, that since this project is still under regulatory review by the legislative authority, the Province of Newfoundland & Labrador, it would

not be appropriate for Canada to discuss or share details of an individual project at an international forum. He stated that progress and updates on the Government of Newfoundland and Labrador's aquaculture management under Article 5 of the Williamsburg Resolution to minimize the impacts of aquaculture and introductions and transfers can be found in the 2019 Annual Progress Report. The information that is available on the project in question can be found online at the Government of Newfoundland and Labrador's website.

8.3 After review of papers NAC(20)06 (Annual Report, tabled by the United States) and CNL(20)27 (Annual Progress Report: United States) the representative of Canada asked the representative of the United States a number of questions. The representative of the United States noted that these questions do not reference any particular agenda item and some appear to be outside the context of the NAC (and perhaps NASCO more broadly) or are regarding topics that have been deferred for future discussions. Nevertheless, for the sake of transparency, she provided a response. She stated that given the short time available to develop a response, the answers are brief. The representative stated that the United States looks forward to discussing those issues below that are related to the U.S. APR at the fall inter-sessional meeting or in 2021, as appropriate. She also suggested that a discussion between respective aquaculture experts could be beneficial to provide clarity and co-ordination on aquaculture management in their respective countries.

8.4 First, representative of Canada noted that the United States 2019 Annual Progress Report provides information on sea lice and containment for aquaculture operations in Maine. Since the U.S. plan is to expand aquaculture operations as outlined in the Executive Order (from May 2020), the representative of Canada asked what is envisioned for the regulation of sea lice and containment in other states on the East Coast.

8.5 The representative of the United States reported that NOAA is committed to fostering responsible aquaculture that provides safe, sustainable seafood; creates employment and business opportunities in coastal communities; and complements NOAA's comprehensive strategy for maintaining healthy and productive marine populations, ecosystems, and vibrant coastal communities. Fish health, including management of disease and parasites, as well as containment, will be important considerations in any permitting of aquaculture facilities along the U.S. East Coast. Any aquaculture facility that requires a Federal authorisation or permit will need to be reviewed under the provisions of section 7 of the U.S. Endangered Species Act which provides a mechanism to minimise any such project's effects on wild Atlantic salmon and other protected species. Sea lice management and containment remain high priorities for the United States. They anticipate that regulations regarding fish health, fish transfers, and monitoring fish culture activities for good husbandry practices to minimise the spread of pathogens and parasites will be an integral part of any expansion of the aquaculture industry in the United States.

8.6 Second, the representative of Canada understood that aquaculture is managed at both the state and federal level in the United States. He asked what processes are in place to ensure consistency between management and regulations across the states, between states and the National Oceanic and Atmospheric Administration (NOAA), and across different offices at NOAA.

8.7 The representative of the United States replied that NOAA's Office of Aquaculture addresses regulatory and policy issues as they relate to marine aquaculture in the United

States. The purpose of this effort is to enable domestic aquaculture production within the context of NOAA's marine stewardship responsibilities, which include the protection of the marine environment while balancing multiple uses of coastal and ocean waters. NOAA is committed to a number of measures associated with marine aquaculture including: improving regulatory efficiency and certainty through federal co-ordination and facilitating regulatory efficiency and cross-agency reviews and actions for federal permitting of aquaculture while also supporting aquaculture projects that improve water quality, fish production, habitat, and coastal economies. While individual projects may require permits from both State and Federal agencies, these permitting processes are coordinated to the maximum extent practicable to minimise the potential for conflicting requirements. Further, in many cases, the States are implementing permitting programs that have been delegated to a State from a Federal agency (e.g. most states are delegated authority from the U.S. Environmental Protection Agency to implement aspects of the Clean Water Act, including the issuance of permits under the National Pollutant Discharge Elimination System program). The U.S. representative noted that she would be happy to discuss aquaculture permitting with Canada in more detail. She noted that at this time, the U.S. does not anticipate any marine based aquaculture of Atlantic salmon outside of the Gulf of Maine.

8.8 Also, for consistency and management of state regulations in regard to fish health, the Northeast Fish Health Committee is charged with co-ordinating fish health management activities amongst Northeast Association of Fish and Wildlife Agencies' member states. The Northeast Association of Fish and Wildlife Agencies' states include the following jurisdictions: Connecticut, Delaware, Pennsylvania, New York, Maine, Maryland, New Hampshire, West Virginia, Virginia, District of Columbia, New Jersey, Rhode Island, Vermont, Massachusetts and federal agencies with natural resource mandates, including National Marine Fisheries Service, and United States Fish and Wildlife Service. The Committee serves under the auspices of the NEAFWA Northeast Fisheries Administrators Association. Co-ordination efforts are primarily through reviewing current issues and providing recommendations. A main focus has been the development of the Northeast Fish Health Guidelines. The Committee's main goals are:

- to assess current issues related to fish health and disease,
- to encourage information exchange amongst fishery professionals on the importance of fish health, and
- to recommend relevant, attainable, and practical approaches to fish health management.

8.9 Third, the representative of Canada noted that in September 2019, there was an animal welfare incident at a Cooke aquaculture facility in Maine where there appeared to be a mistreatment of salmon with possible fish health issues. He asked the representative of the United States to speak to the sanctions and processes that NOAA followed to manage this incident, and why charges or fines were issued. He also asked whether there are any expected changes to fish health management as a result of this animal welfare incident.

8.10 The representative of the United States replied that in June 2019, the State of Maine received hidden camera video from a group called Compassion Over Killing that was reportedly from a Cooke Aquaculture facility in Maine. According to the accompanying complaint, fish were mishandled as culling or euthanisation was attempted. This incident was investigated by the agency with jurisdiction over the matter, the State of

Maine's Department of Agriculture, Conservation and Forestry. A copy of the State's report was provided to Canada via e-mail on May 19, 2020. This report outlines the State's findings and decisions regarding charges and fines. As noted in that report, the State agency made a number of recommendations. It is the understanding of the representative of the United States that, as described in that report, modifications were made at the facility regarding training and procedures for culling fish.

8.11 Finally, the representative of Canada asked the United States to share the sequence information of the HPR-deleted strain of ISAv that was detected, as the Canadian Food Inspection Agency is interesting in cross-referencing it with other ISAv sequences in its database.

8.12 The representative of the United States replied she has obtained the requested information and will provide the file directly to Canada via a separate email.

8.13 The representative of the NGOs thanked Canada for tabling documents NAC(20)07 (Labrador Subsistence Food Fisheries) and NAC(20)08 (Annual Report) and noted that Canada, under item 2 of its Annual Report, reports five incidents of aquaculture rainbow trout escapes in Nova Scotia in 2019. The representative of the NGOs asked Canada to provide further information on the geographic locations of these escape events.

8.14 The representative of Canada replied that of the five escape events reported for Nova Scotia in 2019, three were at a location in Cape Breton and two were at a location in Yarmouth County.

Annex 2

Opening Statement to the North American Commission submitted by Canada

With the exception of some areas in Labrador, Atlantic salmon stocks in eastern Canada continue to show long-term declines over the past 40 years despite continued support by the Government of Canada, provincial governments and local jurisdictions with habitat conservation programs and increasingly restrictive fisheries management measures, including reduced or eliminated retention limits in recreational fisheries and reduced harvests in Indigenous fisheries.

Domestically, Canada has demonstrated a strong commitment to wild Atlantic salmon conservation both from a policy and an investments perspective. The federal 2019-21 Wild Atlantic Salmon Implementation Plan was completed in 2019 and guides priority actions for Fisheries and Oceans Canada. We are confident by working with other levels of government and stakeholders that progress can be made to stop the declining trends and rebuild wild Atlantic salmon populations.

In Canada, the sale of wild Atlantic salmon is prohibited, which recognizes the value of this resource to the Indigenous communities and in the recreational fishery and avoids an incentive for illegal harvest.

In 2019 Canada modernized its *Fisheries Act* to prioritize rebuilding of fish populations and incorporate modern safeguards so that fish and fish habitats are protected for future generations, and fisheries can continue to grow the economy and sustain coastal communities. Investments of $284 million to support implementation of the revised *Act* will add to existing efforts to conserve and protect fish and fish habitat, including Atlantic salmon.

Harvests in Indigenous food, social and ceremonial fisheries of Quebec and the Maritime provinces (Nova Scotia, New Brunswick, Prince Edward Island) occur in rivers and estuaries. In Labrador although coastal fisheries are allowed subsistence food fisheries (Indigenous and resident) are mainly located in bays generally inside the headlands.

Canada recognizes the concern regarding the mixed stock fisheries in Labrador. The Labrador subsistence fisheries conducted by Indigenous peoples and residents of Labrador produced catches in 2019 of 37.8 t, a slight increase over previous years. We are encouraged by the sampling results of the 2019 Labrador fishery indicating that, as in the previous year, more than 98% of the salmon captured in this fishery were from local Labrador rivers, and that there was no indication of the interception of endangered US or endangered Canadian salmon from the southern Maritime provinces in the fishery. That being said, we will continue to work with the Provincial Government, Indigenous governments and communities in Labrador to further ensure that the fisheries management regime aligns with the guidelines agreed to at NASCO regarding reporting, managing the extent of mixed stock fisheries, and fishing on stocks that meet their conservation limits.

While aquaculture production of Atlantic salmon and other salmonids in eastern Canada is relatively small in the North Atlantic and global context, it is of high economic value and there is interest in further expansion in eastern Canada. The Government of Canada supports these initiatives, which provide important economic benefits to rural and coastal communities, while actively working with the industry to ensure that there is appropriate oversight, effective regulations, and collaborative management to protect the equally highly valued wild Atlantic salmon resource that is critically important to the Indigenous peoples and communities in eastern Canada.

The importance of this NAC meeting continues to be reinforced by the situation facing many of our salmon stocks in Canada and the United States. In terms of work carried out under the framework of the North American Commission, Canada would like to thank the United States for its 2019 NAC Report. We look forward to working together to ensure both Canadians and Americans continue to enjoy the cultural, social and economic benefits of Atlantic salmon for generations to come.

Thank you

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Opening Statement to the North American Commission submitted by the United States

Chair Keliher, Secretary Hatfield, Assistant Secretary Kenyon, distinguished delegates, ladies, and gentlemen:

The United States appreciates the exchange that has already occurred between members of the Commission in support of the 2020 North American Commission meeting, which, in this extraordinary year, is being undertaken by video conference. We look forward to continuing discussions about the effectiveness of the measures in place for the monitoring and control of the mixed-stock fisheries in Labrador and St. Pierre and Miquelon. We appreciate the helpful information on those fisheries provided by both Canada and France (in respect of St. Pierre and Miquelon), respectively, in their various reports and also in response to issues raised during the correspondence period. During the virtual annual meeting, we are particularly keen to continue to explore improvements to the sampling programs implemented in these fisheries to enhance information on stock origin of harvested salmon, including salmon of U.S. origin and other stocks of low abundance. Such information is essential to better understanding the potential impact of those fisheries on endangered U.S. populations as well as other Atlantic salmon stocks. It is also critical to understanding the effectiveness of management measures in mitigating those impacts.

We also appreciate the information provided by Canada in its report to the NAC on introductions and transfers. Similar to last year, we would like to see its scope expanded to include significant projects that are under consideration within Canada such as Greig's Placentia Bay aquaculture project. The NAC, and NASCO more generally through the Williamsburg Resolution and NAC Protocols, have recognized the importance of addressing the impact of introductions and transfers on wild Atlantic salmon populations. Strong communication through the NAC about approved and proposed introduction and transfer activities that could impact wild stocks, especially endangered U.S. stocks, is an essential aspect of the work of this organization.

In closing, the United States looks forward to continuing to work with its colleagues in the NAC to strengthen the management of Atlantic salmon in the Commission area.

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Annex 3

2020 List of Participants

* Denotes Head of Delegation

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Ms Julia Crocker	*julie.crocker@noaa.gov*	National Marine Fisheries Service, Gloucester, Massachusetts
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Annex 4

NAC(20)05

Thirty-Seventh Annual Meeting of the North American Commission

By Video Conference

1 – 5 June 2020

Agenda

1. Opening of the Meeting
2. Adoption of the Agenda
3. Election of Officers
4. Review of the 2019 Fishery and ACOM Report from ICES on Salmon Stocks in the Commission Area
5. Mixed-Stock Fisheries Conducted by Members of the Commission
6. Sampling in the Labrador Fishery
7. The St Pierre and Miquelon Salmon Fishery
8. Salmonid Introductions and Transfers
9. Announcement of the Tag Return Incentive Scheme Prize
10. Recommendations to the Council on the Request to ICES for Scientific Advice
11. Other Business
12. Date and Place of the Next Meeting
13. Report of the Meeting
14. Close of the Meeting

Annex 5

North American Commission

NAC(20)09

Presentation of the ICES Advice on Atlantic Salmon to the North American Commission

sal.nac.all

Atlantic salmon from North America

Photo by Nick Hawkins

ICES CIEM

Terms of Reference

3. With respect to Atlantic salmon in the North American Commission area:

3.1 describe the key events of the 2019 fisheries (including the fishery at Saint Pierre and Miquelon);

3.2 update age-specific stock conservation limits based on new information as available, including updating the time-series of the number of river stocks with established CLs by jurisdiction;

3.3 describe the status of the stocks, including updating the time-series of trends in the number of river stocks meeting CLs by jurisdiction;

- ICES advises that when the Framework of Indicators (FWI) was applied in early 2020, a full reassessment was not required and the 2018 ICES advice remains valid
- no mixed-stock fishery options on 1SW non-maturing and 2SW salmon components from North American stocks in 2020
- 2020 marks the final year of NASCO's three year multi-annual regulatory measure for fishing Atlantic salmon at West Greenland

3.1 Key Events 2019 Fisheries: Catch

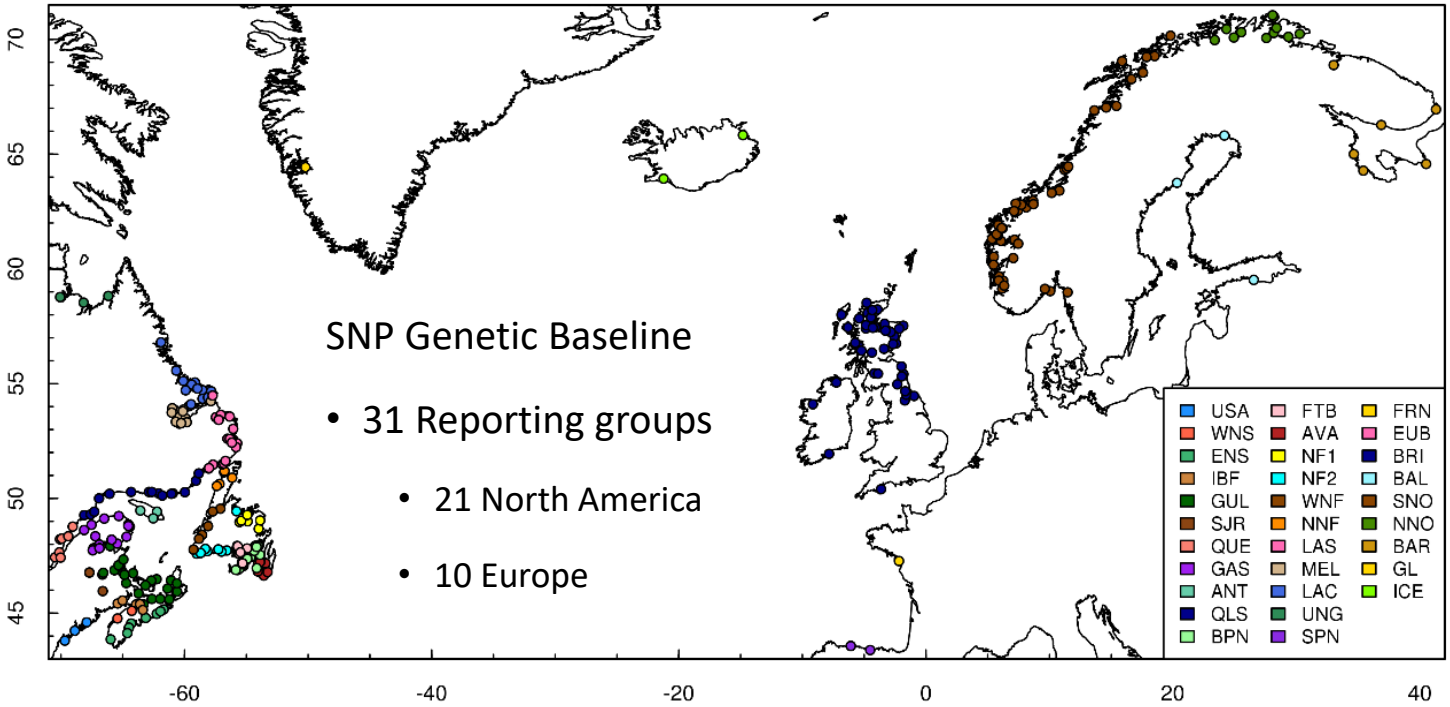
- North America: 95.1 t
  - 93.8 t Canada - 2nd lowest in time-series
  - 1.3 t Saint Pierre and Miquelon (France) - 4th lowest in time-series
  - 0 t USA

Table 1: sal.nac.all

2019	Canada					Saint Pierre & Miquelon (SPM)	USA	North America
	Commercial	Indigenous (FSC)	Labrador Resident	Recreational	Total			
Reported Catch (t)	0	54	2	38	94	1	0	95
% of NAC total	-	57%	2%	40%	99%	1%	0%	
Unreported catch (t)					12	-	0	12
Location of catches								
% in-river					52%	0		52%
% in estuaries					41%	0		40%
% coastal					7%	100%		8%

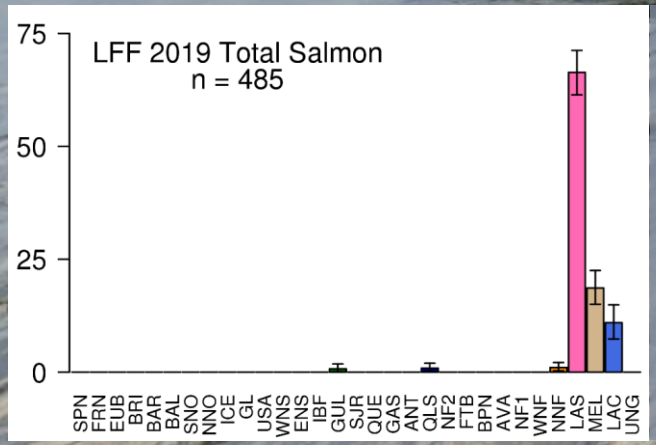
3.1 Origin and Composition of Catches

Figure 4: sal.nac.all



3.1 Origin and Composition of Catches: Labrador

Figure 5: sal.nac.all



2019:

- 867 scale and tissue samples collected
- 6% of harvest by number

- 485 samples with genetic origin
- emphasis on samples from coastal areas where interception of non-local stocks more prevalent
- > 98% assigned to Labrador genetic groups
- no USA origin salmon detected in 2018 and 2019

3.1 Origin and Composition of Catches: Saint Pierre and Miquelon

2019:

- 63 scale and tissue samples
- 12% of harvest by number
- 96% to 3 reporting groups
  - 42% Gulf of St. Lawrence
  - 30% Gaspe Peninsula
  - 24% Newfoundland

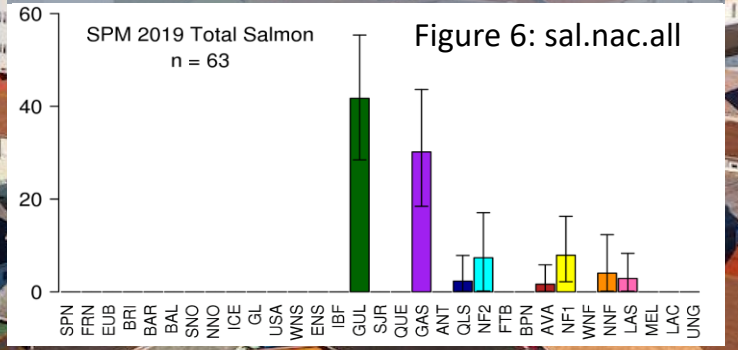
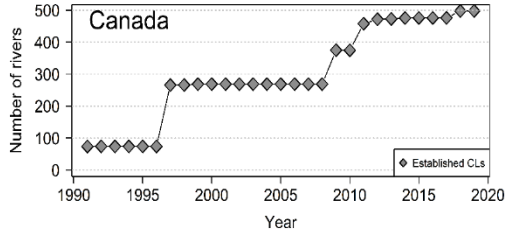


Figure 6: sal.nac.all

3.2 Stock Conservation Limits (CLs)

Figure 7: sal.nac.all



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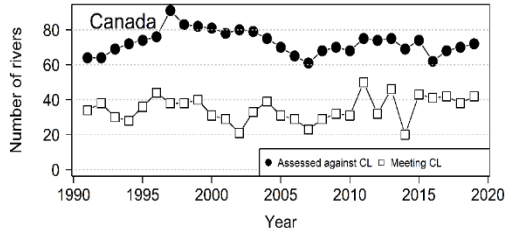

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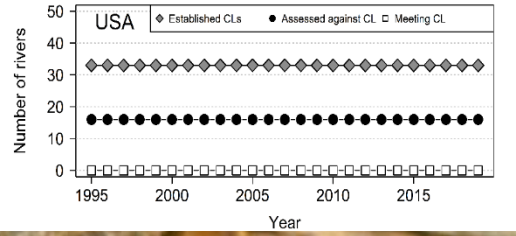

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3.3 Salmon Returns

Small Salmon (1SW)

- 332,100
- 22% lower than 2018
- 8th lowest in time-series
- 87% to Newfoundland and Labrador

Large Salmon (MSW and repeats)

- 103,900
- 15% lower than 2018
- 3rd lowest in time-series
- 75% to Labrador, Quebec and Gulf

2SW Salmon (subset of Large)

- 59,900
- 28% lower than 2018
- 2nd lowest in time-series
- 92% to Labrador, Quebec and Gulf

Figure 8: sal.nac.all

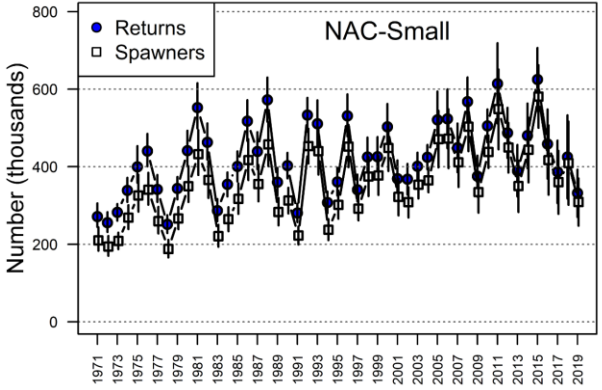


Figure 9: sal.nac.all

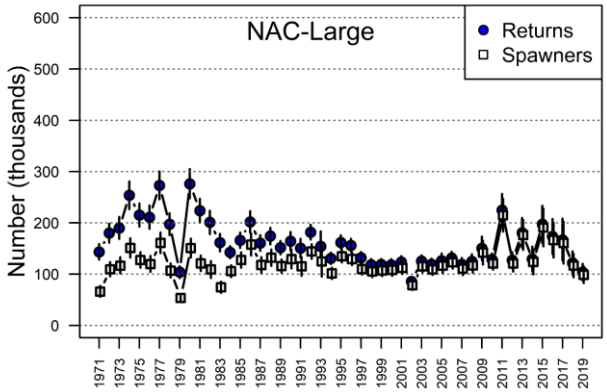
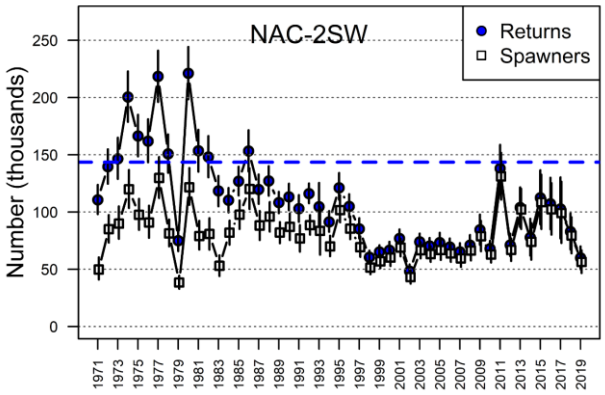


Figure 10: sal.nac.all

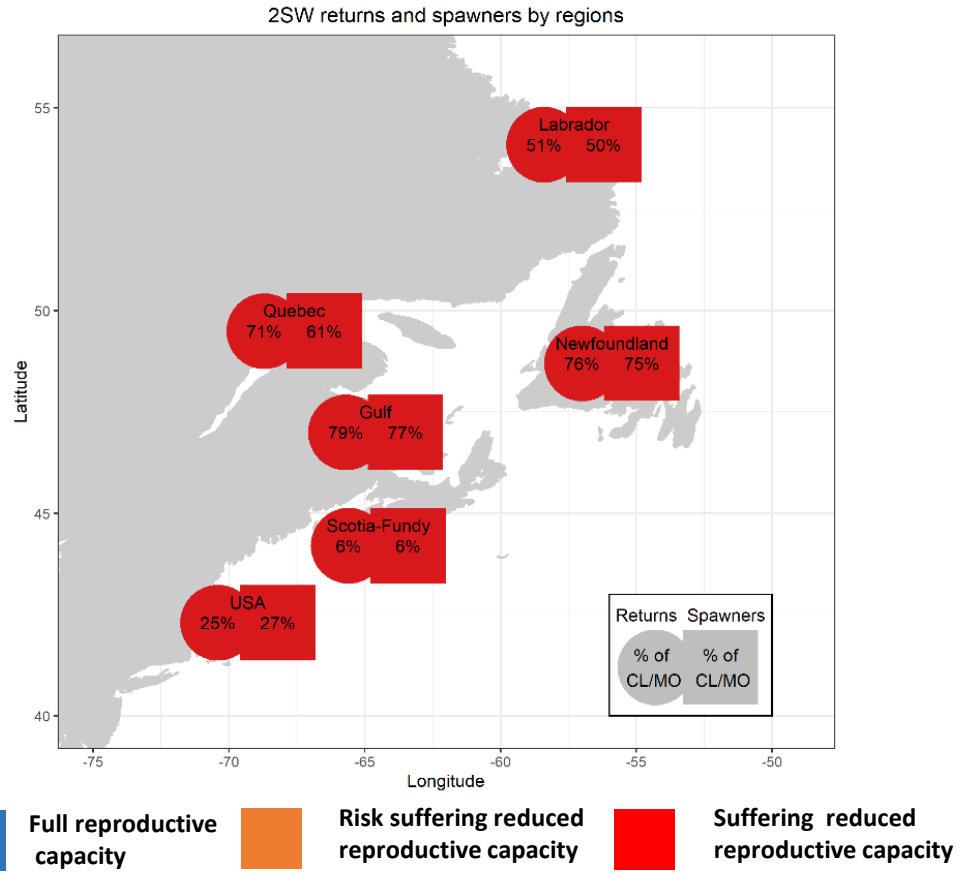


3.3 Status of Stocks: By Region

2019:

- 2SW returns and spawners suffering reduced reproductive capacity in all six assessment regions
- Particularly large deficits are noted for Scotia-Fundy (6%) and USA regions (27%)

Figure 11: sal.nac.all

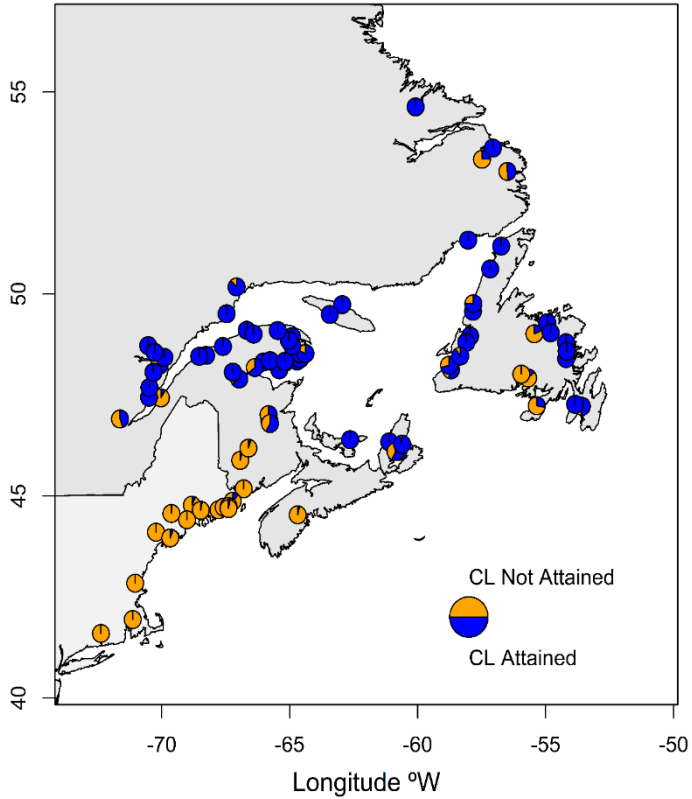


3.3 Degree of CL Attainment

- Proportion CL Attained = egg deposition / CL
  - 42 of 86 (49%) achieved or exceeded CLs
  - 28 of 86 (33%) were at, or less, than 50% CL

- Canada
  - 1991-2019 CL time-series
    - Number of rivers assessed ranged from 61 to 91
    - percentage rivers achieving CL ranged from 26% to 67% (59% in 2019)
- USA
  - None of the assessed rivers have achieved CLs

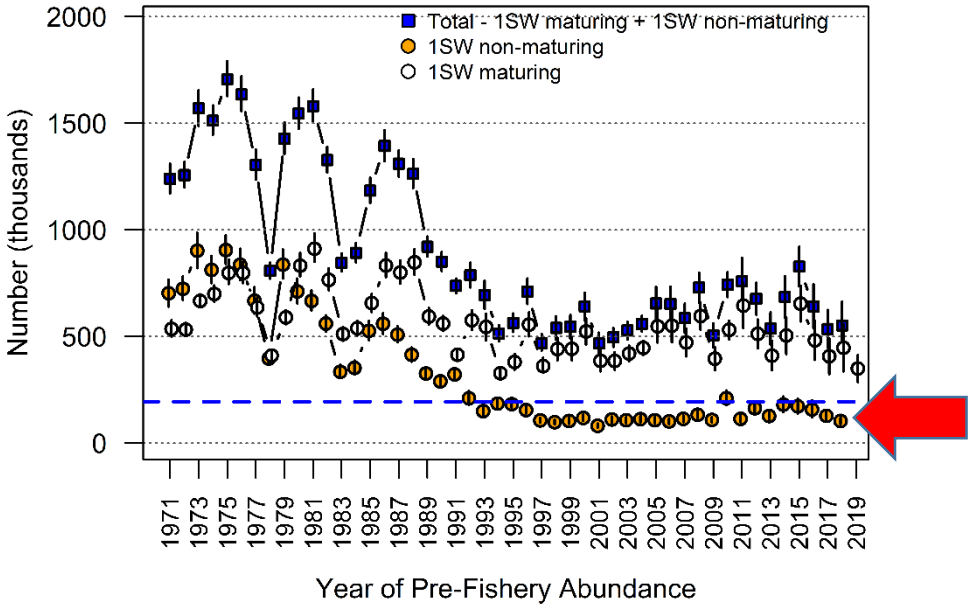
Figure 12: sal.nac.all



3.3 Pre-Fishery Abundance (PFA)

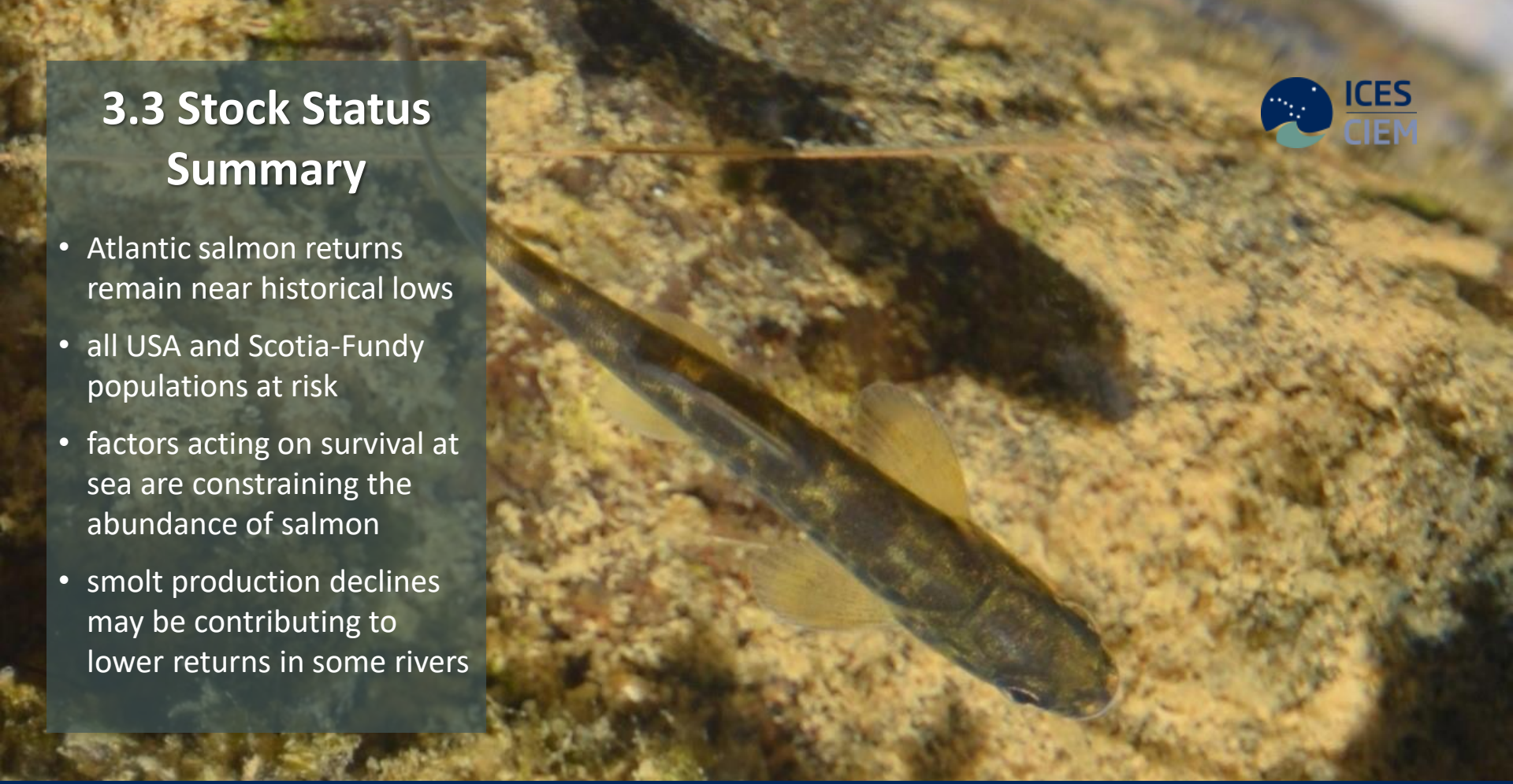
- PFA: salmon at sea prior to all marine fisheries (1 August second summer at sea)
  - Two components:
    - 1SW maturing (return as 1SW)
    - 1SW non-maturing (return as MSW)
- 2018 PFA year was 551,700 fish
  - declined 66% over the time-series
  - suffering reduced reproductive capacity

Figure 13: sal.nac.all



3.3 Stock Status Summary

- Atlantic salmon returns remain near historical lows
- all USA and Scotia-Fundy populations at risk
- factors acting on survival at sea are constraining the abundance of salmon
- smolt production declines may be contributing to lower returns in some rivers



Annex 6

CNL(20)53

Summary of Discussions held during the ICES Advice Webinar

Monday 1 June 2020

Dave Meerburg (Atlantic Salmon Federation): noted Dr Robertson's conclusion that factors other than fisheries were affecting stocks. He stated that Dr Robertson had mentioned that the returns of two-sea-winter (2SW) salmon in 2019 were the lowest in the time series from 1971. However, the graph on the 'Exploitation Rate' slide appeared to show a steadily increasing exploitation rate on 2SW North American salmon at West Greenland since around 2001. The most recent year assessed showed the highest level of exploitation of these fish at West Greenland since 2001, yet the home waters had the second lowest returns they have ever had. He questioned the conclusion that the fisheries are not having an effect if there is an increase in exploitation rate in one place, yet a decrease in returns at another. He felt that there may be a problem there.

Martha Robertson (ICES): agreed that fisheries is one component but that survival of salmon at sea has a large unexplained component.

Dave Meerburg (Atlantic Salmon Federation): agreed with Dr Robertson, but pointed out that she had not highlighted the fact that the exploitation at Greenland was the highest it has been since 2001 on North American stocks, despite the fact that that year, 2018, saw a much reduced fishery from some previous years. He also indicated that the quota was exceeded by about a third in the year 2000.

Gennady Zharkov (Russian Federation): asked whether there were any estimates of escaped farmed fish.

Martha Robertson (ICES): responded that the ICES advice does mention the production of farmed salmon, but the Working Group on North Atlantic Salmon (WGNAS) does not provide a summary of reports of escapees. This is not within the Working Group's Terms of Reference.

Paul Knight (Salmon and Trout Conservation UK): noted that the NGOs are extremely worried about introgression and asked whether this is something that could be modelled or calculated so that it could come through the advice models in future. He stated that Norwegian rivers are becoming more and more 'polluted' with introgression, and lots of NGOs believe that many other European rivers are the same. He asked if this would be a reasonable or credible question to ask of ICES.

Martha Robertson (ICES): advised that there is already a separate Working Group within ICES looking at the impacts of introgression on wild Atlantic salmon. She noted that Ian Bradbury, a geneticist, and member of the WGNAS, is also part of that Group.

Arnaud Peyronnet (European Union): thanked Dr Robertson for her presentation. He noted that Dr Robertson had shown the reproductive stock complex in North America, and that there is reduced reproductive status for all the different rivers. However, a large number of those rivers were shown to be attaining their conservation limits. He found it difficult to reconcile these two elements, how it was possible to have attained conservation limits while also having reduced reproductive status and asked Dr Robertson for further clarification.

Martha Robertson (ICES): agreed that this is difficult to understand.

Gérald Chaput (Canada): commented that the conservation limit attainment for individual rivers is for all sea-ages, whereas the reduced reproductive capacity shown in Figure 3.3 in the presentation is specifically for 2SW salmon.

Martha Robertson (ICES): reiterated this point, indicating that a river may have lots of one-sea-winter (1SW) fish returning, but may not have many 2SW fish returning. So the river is healthy, but the MSW fish component is not so healthy. MSW fish are the only fish from North America that travel to Greenland, so while, in general, North American stocks are healthy with 1SW fish, the MSW stock component that travels to Greenland is not as healthy.

Alan McNeill (Canada): asked whether the recreational catch included caught and released fish or only harvested salmon?

Martha Robertson (ICES): replied that in North America 'catch' or 'harvest' means those fish that are retained, and that the advice document includes how many fish were released. She noted that a large number of fish are released, but they are not considered part of the harvest.

Katrine Kærgaard (Denmark (in respect of the Faroe Islands and Greenland)): noted that ICES concludes that factors other than fisheries must affect the decline in the stock and asked if it would it be possible for ICES to map which other factors affect the stock.

Martha Robertson (ICES): stated that the end of the advice document contains an 'other factors for consideration' section, which she believes requires updating. She indicated that she would raise this with the WGNAS in 2021. The advice document does not specify the other factors, although given the poor returns and restrictions on fisheries, we know that there must be other factors. There is a large at-sea mortality but at this point, the mechanisms of that mortality cannot be explained.

Gennady Zharkov (Russian Federation): asked whether there was any progress in respect of new measures concerning mixed-stock fisheries in Norway.

Martha Robertson (ICES): stated that she was unaware of new management measures for coastal fisheries in Norway, and that this would be a question for Norway.

Paul Knight (Salmon and Trout Conservation UK): noted Dr Robertson's comment about at-sea mortality, and that most people are in agreement that this is a problem. He felt that some scientists now think that more fish are lost in the freshwater environment than was previously thought, before they go to sea. He asked if this were something that ICES was aware of and whether it could be investigated further.

Martha Robertson (ICES): replied that ICES does have estimates of smolt production on many rivers. There is a decline in output for some rivers, and this is going to become a bigger concern as populations decline and they go below the point at which freshwater production will decline. At the moment, most of the focus is still on the marine environment as there are rivers which are considered to be at full reproductive capacity, but to which the fish are not returning. This is the key issue for many populations at present. The good thing about freshwater is that freshwater issues can be managed. Most freshwater declines are site specific, although some relate to climate change in the south. Different jurisdictions are looking at the freshwater issues in their own rivers, and there is a wide range of issues such as predation, warm water, or hydro dams. From the North Atlantic perspective, the focus is on impacts in the marine environment.

Dave Meerburg (Atlantic Salmon Federation): thanked Dr Robertson for her very informative presentation. He noted that this would be the last year she presented the ICES

advice to NASCO as her term as Chair of the WGNAS was coming to an end; he thanked her for her work over the past three years in this role.

Gennady Zharkov (Russian Federation): noted that a complete ban on netting was being discussed in Norway.

Martha Robertson (ICES): indicated that she was not part of those discussions but stated that there are constant reductions in marine fisheries. Each year there seem to be more and more restrictions on marine fishing.

Katrine Kærgaard (Denmark (in respect of the Faroe Islands and Greenland)): asked whether the planned predation workshop had taken place in 2019, and if ICES could use that information in its advice.

Martha Robertson (ICES): stated that she recalled there being a predation workshop in 2019, but it was not part of the ICES WGNAS. She suggested it may have been part of the Likely Suspects Project.

Ken Whelan (Atlantic Salmon Trust): noted that while predation is being looked at in the context of the Likely Suspects Framework, he was not aware of any workshop being held or planned on the issue. He indicated that there was extensive work planned in the Moray Firth in Scotland which would specifically look at predatory birds. Marine Scotland would also be involved in this work.

Martha Robertson (ICES): noted that there are now a lot of jurisdictions looking at predation in the freshwater environment. She thanked everyone for their comments and questions.

Emma Hatfield (NASCO and Webinar Chair): thanked Dr Robertson for her presentation and for her sterling work as the Chair of the WGNAS in recent years. She also thanked everyone for being willing to participate in this unusual way of presenting the advice from ICES in this unusual year.

Annex 7

CNL(20)13

Request for Scientific Advice from ICES

1. With respect to Atlantic salmon in the North Atlantic area:

1.1 provide an overview of salmon catches and landings by country, including unreported catches and catch and release, and production of farmed and ranched Atlantic salmon in 2020[1];

1.2 report on significant new or emerging threats to, or opportunities for, salmon conservation and management[2];

1.3 provide a compilation of tag releases by country in 2020;

1.4 identify relevant data deficiencies, monitoring needs and research requirements;

1.5 review and update the General Considerations section (Annex 2) of the ICES Commissions' advice documents to include 'Environmental and other influences on the stock'.

2. With respect to Atlantic salmon in the North-East Atlantic Commission area:

2.1 describe the key events of the 2020 fisheries[3];

2.2 review and report on the development of age-specific stock conservation limits, including updating the time series of the number of river stocks with established CLs by jurisdiction;

2.3 describe the status of the stocks, including updating the time series of trends in the number of river stocks meeting CLs by jurisdiction;

2.4 provide catch options or alternative management advice for the 2021 / 2022 – 2023 / 2024 fishing seasons, with an assessment of risks relative to the objective of exceeding stock conservation limits, or pre-defined NASCO Management Objectives, and advise on the implications of these options for stock rebuilding[4]; and

2.5 update the Framework of Indicators used to identify any significant change in the previously provided multi-annual management advice.

3. With respect to Atlantic salmon in the North American Commission area:

3.1 describe the key events of the 2020 fisheries (including the fishery at St Pierre and Miquelon)[3];

3.2 update age-specific stock conservation limits based on new information as available, including updating the time series of the number of river stocks with established CLs by jurisdiction;

3.3 describe the status of the stocks, including updating the time series of trends in the number of river stocks meeting CLs by jurisdiction;

3.4 provide catch options or alternative management advice for 2021 – 2024 with an assessment of risks relative to the objective of exceeding stock conservation limits, or pre-defined NASCO Management Objectives, and advise on the implications of these options for stock rebuilding[4]; and

3.5 update the Framework of Indicators used to identify any significant change in the previously provided multi-annual management advice.

4. With respect to Atlantic salmon in the West Greenland Commission area:

4.1 describe the key events of the 2020 fisheries[3];

4.2 describe the status of the stocks[5];

4.3 provide catch options or alternative management advice for 2021 – 2023 with an assessment of risk relative to the objective of exceeding stock conservation limits, or pre-defined NASCO Management Objectives, and advise on the implications of these options for stock rebuilding[4];

4.4 update the Framework of Indicators used to identify any significant change in the previously provided multi-annual management advice.

Notes:

1. *With regard to question 1.1, for the estimates of unreported catch the information provided should, where possible, indicate the location of the unreported catch in the following categories: in-river; estuarine; and coastal. Numbers of salmon caught and released in recreational fisheries should be provided.*

2. *With regard to question 1.2, ICES is requested to include reports on any significant advances in understanding of the biology of Atlantic salmon that is pertinent to NASCO, including information on any new research into the migration and distribution of salmon at sea and the potential implications of climate change for salmon management.*

3. *In the responses to questions 2.1, 3.1 and 4.1, ICES is asked to provide details of catch, gear, effort, composition and origin of the catch and rates of exploitation. For homewater fisheries, the information provided should indicate the location of the catch in the following categories: in-river; estuarine; and coastal. Information on any other sources of fishing mortality for salmon is also requested. For 4.1, if any new surveys are conducted and reported to ICES, ICES should review the results and advise on the appropriateness of incorporating resulting estimates into the assessment process.*

4. *In response to questions 2.4, 3.4 and 4.3, provide a detailed explanation and critical examination of any changes to the models used to provide catch advice and report on any developments in relation to incorporating environmental variables in these models. Also provide a detailed explanation and critical examination of any concerns with salmon data collected in 2020 which may affect the catch advice considering the restrictions on data collection programmes and fisheries due to the Covid-19 pandemic.*

5. *In response to question 4.2, ICES is requested to provide a brief summary of the status of North American and North-East Atlantic salmon stocks. The detailed information on the status of these stocks should be provided in response to questions 2.3 and 3.3.*

Attendees:

Sergey Prusov (NEAC, manager representative)
Peder Fiske (NEAC, scientist representative)

Tony Blanchard (NAC, manager representative)
Tim Sheehan (NAC, scientist representative)

Sissel Lindhart Fredsgaard (WGC, manager representative)
Niall Ó Maoiléidigh (WGC, scientist representative)

Martha Robertson (ICES representative, observer)
Patrick Gargan (Co-ordinator)

New questions, originator:

1.5 Denmark (in respect of the Faroe Islands and Greenland)

Annex 8

NAC(20)00

List of North American Commission Papers

NAC(20)00	List of North American Commission Papers
NAC(20)01	Provisional Agenda (English and French)
NAC(20)02	Covid-19 NAC Agenda Planning
NAC(20)03	Draft Agenda (English and French)
NAC(20)04	Explanatory Memorandum on the Agenda
NAC(20)05	Agenda (English and French)
NAC(20)06	Annual Report (Tabled by the United States)
NAC(20)07	Labrador Subsistence Food Fisheries – Mixed Stock Fisheries Context Paper
NAC(20)08	Annual Report (Tabled by Canada)
NAC(20)09	Presentation of the ICES Advice on Atlantic Salmon from North America to the North American Commission
NAC(20)10	Draft Report of the Thirty-Seventh Annual Meeting of the North American Commission of the North Atlantic Salmon Conservation Organization
NAC(20)11	Report of the Thirty-Seventh Annual Meeting of the North American Commission of the North Atlantic Salmon Conservation Organization
NAC(20)12	North American Commission Inter-Sessional Correspondence