



**REPORT OF THE
THIRTY-FIFTH ANNUAL MEETING OF
THE
WEST GREENLAND COMMISSION**

**12 – 15 JUNE 2018
Portland, Maine, USA**

Chair: Mr Carl McLean (Canada)
Vice-Chair: Ms Kimberly Damon-Randall (USA)
Rapporteur: Mr Ian Russell (European Union)
Secretary: Dr Emma Hatfield

WGC(18)12

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Report of the Thirty-Fifth Annual Meeting of the West Greenland Commission of the North Atlantic Salmon Conservation Organization

Holiday Inn by the Bay, Portland, Maine, USA

12 - 15 June 2018

1. Opening of the Meeting

- 1.1 The Chair, Mr Carl McLean (Canada), opened the Meeting and welcomed delegates to Portland. He noted that there had been a further productive Inter-Sessional Meeting of the Commission on Sunday 10 June and felt that this had provided a sound basis for the ongoing work of the Commission in moving towards a new multi-annual agreement for the Greenland fishery.
- 1.2 An Opening Statement was made by the representative of the United States (Annex 1). There were no other Opening Statements.
- 1.3 A list of participants at the Thirty-Fifth Annual Meetings of the Council and Commissions of NASCO is included as Annex 2.

2. Adoption of the Agenda

- 2.1 The Commission adopted its Agenda, WGC(18)08 (Annex 3).

3. Nomination of a Rapporteur

- 3.1 Mr Ian Russell (European Union) was appointed as Rapporteur.

4. Election of Officers

- 4.1 The Chair noted during the Portland Inter-Sessional Meeting that the tenures of the Chair and Vice-Chair of the Commission would cease at the end of the Thirty-Fifth Annual Meeting of NASCO and new officers would be needed. He further noted that the then Vice-Chair, Ms Kim Damon-Randall (USA), was now head of the United States delegation and thus had relinquished the Commission Vice-Chair role. Mr Stephen Gephard (USA) was elected to replace Ms Kim Damon-Randall as Vice-Chair for the remainder of the tenure. The Commission re-elected Mr Carl McLean (Canada) as its Chair (nominated by the representative of the United States, seconded by the representative of the European Union), and Mr Stephen Gephard (USA) as its Vice-Chair (nominated by the representative of the European Union, seconded by the representative of Canada).

5. ACOM Report from ICES on Salmon Stocks in the Commission Area

- 5.1 The representative of ICES, Dr Martha Robertson, presented a report on the scientific advice on salmon stocks in the West Greenland Commission area based on the ICES Advisory Committee (ACOM) report, CNL(18)08rev. This report contains the scientific advice relevant to all Commissions. Dr Robertson's presentation to the Commission is available as document WGC(18)05 (Annex 4).
- 5.2 The NGO representative noted that the estimates of pre-fishery abundance for stocks contributing to the West Greenland fishery had been below or only slightly above

conservation requirements for some years and had interpreted that this meant options for fishing were very limited in both Greenland and in homewaters. The representative of ICES confirmed this interpretation.

- 5.3 The Chair advised that discussion on the report of the fishery at Greenland, included in WGCIS(18)04, which normally falls under this agenda item, would be covered under agenda item 6.

6. Report of the Inter-Sessional Meeting of the West Greenland Commission

- 6.1 The Chair advised that there had been three Inter-Sessional Meetings of the Commission in the lead up to the Annual Meeting. A meeting had been held in Copenhagen in late February / early March (WGC(18)03). This had been followed by a conference call in mid-May (WGC(18)04) and a meeting in Portland immediately prior to the Annual Meeting on Sunday 10 June (WGCIS(18)23) (Annex 5). He felt that these various meetings had been very productive, allowing a transparent and open exchange of views and had provided a sound basis for development of a new multi-annual regulatory measure over the course of the Annual Meeting. He noted that full details of the discussions were available in the various reports but provided a brief overview of some of the key issues covered at each meeting.
- 6.2 During the Inter-Sessional Meeting in Copenhagen, the Commission had received a report of the fishery at West Greenland in 2017, WGCIS(18)04. The representative of Denmark (in respect of the Faroes and Greenland) (DFG) had described the efforts made to improve monitoring and control measures, including licensing provisions and efforts to improve reporting rates; this had led to extensive discussions, including a review of some of the monitoring and control measures employed by other Parties. Further detailed discussions followed on the provisions that might be included in a new regulatory measure. Additional clarification was also sought from the representative of DFG on various issues and these were provided in two sets of written questions. The first set was answered during the course of the Inter-Sessional Meeting (WGCIS(18)07).
- 6.3 Responses to the second set of written questions were provided by DFG in early May (WGCIS(18)14) and had provided the main focus for discussion during the Inter-Sessional Conference Call held on 15 May. This had provided further clarification on various issues related to monitoring and control of the fishery.
- 6.4 The most recent Inter-Sessional Meeting, held on 10 June, had included agreement on the change in Commission officers, reported in Agenda Item 4. Discussion had then centered on consideration of the elements that might be included in a possible future regulatory measure for the West Greenland Commission and on potential improvements in monitoring and control in the fishery. An initial document outlining possible elements that might be included in a new West Greenland Commission regulatory measure had been developed by the Chair at the Copenhagen meeting (WGCIS(18)11). Subsequently, during the Inter-Sessional Conference Call, the representative of the United States indicated that they planned to develop a document containing provisions that they considered should be included, incorporating elements related to improved monitoring and control. This document (WGCIS(18)19) was received by the Parties a day prior to the 2018 Portland Inter-Sessional Meeting of the West Greenland Commission and helped to inform discussions at that meeting (WGCIS(18)23).

- 6.5 The Chair concluded that the prior discussions had, in his view, been very productive and had provided a sound basis for developing a new multi-annual regulatory measure and hoped that Parties concur.
- 6.6 In response to an invitation from the Chair, the representative of DFG reported that they had tabled a ‘Summary of the Reports on the Greenland Salmon Fishery in 2015, 2016 and 2017’ (WGC(18)07) (Annex 6). The previous regulatory measure for 2015 – 17 required Greenland to report on the fishery. Greenland has done this at each Annual Meeting; document WGC(18)07 provides a summary of these reports. The representative of DFG also noted that Greenland had completed phone surveys in 2014, 2015 and 2016; they had been unable to complete a survey in 2017. Further details related to the three phone surveys had been submitted to the ICES Working Group on North Atlantic Salmon as Working Papers 2015/35, 2016/31 and 2017/02 and he invited people to access these on the ICES website if interested.
- 6.7 The NGO representative noted that Working Papers were not usually available on the ICES website. He also questioned the interpretation in the Greenland fishery report for 2016 and 2017 that indicated that ‘most’ reports had been received since only a relatively small proportion of licensed fishers had reported. The representative of DFG advised that the reports received were believed to account for most of the catch, since the requirement for reporting zero catches had not been fully implemented. However, this had now been included in the proposed new measure.
- 6.8 In response to a question from the Chair, the representative of ICES agreed to make the Working Papers related to the phone surveys, with the agreement of DFG, available through NASCO (as document WGC(18)13) (Annex 7).

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

- 7.1 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 agenda items in each of the Commissions to allow for a focus on mixed-stock fisheries (MSFs). Each Party had therefore been requested to produce a short paper prior to the meeting to facilitate discussion. These reports are asked to provide a description of any MSFs still operating, the most recent catch data, any updates to the Implementation Plans (IPs) relating to MSFs and any changes or developments in the management of MSFs in the IP period to implement NASCO’s agreements. Two Parties had provided papers: Canada and the European Union. The United States did not report as they do not have any Atlantic salmon fisheries.
- 7.2 A representative of Canada (Mr Gérald Chaput) provided an overview of the MSFs in Canada, NAC(18)04. These subsistence (food, social, and ceremonial) fisheries operate in coastal and estuarine areas of Labrador and are prosecuted by indigenous groups. The management of these fisheries includes a number of controls related to gear, seasons, weekly closures, carcass tagging of harvested salmon, a logbook programme for reporting catches, a limit on total harvest using tags, and a prohibition on sales. Reported annual harvests between 2000 to 2017 have ranged from 15.6 t to 42.4 t; the harvest in 2017 was 39.5 t. Sampling in the fishery has taken place every year since 2006 by the indigenous communities and genetic analysis of collected samples has confirmed that the majority of fish taken in the fishery (93% to 99%) originate in Labrador. Two U.S.-origin salmon were identified from samples in 2017, suggesting that 41 salmon (range 9 – 113) had been taken in the Labrador fishery as a whole.

- 7.3 In response to a question from the representative of the United States, Mr Chaput confirmed that sampling was expected to continue, and that funding was available to support the analysis of 2018 and 2019 fishery samples. The representative of the NGOs acknowledged the high proportion of Labrador fish taken in the fishery, but expressed concern that some of the stocks in Labrador itself were known to be below conservation limits and were potentially vulnerable to exploitation in these MSFs.
- 7.4 The representative of the European Union provided an overview of the MSFs in the EU, NEA(18)05. He highlighted that there were very different interpretations of what constituted a MSF and that several of the remaining EU MSFs are exploiting identified stocks for which conservation limits are being met. The fishery in the River Teno (Finland) operates in the main stem of the river, but exploits a number of genetically different populations from different tributary populations. There is a single MSF in the estuary of the Adour (European Union – France), two MSFs in European Union – Ireland and three in European Union – UK (England and Wales). Coastal fisheries in European Union – Sweden and European Union – UK (Scotland) had recently been closed and there were no MSFs in European Union – UK (Northern Ireland), European Union – Germany, European Union – Spain or European Union – Portugal. The catches in these fisheries in 2017 were Teno (30 t), European Union – France (6 t), European Union – Ireland (2.9 t) and European Union – UK (England and Wales) (36 t).
- 7.5 With regard to recent management changes, the representative of the European Union advised that new regulations in European Union – Finland had resulted in a 30% reduction of fishing pressure on the weakest stocks. There had been no management changes in European Union – France and European Union – Ireland, although genetic sampling in Irish fisheries had confirmed that the fisheries in question were almost exclusively exploiting local stocks which were well above conservation requirements. In European Union – UK (England and Wales), the phase out of the Anglian coastal fishery was continuing under a new Net Limitation Order and a range of measures (phase-outs and catch limits) were in place to reduce exploitation within the Severn Estuary fishery. In the English North-East coast fishery, the phase out of the drift and beach nets is continuing. Proposals to close the drift net fishery had been consulted on, as part of a range of new national measures to reduce exploitation in European Union – UK (England), and had originally been proposed for implementation in 2018. This had now been deferred. Additional national measures had been consulted on in European Union – UK (Wales). The national measures developed independently in both European Union – UK (England) and European Union – UK (Wales) have proposed a range of new restrictions from fishery closures to mandatory or enhanced levels of catch-and-release. If approved, these measures are expected to apply from 2019.
- 7.6 In response to a question from the representative of DFG, the representative of the European Union advised that the total catch of salmon in MSFs in the EU was about 75 t, although he reiterated the very differing nature of the MSFs reported on.

8. Regulatory Measures

- 8.1 At the Portland Inter-Sessional Meeting, the Commission had discussed a draft framework for a possible new regulatory measure for the West Greenland Atlantic salmon fishery. This draft was subject to further development through informal discussions between the Heads of Delegation.
- 8.2 The Chair tabled the draft proposed regulatory measure for 2018 to 2020, WGC(18)06rev. He acknowledged the substantial efforts that had been made by Parties

in developing this. The Commission reviewed the draft measure on a line by line basis. The draft proposed regulatory measure was agreed by Parties subject to minor typographical corrections. In response to a point of clarification raised by the representative of the United States, the representative of DFG affirmed that the reporting requirements in paragraph 4 of the draft proposed regulatory measure related to reporting on the outcome of the fishery would include reference to the implementation of the monitoring and control, and other provisions of the regulatory measure. The representative of Canada also noted that the word ‘fishers’ should be used throughout the document and not ‘fishermen’.

- 8.3 The NGO representative requested clarification on paragraph 8 (regarding the sale of salmon by licensed professional fishers) and whether this would now only be allowed at the open air markets. The representative of DFG clarified that this would be the case and that it will not be permissible to sell to other institutions. The NGO representative therefore suggested that the word ‘only’ should be inserted into this provision to clarify this. This was agreed.
- 8.4 Canada and the European Union acknowledged the co-operative spirit and the progress made, and the Parties agreed to the new regulatory measure (WGC(18)11) (Annex 8). The representative of the United States also acknowledged the co-operative spirit that the members of the West Greenland Commission brought to the meetings during the week. She felt that significant progress had been made through the development of this new regulatory measure. She believed that the 30 t quota is above the sustainable limit for this stock complex, but that the United States are encouraged by the strong monitoring and control measures that DFG have agreed to. These increased management and control measures will further strengthen the management of this fishery and provide all members of the Commission with increased confidence in the harvest level of fish. It will also provide ICES with the improved data needed to accurately assess the impacts of this fishery on the productivity of the stock complex. Better data equates to better science which will result in stronger management into the future. However, she reiterated that the United States is encouraged by the advances that have been made within this new regulatory measure and look forward to continuing to work with DFG and other members of the West Greenland Commission towards the benefit of the resource.
- 8.5 The representative of DFG acknowledged the constructive dialogue from Parties in agreeing to the new regulatory measure and indicated that work would now commence in delivering the changes in time for the commencement of the 2018 fishery.
- 8.6 The representative of the NGOs acknowledged the agreement by the Parties of the new regulatory measure and the evident improvements in terms of the new monitoring and control provisions. He was disappointed, however, that the quota agreed by the Commission was higher than the catch that had been reported in the last 2 years given the ongoing endangered status of many of the contributing stocks and the ICES advice.
- 8.7 The Chair congratulated Parties on achieving agreement on a new regulatory measure, highlighting the benefits of constructive and co-operative dialogue.

9. Sampling in the West Greenland Fishery

- 9.1 The West Greenland Fishery Sampling Programme provides valuable biological data to the stock assessments conducted by ICES that inform science-based management decisions for this fishery. The Parties to the West Greenland Commission have worked co-operatively over the past three decades to collect these biological data.

- 9.2 The Greenland sampling co-ordinator, Mr Tim Sheehan (USA) confirmed that Parties had worked collaboratively in delivery of the programme in 2017, with some providing samplers and others contributing to the processing and analysis of samples. The programme had been successfully completed and the results made available to ICES for consideration by the Working Group on North Atlantic Salmon.
- 9.3 Mr Sheehan also noted that he had discussed the provisions of the proposed sampling programme in 2018 with the members of the Commission and all had indicated their willingness to contribute to its continuation in line with past practice. The Commission adopted a West Greenland Fishery Sampling Agreement for 2018, WGC(18)10 (Annex 9).

10. Announcement of the Tag Return Incentive Scheme Prize

- 10.1 The Chair announced that the winner of the West Greenland Commission £1,000 prize in the NASCO Tag Return Incentive Scheme was Mr Qulutannquaq Møller, Maniitsoq, Greenland. The winning tag had been applied to a hatchery smolt released at Delphi on the Bundorragha River, County Mayo, Ireland on 29 April 2016. It was recaptured on 29 September 2017 in Maniitsoq, West Greenland, NAFO Division 1C. The Commission offered its congratulations to the winner.
- 10.2 In response to a question from the NGOs, Mr Sheehan reported that the number of tags returned from Greenland and included in the prize draw ranged between 3 or 4 in some years to perhaps 30 – 40 in some other years. Numbers of tag returns had increased since old tags had been included.

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

- 11.1 The request for scientific advice from ICES prepared by the Standing Scientific Committee in relation to the West Greenland Commission area was agreed by the Council, CNL(18)11 (Annex 10).

12. Other Business

- 12.1 There was no other business.

13. Date and Place of Next Meeting

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

14. Report of the Meeting

- 14.1 The Commission agreed a report of its Meeting.

15. Close of the Meeting

- 15.1 The Chair thanked the Parties and observers for their contributions and closed the Thirty-Fifth Annual Meeting of the West Greenland Commission.

Note: the annexes mentioned above follow the French translation of the report of the meeting. A list of West Greenland Commission papers is included in Annex 11.

WGC(18)12

Compte rendu de la trente-cinquième session annuelle de la Commission du Groenland Occidental de l'Organisation pour la conservation du saumon de l'Atlantique Nord

Holiday Inn by the Bay, Portland, Maine, Etats-Unis

12 – 15 juin 2018

1. Ouverture de la session

- 1.1 Le Président M. Carl McLean (Canada), a ouvert la session et accueilli les délégués à Portland. Il a noté qu'une réunion d'inter-session productive de la Commission avait eu lieu le dimanche 10 juin et qu'il pensait que celle-ci avait fourni une base solide pour la poursuite du travail de la Commission pour avancer vers un nouvel accord pluri-annuel pour la pêche du Groenland.
- 1.2 Une déclaration d'ouverture a été effectuée par la représentante des Etats-Unis (Annexe 1). Aucune autre déclaration d'ouverture n'a été faite.
- 1.3 Une liste des participants aux trente-cinquièmes sessions annuelles du Conseil et des Commissions de l'OCSAN est incluse en Annexe 2.

2. Adoption de l'ordre du jour

- 2.1 La Commission a adopté son ordre du jour, WGC(18)08 (Annexe 3).

3. Nomination d'un rapporteur

- 3.1 M. Ian Russell (Union européenne) a été nommé rapporteur.

4. Election des Membres du Bureau

- 4.1 Le Président a noté durant la réunion d'inter-session de Portland que les mandats du Président et de la Vice-Présidente de la Commission prendraient fin à la fin de la trente-cinquième session annuelle de l'OCSAN et que de nouveaux responsables seraient nécessaires. Il a par ailleurs noté que la Vice-Présidente d'alors, Mme Kim Damon-Randall (Etats-Unis) présidait maintenant la délégation des Etats-Unis, aussi avait-elle renoncé au rôle de Vice-Présidente de la Commission. M. Stephen Gephard (Etats-Unis) avait été élu pour remplacer Mme Kim Damon-Randall en tant que Vice-Président pour le reste du mandat. La Commission a ré-élu M. Carl McLean (Canada) en tant que Président (nominé par la représentante des Etats-Unis, secondé par le représentant de l'Union européenne), et M. Stephen Gephard (Etats-Unis) en tant que Vice-Président (nominé par le représentant de l'Union européenne, secondé par le représentant du Canada).

5. Rapport du Comité Consultatif (ACOM) du CIEM sur les stocks de saumons dans la zone de la Commission

- 5.1 La représentante du CIEM, le Dr Martha Robertson, a présenté un rapport relatif aux conseils scientifiques sur les stocks de saumon dans la zone de la Commission du Groenland occidental basé sur le rapport du Comité consultatif (ACOM) du CIEM, CNL(18)08rev. La présentation du Dr Robertson à la Commission est disponible dans

le document WGC(18)05 (Annexe 4).

- 5.2 Le représentant des ONG a noté que les estimations d'abondance avant pêcheries pour les stocks contribuant à la pêche du Groenland occidental avaient été inférieurs ou bien très légèrement supérieurs aux exigences en matière de conservation depuis un certain nombre d'années et a interprété cela comme signifiant que les alternatives en matière de pêche sont très limitées aussi bien au Groenland que dans les eaux d'origine. La représentante du CIEM a confirmé cette interprétation.
- 5.3 Le Président a informé que la discussion relative au rapport sur la pêche du Groenland, incluse en WGCIS(18)04, normalement traitée dans ce point de l'ordre du jour, sera traitée au titre du point 6 de l'ordre du jour.

6. Rapport de la réunion d'inter-session de la Commission du Groenland occidental

- 6.1 Le Président a informé que trois réunions d'inter-session de la Commission avaient eu lieu durant la période précédent la session annuelle. Une réunion s'est tenue à Copenhague fin février / début mars (WGC(18)03). Celle-ci a été suivie par une conférence téléphonique mi-mai (WGC(18)04) et une réunion à Portland, immédiatement avant la session annuelle, le dimanche 10 juin (WGCIS(18)23) (Annexe 5). Il a senti que ces différentes réunions ont été très productives, et ont permis des échanges de points de vue transparents et ouverts et ont fourni une base solide pour développer une nouvelle mesure de réglementation pluri-annuelle au cours de la session annuelle. Il a noté que de plus amples informations relatives aux discussions étaient disponibles dans les différents rapports, mais il a présenté un bref aperçu de certaines des questions clé traitées lors de chacune des réunions.
- 6.2 Au cours de la réunion d'inter-session de Copenhague, la Commission a reçu un rapport de la pêche du Groenland occidental en 2017, WGCIS(18)04. Le représentant du Danemark (pour les Iles Féroé et le Groenland) (DFG) a décrit les efforts effectués pour améliorer les mesures de suivi et de contrôle, y compris les dispositions d'octroi de permis et les efforts pour améliorer les taux de reporting; de longues discussions en ont découlé, y compris un passage en revue de certaines des mesures de suivi et de contrôle employées par d'autres Parties. Des discussions plus détaillées ont suivi sur les dispositions qui pourraient être incluses dans une nouvelle mesure de réglementation. Des clarifications supplémentaires ont été demandées au représentant de la DFG sur différentes questions et celles-ci ont été fournies en deux séries de questions écrites. Les réponses à la première série ont été données au cours de la réunion d'inter-session (WGCIS(18)07).
- 6.3 Les réponses à la seconde série de questions écrites ont été fournies par DFG début mai (WGCIS(18)14) et ont constitué l'essentiel de la discussion au cours de la conférence téléphonique d'inter-session ayant eu lieu le 15 mai. Ceci clarifié différentes questions relatives au suivi et au contrôle de la pêche.
- 6.4 La réunion d'inter-session qui s'est tenue le 10 juin a inclus un accord concernant le changement de membres du bureau de la Commission, rapporté à titre du point 4 de l'ordre du jour. Les discussions se sont concentrées sur l'étude des éléments pouvant être inclus dans une éventuelle mesure de réglementation future pour la Commission du Groenland occidental et sur des améliorations éventuelles du suivi et du contrôle dans la pêche. Un document initial présentant les éléments éventuels pouvant être inclus dans une nouvelle mesure de réglementation de la Commission du Groenland occidental a été développé par le Président lors de la réunion de Copenhague

(WGCIS(18)11). Par la suite, au cours de la conférence téléphonique d'inter-session, la représentante des Etats-Unis a indiqué qu'ils prévoyaient de développer un document contenant des dispositions qui selon eux devraient être incluses, en incorporant des éléments relatifs à l'amélioration du suivi et du contrôle. Ce document (WGCIS(18)19) a été reçu par les Parties un jour avant la réunion d'inter-session de Portland de 2018 de la Commission du Groenland occidental et a contribué à informer les discussions ayant eu lieu lors de cette réunion (WGCIS(18)23).

- 6.5 Le Président a conclu que les discussions précédentes ont, selon lui, été très productives et ont fourni une base solide pour développer une nouvelle mesure de réglementation pluri-annuelle et a dit espérer que les Parties soient d'accord.
- 6.6 En réponse à une invitation du Président, le représentant de la DFG a rapporté qu'ils ont enregistré un 'Résumé des rapports relatifs à la Pêcherie du saumon du Groenland en 2015, 2016 et 2017' (WGC(18)07) (Annexe 6). La mesure de réglementation précédente pour 2015 – 17 exigeait que le Groenland effectue un rapport sur la pêche. Ce qui a été effectué par le Groenland à chaque session annuelle; le document WGC(18)07 fournit un résumé de ces rapports. Le représentant de la DFG a aussi noté que le Groenland a réalisé des enquêtes téléphoniques en 2014, 2015 et 2016; il n'a pas été à même d'achever une enquête en 2017. Des informations plus détaillées relatives aux trois enquêtes téléphoniques ont été soumises au Groupe de travail sur le saumon de l'Atlantique Nord du CIEM sous la forme des documents de travail 2015/35, 2016/31 et 2017/02 et il a invité les personnes intéressées à les consulter sur le site du CIEM.
- 6.7 Le représentant des ONGs a noté que les documents de travail n'étaient pas habituellement disponibles sur le site du CIEM. Il a aussi remis en question l'interprétation du rapport sur la pêche du Groenland pour 2016 et 2017 qui indique que 'la plupart' des rapports ont été reçus – hors, seule une faible proportion des pêcheurs titularisés ont communiqué un rapport. Le représentant de la DFG a informé que l'on considérerait que les rapports reçus rendaient compte de la plupart des prises, puisque les exigences en matière de rapport d'absence de prises n'avaient pas été intégralement appliquées. Cela a cependant maintenant été inclus dans la nouvelle mesure proposée.
- 6.8 En réponse à une question du Président, la représentante du CIEM a convenu de mettre à disposition les documents de travail relatifs aux enquêtes téléphoniques, avec l'accord de la DFG, via l'OCSAN (sous la forme du document WGC(18)13) (Annexe 7).

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

- 7.1 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 (MSFs). Il a par conséquent été demandé à chacune des Parties de produire un article bref avant la session afin de faciliter la discussion. Ces rapports sont demandés pour fournir une description de toutes MSFs encore en opération, les données les plus récentes relatives aux prises, toutes mises à jour sur les Plans d'application (IPs) relatifs aux MSFs et tous changements et développements dans la gestion des MSFs au cours de la période de l'IP pour mettre en œuvre les accords de l'OCSAN. Deux Parties ont fourni des articles: le Canada et l'Union européenne. Les Etats-Unis n'ont pas effectué de rapport puisqu'ils n'ont aucune pêcherie de saumon atlantique.

- 7.2 Un représentant du Canada (M. Gérald Chaput) a présenté un aperçu des MSFs du Canada, NAC(18)04. Ces pêcheries de subsistance (alimentaires, sociales et cérémoniales) sont opérées dans des zones côtières et d'estuaire du Labrador par des groupes autochtones. La gestion de ces pêcheries inclut un certain nombre de contrôles liés à l'équipement, les saisons, les fermetures hebdomadaires, le marquage de carcasses de saumon récolté, un programme d'enregistrement pour rapporter les prises, une limite sur le total des prises en utilisant des marquages et une interdiction des ventes. Les prises annuelles rapportées entre 2000 et 2017 varient de 15.6 à 42.4 t; la prise en 2017 est de 39.5 t. Un échantillonnage dans la pêcherie a été mené chaque année depuis 2006 par les communautés autochtones et une analyse génétique des échantillons prélevés a confirmé que la majeure partie du poisson prélevé dans la pêcherie (93% à 99%) est originaire du Labrador. Deux saumons originaires des États-Unis ont été identifiés dans des échantillonnages de 2017, suggérant que dans l'ensemble, 41 saumons (entre 9 – 113) ont été pris dans la pêcherie du Labrador.
- 7.3 En réponse à une question de la représentante des États-Unis, M. Chaput a confirmé que l'on s'attendait à ce que l'échantillonnage se poursuive et que des fonds soient disponibles pour appuyer l'analyse des échantillons de la pêcherie de 2018 et 2019. Le représentant des ONGs a reconnu la forte proportion de poissons du Labrador pêchés dans la pêcherie, mais a dit être préoccupé par le fait que certains des stocks au Labrador lui-même étaient inférieures aux limites de conservation et étaient potentiellement vulnérables à l'exploitation dans ces MSFs.
- 7.4 Le représentant de l'Union européenne a présenté un aperçu des MSFs de l'Union européenne, NEA(18)05. Il a souligné l'existence de différentes interprétations de ce qui constituait une MSF et qu'un certain nombre des MSFs restantes de l'UE exploitent des stocks identifiés pour lesquels les limites de conservation sont atteintes. La pêcherie de la rivière Teno (Finlande) opère dans le bras principal de la rivière, mais exploite un certain nombre de populations génétiquement différentes de différentes populations tributaires. Il existe une MSF unique dans l'estuaire de l'Adour (Union européenne – France), deux MSFs en Union européenne – Irlande et trois en Union européenne – Royaume Uni (Angleterre et Pays de Galles). Les pêcheries côtières en Union européenne – Suède et Union européenne – Royaume Uni (Ecosse) ont récemment été fermées et il n'y a pas de MSFs en Union européenne – Royaume Uni (Irlande du Nord), en Union Européenne – Allemagne, en Union européenne Espagne ou en Union européenne – Portugal. Les prises dans ces pêcheries en 2017 étaient Teno (30 t.), Union européenne (France (6 t.), Union européenne – Irlande (2.9 t.) et Union européenne – Royaume Uni (Angleterre et Pays de Galles) (36 t).
- 7.5 Concernant les récents changements en matière de gestion, le représentant de l'Union européenne a indiqué que les nouvelles réglementations de l'Union européenne – Finlande ont entraîné une réduction de 30% de pression de la pêche sur les stocks les plus faibles. Aucuns changements de gestion n'ont eu lieu en Union européenne – France et en Union européenne – Irlande, mais l'échantillonnage génétique dans les pêcheries irlandaises a confirmé que les pêcheries en question exploitaient presque exclusivement des stocks locaux bien supérieurs aux besoins de conservation. Au Union européenne – Royaume-Uni (Angleterre et Pays de Galles), l'élimination de la pêcherie côtière anglaise se poursuit en vertu d'un nouvel ordre de limitation de filets et une série de mesures (élimination progressive et limites sur les prises) sont en place pour réduire l'exploitation de la pêcherie dans l'estuaire du Severn. Dans la pêcherie de la côte Nord-est de l'Angleterre, l'élimination des filets dérivants et de plage se poursuit. Des propositions visant à fermer la pêcherie au filet dérivant ont été étudiées dans le

cadre d'une série de nouvelles mesures nationales visant à réduire l'exploitation en Union européenne – Royaume-Uni (Angleterre) et leur application avait été initialement proposée pour 2018. Cela avait été reporté. D'autres mesures nationales ont été étudiées en Union européenne – Royaume-Uni (Pays de Galles). Les mesures nationales développées de manière indépendante en Union européenne – Royaume-Uni (Angleterre) et en Union européenne – Royaume-Uni (Pays de Galles) ont proposé une série de nouvelles restrictions allant de la fermeture des pêcheries, au fait de rendre obligatoire ou d'augmenter les niveaux de pêche avec remise à l'eau. Si elles sont approuvées, ces mesures devraient s'appliquer à partir de 2019.

- 7.6 En réponse à une question du représentant de la DFG, le représentant de l'Union européenne a indiqué que le total des prises de saumon dans les MSFs dans les États membres de l'UE était d'environ 75 t, il a cependant réitéré la nature très différente des MSFs signalés.

8. Mesures de réglementation

- 8.1 Lors de la réunion d'inter-session de Portland, la Commission a examiné un projet de cadre pour une éventuelle nouvelle mesure réglementaire relative à la pêche de saumon atlantique au Groenland occidental. Ce projet a fait l'objet d'un développement ultérieur grâce à des discussions informelles entre les responsables de délégations.
- 8.2 Le Président a déposé le projet de mesure réglementaire proposée pour 2018 à 2020, WGC(18)06rev. Il a reconnu les efforts importants déployés par les Parties pour développer ce document. La Commission a examiné le projet de mesure scrupuleusement. Le projet de mesure réglementaire proposée a été approuvé par les Parties, sous réserve de corrections typographiques mineures. En réponse à un point de clarification soulevé par la représentante des États-Unis, le représentant de la DFG a affirmé que les exigences concernant les rapports, énoncées au paragraphe 4 du projet de mesure réglementaire sur la notification des résultats de la pêche, incluraient une référence à la surveillance et au contrôle, et d'autres dispositions de la mesure de réglementation.
- 8.3 Le représentant des ONGs a demandé une clarification sur le paragraphe 8 (relatif à la vente de saumon par des pêcheurs professionnels titulaires) et si la vente ne serait désormais autorisée que sur les marchés à ciel ouvert. Le représentant de la DFG a clarifié que cela serait le cas et qu'il ne sera pas permis de vendre à d'autres institutions. Le représentant des ONGs a par conséquent suggéré que le mot 'seulement' soit inséré dans cette disposition pour clarifier ce point. Cette suggestion a été acceptée.
- 8.4 Le Canada et l'Union européenne ont reconnu l'esprit de coopération et les progrès réalisés, et les Parties ont accepté la nouvelle mesure réglementaire (WGC(18)11) (Annexe 8). La représentante des États-Unis a également reconnu l'esprit de coopération que les membres de la Commission du Groenland occidental ont apporté aux réunions pendant la semaine. Elle estime que des progrès importants ont été réalisés grâce à l'élaboration de cette nouvelle mesure réglementaire. Elle pense que le quota de 30 t dépasse la limite durable pour ce complexe de stocks, mais que les États-Unis sont encouragés par les mesures rigoureuses de surveillance et de contrôle que la DFG a acceptées. L'augmentation de ces mesures de gestion et de contrôle renforcera encore la gestion de cette pêche et donneront à tous les membres de la Commission une confiance accrue dans le niveau de capture du poisson. Il fournira également au CIEM de meilleures données nécessaires pour évaluer avec précision les impacts de cette pêche sur la productivité du complexe de stock. De meilleures données permettent

une meilleure compréhension, ce qui se traduira par une meilleure gestion à l'avenir. Elle a toutefois réitéré que les États-Unis sont encouragés par les progrès réalisés dans le cadre de cette nouvelle mesure réglementaire et se réjouit de continuer à travailler avec la DFG et d'autres membres de la Commission du Groenland occidental au profit de la ressource.

- 8.5 Le représentant de la DFG a reconnu le dialogue constructif entre les Parties pour convenir de la nouvelle mesure de réglementation et a indiqué que le travail commencerait maintenant pour concrétiser les changements à temps pour le début de la pêche de 2018.
- 8.6 Le représentant des ONGs a accueilli l'accord par les Parties de la nouvelle mesure de réglementation et les améliorations évidentes des nouvelles dispositions de suivi et de contrôle. Il est cependant déçu que le quota convenu par la Commission est plus élevé que les prises rapportées au cours de 2 dernières années étant donné que les stocks concernés restent menacés et compte tenu des informations du CIEM.
- 8.7 Le Président a félicité les Parties de s'être mises d'accord sur une nouvelle mesure de réglementation, soulignant les avantages d'un dialogue constructif et coopératif.

9. Echantillonnage dans la pêche du Groenland occidental

- 9.1 Le Programme d'échantillonnage de la pêche du Groenland occidental fournit des données biologiques importantes pour les évaluations de stocks menées par le CIEM qui informent les décisions de gestion fondées sur la science pour cette pêche. Les Parties membres de la Commission du Groenland occidental ont coopéré au cours des trente dernières années pour rassembler ces données biologiques.
- 9.2 Le coordinateur des échantillonnages du Groenland, M. Tim Sheehan (Etats-Unis), a confirmé que les Parties avaient collaboré pour concrétiser le programme en 2017, certaines fournissant des scientifiques chargés des prélèvements et d'autres contribuant au traitement et à l'analyse d'échantillons. Le programme a été réalisé avec succès et les résultats mis à la disposition du CIEM pour qu'ils soient étudiés par le Groupe de travail sur le saumon de l'Atlantique Nord.
- 9.3 M. Sheehan a aussi noté qu'il a discuté les dispositions du programme d'échantillonnage suggéré pour 2018 avec les membres de la Commission et que tous ont signifié leur volonté de contribuer à la poursuite du programme conformément aux modalités antérieures. La Commission a adopté un Accord d'échantillonnage de pêche du Groenland occidental pour 2018, WGC(18)10 (Annexe 9).

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

- 10.1 Le Président a annoncé que le gagnant du prix de la Commission du Groenland occidental de £1,000 du Programme incitatif au renvoi des étiquettes de l'OCSAN était M. Qulutannuaq Møller, Maniitsoq, Groenland. L'étiquette gagnante avait été appliquée sur un saumoneau d'écloserie relâché à Delphi sur la rivière Bundorrragha, dans le Comté Mayo, Irlande le 29 avril 2016. Il a été recapturé le 29 septembre 2017 à Maniitsoq, Groenland occidental, dans la division 1C de l'OPANO. La Commission a présenté ses félicitations au gagnant.
- 10.2 En réponse à une question des ONG, M. Sheehan a signalé que le nombre d'étiquettes renvoyées du Groenland et incluses dans le tirage au sort variait entre 3 ou 4 dans

certaines années à peut-être 30 - 40 dans d'autres années. Le nombre de retours d'étiquettes a augmenté depuis l'inclusion des anciennes étiquettes.

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

- 11.1 La demande d'avis scientifique du CIEM établie par le Comité scientifique permanent concernant la zone de la Commission du Groenland occidental a été approuvée par le Conseil, CNL(18)11 (Annexe 10).

12. Divers

- 12.1 Aucune autre question n'a été soulevée.

13. Date et lieu de la prochaine session

- 13.1 La Commission a convenu de tenir sa prochaine session annuelle à la même période et lieu que la trente-sixième session annuelle de l'OCSAN.

14. Compte rendu de la session

- 14.1 La Commission a accepté un compte rendu de la session.

15. Clôture de la session

- 15.1 Le Président a remercié les Parties et observateurs pour leurs contributions et a clôturé la trente-cinquième session annuelle de la Commission du Groenland occidental.

Note : une liste des articles de la Commission du Groenland occidental est incluse en Annexe 11.

List of Annexes

- Annex 1 Opening Statement submitted by the United States to the West Greenland Commission
- Annex 2 List of participants at the Thirty-Fifth Annual Meetings of the Council and Commissions of NASCO
- Annex 3 Agenda, WGC(18)02
- Annex 4 Presentation of the ICES Advice for the West Greenland stocks to the Commission WGC(18)05
- Annex 5 Report of the Portland Inter-Sessional Meeting WGCIS(18)23
- Annex 6 Summary of the reports on the Greenland Salmon Fishery in 2015, 2016 & 2017 (tabled by Greenland) WGC(18)07
- Annex 7 Working Papers to ICES on the Review of Phone Surveys WGC(18)13
- Annex 8 Multi-Annual Regulatory Measure for Fishing for Atlantic Salmon at West Greenland WGC(18)11
- Annex 9 West Greenland Fishery Sampling Agreement, 2018, WGC(18)10
- Annex 10 Request for Scientific Advice from ICES, CNL(18)11
- Annex 11 List of West Greenland Commission Papers

US Opening Statement for the West Greenland Commission

Chair McLean, Secretary Hatfield, Assistant Secretary Robinson, distinguished delegates, ladies and gentlemen:

The United States has been looking forward to this WGC meeting to continue to work with our partners to develop a new regulatory measure for the West Greenland fishery.

We appreciate the work the Members have put in over the past few months, especially at Sunday's inter-sessional meeting, which will facilitate our work over the next few days. Our collective efforts on Sunday have put us in an excellent position to ensure that any new regulatory measure strengthens the management of the West Greenland salmon fishery to balance, to the extent possible, stock conservation needs with an internal use fishery.

The United States looks forward to working with all the Parties, in the usual spirit of co-operation of the Commission, toward agreement on a binding regulatory measure for the West Greenland salmon fishery consistent with the NASCO Convention.

List of Participants

* Denotes Head of Delegation

CANADA

*Mr Serge Doucet <i>Serge.Doucet@dfo-mpo.gc.ca</i>	<u>Representative</u> Fisheries and Oceans Canada, New Brunswick
Mr Carl McLean <i>carl_mclean@nunatsiavut.com</i>	<u>Representative</u> Nunatsiavut Government, Happy Valley - Goose Bay, Newfoundland & Labrador
Mr Tony Blanchard <i>tony.blanchard@dfo-mpo.gc.ca</i>	Fisheries and Oceans Canada, St John's, Newfoundland & Labrador
Mr Frédéric Butruille <i>frederic.butruille@dfo-mpo.gc.ca</i>	Fisheries and Oceans, Canada
Mr John Campbell <i>John.Campbell@dfo-mpo.gc.ca</i>	Fisheries and Oceans Canada, Ontario, Canada
Dr Julien April <i>julien.april@mffp.gouv.qc.ca</i>	Ministère des Forêts de la Faune et des Parcs du Québec, Québec
Mr Doug Bliss <i>doug.bliss@dfo-mpo.gc.ca</i>	Fisheries and Oceans Canada, Moncton, New Brunswick
Ms Kathy Brewer-Dalton <i>Kathy.Brewer-Dalton@gnb.ca</i>	Agriculture, Aquaculture and Fisheries, New Brunswick, Canada
Mr Gérald Chaput <i>gerald.chaput@dfo-mpo.gc.ca</i>	Fisheries and Oceans Canada, Moncton, New Brunswick
Ms Shelley Denny <i>shelley.denny@uinr.ca</i>	Unama'ki Institute of Natural Resources, Eskasoni Nova Scotia
Ms Patricia Edwards <i>patricia.edwards@dfo-mpo.gc.ca</i>	Fisheries and Oceans Canada, Moncton, New Brunswick
Ms Susan A. Farquharson <i>s.farquharson@atlanticfishfarmers</i>	Atlantic Canada Fish Farmers Association, Letang, New Brunswick
Ms Kate Johnson <i>kate.johnson@dfo-mpo.gc.ca</i>	Fisheries and Oceans, Ottawa, Ontario
Mrs Bernice Johnstone	New Brunswick Department of Energy & Resource

bernice.johnstone@gnb.ca
Mrs Justine Mannion
justine.mannion@dfo-mpo.gc.ca

Development, Miramichi
Fisheries and Oceans, Ottawa, Canada

Mr Carl Peter Marshall
carlpeter@efwc.ca

Eskasoni Fish and Wildlife, Nova Scotia

Mr Alan McNeill
mneilla@gov.ns.ca

Nova Scotia Fisheries and Aquaculture, Pictou, Nova Scotia

Mr Robert Otto
rotto@asf.ca

Atlantic Salmon Federation, New Brunswick, Canada

Dr Martha Robertson
martha.robertson@dfo-mpo.gc.ca

Fisheries and Oceans Canada, St.Johns,
Newfoundland and Labrador

Mr Todd Russell
trussell@nunatukavut.ca

Nunatukavut Community Council, Canada

Ms Patricia Saulis
psaulis2@yahoo.ca

Maliseet Nation Conservation Council, New Brunswick

Mr Craig Taylor
craig.taylor@torngatsecretariat.ca

Torngat Secretariat, Happy Valley - Goose Bay,
Newfoundland and Labrador

Mr Bill Taylor
btaylor@asf.ca

Atlantic Salmon Federation, Canada

DENMARK (IN RESPECT OF THE FAROE ISLANDS AND GREENLAND)

*Mr Tommy Petersen
TommyP@uvmr.fo

Representative
Faroese Ministry of Foreign Affairs and Trade,
Tinganes, Faroe Islands

*Mr Emanuel Rosing
emro@nanoq.gl

Representative
Ministry of Fisheries, Hunting & Agriculture, Nuuk,
Greenland

Mr Tønnes Berthelsen
kaka@knapk.gl

KNAPK, Nuuk, Greenland

Mr John Biilmann
johb@nanoq.gl

Ministry of Fisheries and Hunting, Nuuk, Greenland

Mr Jóannes Hansen
joannesv@tinganes.fo

President of NASCO
Prime Minister's Office, Torshavn, Faroe Islands

Ms Birita i Dali
bird@nanoq.gl

Ministry of Fisheries and Hunting, Nuuk, Greenland

EUROPEAN UNION

<i>*Dr Arnaud Peyronnet arnaud.peyronnet@ec.europa.eu</i>	<u>Representative</u> European Commission, Brussels, Belgium
<i>Mr Bernard Blazkiewicz bernard.blazkiewicz@ec.europa.eu</i>	<u>Representative</u> European Commission, Brussels, Belgium
<i>Dr Ciaran Byrne ciaran.byrne@fisheriesireland.ie</i>	Inland Fisheries Ireland, Dublin, Ireland
<i>Mr Håkan Carlstrand hakan.carlstrand@havochvatten.se</i>	Swedish Agency for Marine and Water Management, Gothenburg, Sweden
<i>Mr Simon Dryden simon.dryden@gov.scot</i>	Marine Scotland, Edinburgh, Scotland, UK
<i>Ms Delyth Dyne delyth.dyne@defra.gsi.gov.uk</i>	Department for Environment, Food and Rural Affairs UK
<i>Dr Dennis Ensing dennis.ensing@afbini.gov.uk</i>	Agri-Food & Biosciences Institute Northern Ireland, Belfast, Northern Ireland, UK
<i>Dr Jaakko Erkinaro jaakko.erkinaro@luke.fi</i>	Natural Resources Institute Finland (Luke), Oulu, Finland
<i>Mr Clemens Fieseler clemens.fieseler@ble.de</i>	Federal Agency for Agriculture and Food, Bonn, Germany
<i>Dr Cathal Gallagher cathal.gallagher@fisheriesireland.ie</i>	Inland Fisheries Ireland, Dublin, Ireland
<i>Dr Paddy Gargan paddy.gargan@fisheriesireland.ie</i>	Inland Fisheries Ireland, Dublin, Ireland
<i>Mr Jeff Gibbons Jeff.Gibbons@gov.scot</i>	Marine Scotland, Edinburgh, Scotland, UK
<i>Mr Tapio Hakaste tapio.hakaste@mmm.fi</i>	Ministry of Agriculture and Forestry, Helsinki, Finland
<i>Mr Denis Maher denis.maher@dcecr.gov.ie</i>	Department of Communications, Energy and Natural Resources, Cavan, Ireland
<i>Mr John McCartney john.mccartney@loughs-agency.org</i>	Loughs Agency, Derry, Northern Ireland
<i>Dr Michael Millane michael.millane@fisheriesireland.ie</i>	Inland Fisheries Ireland, Dublin, Ireland

Dr Niall Ó Maoiléidigh
niall.omaileidigh@marine.ie

Marine Institute, Newport, Ireland

Ms Christiane Pilz
christiane.pilz@bmel.bund.de

Bundesministerium für Ernährung und
Landwirtschaft, Berlin, Germany

Mr Ian Russell
ian.russell@cefias.co.uk

Centre for Environment, Fisheries and Aquaculture
Science, Lowestoft, England, UK

Mr Lawrence Talks
*lawrence.talks@
environment-agency.gov.uk*

Environment Agency, Winchester, England, UK

Ms Bénédicte Valadou
benedicte.valadou@onema.fr

ONEMA, Direction Générale, Vincennes, France

NORWAY

*Mr Raoul Bierach
raoul.bierach@miljodir.no

Representative
Norwegian Environment Agency, Trondheim

Mr Helge Dyrendal
helge.axel.dyrendal@miljodir.no

Norwegian Environment Agency, Trondheim

Dr Peder Fiske
peder.fiske@nina.no

Norwegian Institute for Nature Research, Trondheim

Ms Heidi Hansen
heidi.hansen@miljodir.no

Norwegian Environment Agency

Mr Benjamin Sæverås
bs@kld.dep.no

Ministry of Climate and Environment, Oslo

RUSSIAN FEDERATION

*Dr Alexander Khatuntsov
Khatuntsov.a@tsuren.ru

Representative
Federal State Budgetary Establishment, Moscow

Ms Alina Nikolaeva
nikolaeva@pinro.ru

Knipovich Polar Research Institute of Marine
Fisheries and Oceanography (PINRO), Murmansk

Dr Sergey Prusov
prusov@pinro.ru

Knipovich Polar Research Institute of Marine
Fisheries and Oceanography (PINRO), Murmansk

Mr Victor Rozhnov
rozhnov@bbtu.ru

Barentsevo-Belomorskoe Territorial Department,
Murmansk

Mr Gennady Zharkov
gzharkov@gmail.com

Russian Salmon Association, Moscow, Russia

USA

*Ms Kimberly Damon-Randall
kimberly.damon-randall@noaa.gov

Representative
National Marine Fisheries Service, Gloucester,
Massachusetts

Mr Stephen Gephard
steve.gephard@ct.gov

Representative
Department of Energy and Environmental Protection,
Inland Fisheries Division, Old Lyme, Connecticut

Mr Patrick Keliher
patrick.keliher@maine.gov

Representative
Department of Marine Resources, Maine, USA

Ms Kimberly Blankenkemper
kimberly.blankenkemper@noaa.gov

National Marine Fisheries Service, Silver Spring,
Maryland

Ms Julia Crocker
julie.crocker@noaa.gov

National Marine Fisheries Service, Gloucester,
Massachusetts

Ms Alexis Ortiz
OrtizAJ@state.gov

US Department of State, Washington DC

Mr Rory Saunders
rory.saunders@noaa.gov

National Marine Fisheries Service, Orono, Maine

Mr Tim Sheehan
tim.sheehan@noaa.gov

National Marine Fisheries Service, Woods Hole,
Massachusetts

Ms Julie Williams
julie.williams@noaa.gov

National Marine Fisheries Service, Gloucester,
Massachusetts

Ms Rebecca Wintering
WinteringRJ@state.gov

US Department of State, Washington DC

STATES NOT PARTY TO THE CONVENTION

France (in respect of St Pierre and Miquelon)

*Ms Christiane Laurent-Monpetit
*christiane.laurent-monpetit@
outre-mer.gouv.fr*

Ministère des Outre-Mer, Paris, France

Mr Herlé Goraguer
hgorague@ifremer.fr

IFREMER, Saint-Pierre and Miquelon, France

Marie-Lénaïck Tabart
*Marie-lenaick.tabart@
equipement-agriculture.gouv.fr*

Direction des Territoires, de l'Alimentation et de la
Mer

INTER-GOVERNMENTAL ORGANIZATIONS

Dr Cathal Gallagher
cathal.gallagher@fisheriesireland.ie

European Inland Fisheries and Aquaculture Advisory
Commission

Mr Fred Kingston
fkingston@nafo.int

Northwest Atlantic Fisheries Organization

Dr Suam Kim
suam.kim@pknu.ac.kr

North Pacific Anadromous Fish Commission,
Korea

Dr Martha Robertson
martha.robertson@dfo-mpo.gc.ca

International Council for the Exploration of the Sea

Mr Mark Saunders
m.saunders@yearofthesalmon.org

North Pacific Anadromous Fish Commission,
Vancouver, Canada

NON-GOVERNMENT ORGANIZATIONS

** Denotes NGO Co-Chairs

Association Internationale de Défense du Saumon Atlantique, France

Mr Philippe Méry

philippemery@yahoo.fr

Atlantic Salmon Federation, Canada

Mr Dave Meerburg

dmeerburg@asf.ca

Dr Stephen Sutton**

ssutton@asf.ca

Atlantic Salmon Federation, USA

Mr Andrew Goode

andy@asf.comcastbiz.net

Mr John Burrows

john@asf.comcastbiz.net

Atlantic Salmon Conservation Schools Network, UK

Mr Donald R. Sprangers

sd.sprangers@gmail.com

Atlantic Salmon Trust, UK

Professor Ken Whelan

ken.whelan@hotmail.com

Connecticut River Salmon Association

Mr Thomas Chrosniak

president@ctriversalmon.org

Downeast Salmon Federation

Dwayne Shaw
George Leinbaugh

dwayne@mainesalmonrivers.org
gline8295@gmail.com

Federation of Irish Salmon and Sea-Trout Anglers, Ireland

Mr Noel Carr
Mr Michael Stinson

dgl1@indigo.ie
mick.stinson@hotmail.com

Fédération québécoise pour le saumon atlantique

Mr François Caron

fcaron@fjsa.ca

Fisheries Management Scotland, UK

Dr Alan Wells

alan@fms.org

Institute of Fisheries Management, UK

Dr Nigel Milner

n.milner@apemltd.co.uk

Norske Lakseelver, Norway

Mr Torfinn Evensen

torfinn@lakseelver.no

North Atlantic Salmon Fund US

Ms Nicole Johnson
Mrs Kateryna Rakowsky
Mr Ian Huschle

njohnson@grassycreekfoundation.org
kateryna@grassycreekfoundation.org
ihuschle@grassycreek.nl

Norwegian Association of Hunters and Anglers, Norway

Mr Oyvind Fjeldseth

o.f@njff.no

Salmon and Trout Conservation Scotland, UK

Mr Andrew Graham-Stewart

director@salmon-troutscotland.org

Salmon and Trout Conservation UK, UK

Mr William Hicks
Mr Paul Knight **

william.hix@btinternet.com
paul@salmon-trout.org

Sami Parliament, Norway

Ms Liss-Ellen Ramstad

liss-ellen.ramstad@samediggi.no

Scottish Anglers National Association, UK

Dr Andy Walker

andywalker231@aol.com

SECRETARIAT

hq@nasco.int

Dr Emma Hatfield
Ms Sarah Robinson
Ms Kim Gibson
Ms Vicky Newton
Ms Louise Forero

Secretary
Assistant Secretary
PA to the Secretary
PA
Information and Publications Assistant

SUPPORT STAFF

Mr Graham Goulette
Graham.Goulette@noaa.gov

NOAA Fisheries, USA

Mr Dan Kircheis
dan.kircheis@noaa.gov

NOAA Fisheries, USA

Kristen Bronger
kristen.bronger@noaa.gov

NOAA Fisheries, USA

WGC(18)08

Agenda

1. Opening of the Meeting
2. Adoption of the Agenda
3. Nomination of a Rapporteur
4. Election of Officers
5. ACOM Report from ICES on Salmon Stocks in the Commission Area
6. Report of the Inter-Sessional Meeting of the West Greenland Commission
7. Mixed-Stock Fisheries Conducted by Members of the Commission
8. Regulatory Measures
9. Sampling in the West Greenland Fishery
10. Announcement of the Tag Return Incentive Scheme Prize
11. Recommendations to the Council on the Request to ICES for Scientific Advice
12. Other Business
13. Date and Place of the Next Meeting
14. Report of the Meeting
15. Close of the Meeting

sal.2127.wgc

Atlantic salmon at West Greenland

Annex 4



Science for sustainable seas

Terms of Reference

4. With respect to Atlantic salmon in the West Greenland Commission area:
 - 4.1 describe the key events of the 2017 fisheries;
 - 4.2 describe the status of the stocks;
 - 4.3 provide catch options or alternative management advice for 2018-2020 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 update the Framework of Indicators used to identify any significant change in the previously provided multi-annual management advice.

4.1 Key Events 2017 Fishery

- Fishing for salmon allowed using hook, fixed gillnets, and driftnets along the entire coast of Greenland
- The quota for 2017 remained at 45 t
- Commercial fishery for internal use only with sales by licensed fishers allowed to hotels, institutions, and local markets
- No sales to factories were allowed in 2017
- People fishing for private consumption only are not required to have a licence, but cannot sell salmon
- The fishing season opened on 15 August and closed on 1 November (one day late due to poor weather)

sal.2127.wgc: Figure 1



4.1 Key Events 2017 Fishery: Total Catch



- Total catch reported catch in 2017 was 28 t (similar to 27 t in 2016) (sal.2128.wgc: Table 1)
 - 55% Commercial (15.3 t, increased from 2016 catch of 8.7 t)
 - 45% Private Use (12.8 t, less than 18.4 t in 2016)
 - Private Use
 - 76% (9.7 t) licensed fishers
 - 24% (3.1 t) unlicensed fishers
- Unreported Catch
 - no quantitative approach
 - 10 t, previously reported by the Greenlandic authorities to account for private non-licensed fishers in smaller communities

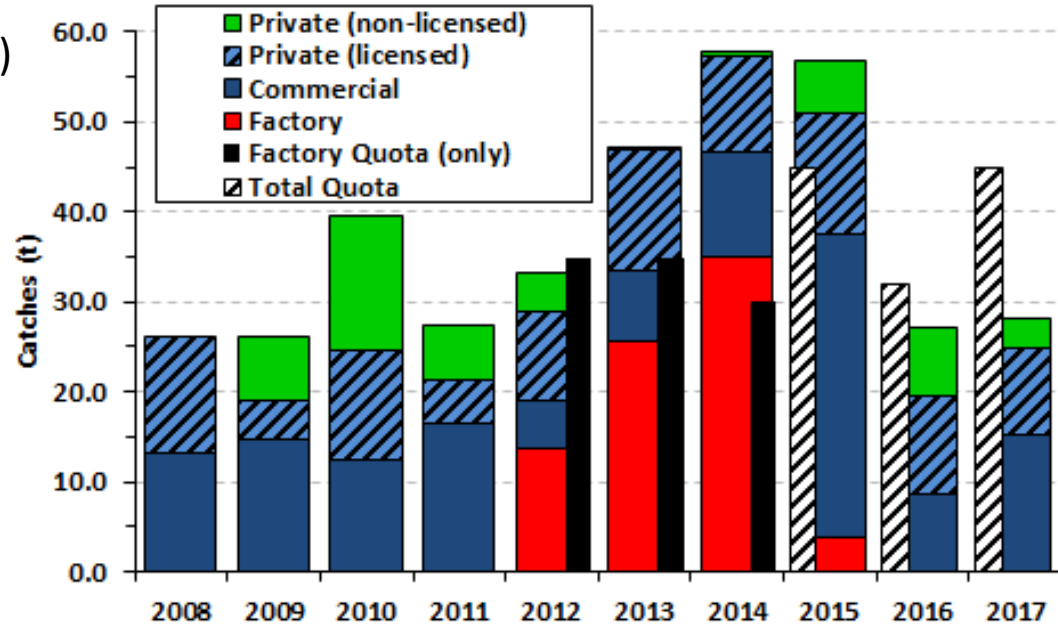
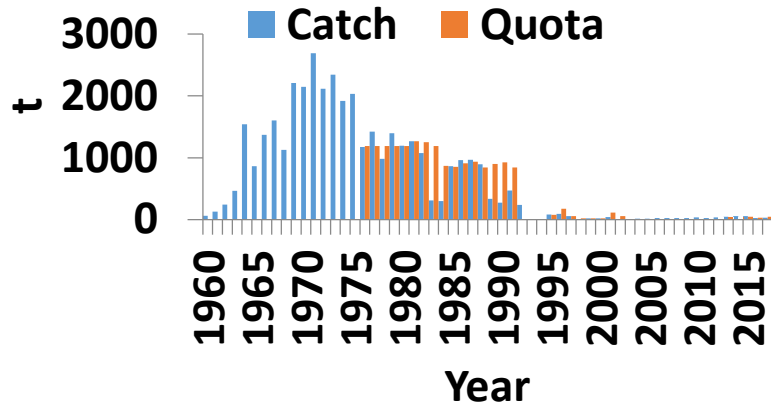
Licence type	Reported consumption type	Reported 2017 catch (t)	Reported 2016 catch (t)
Licensed	Commercial	15.3	8.6
	Private	9.7	10.8
Unlicensed	Commercial	0.0	0.1
	Private	3.1	7.6
All	Commercial	15.3	8.7
	Private	12.8	18.4
All	All	28.0	27.1

4.1 Key Events 2017 Fishery: Total Catch



- Landings reported across all NAFO divisions (sal.2127.wgc: Tables 3 and 4, Figure 4)

- 0.3 t ICES Division 14 (East Greenland)



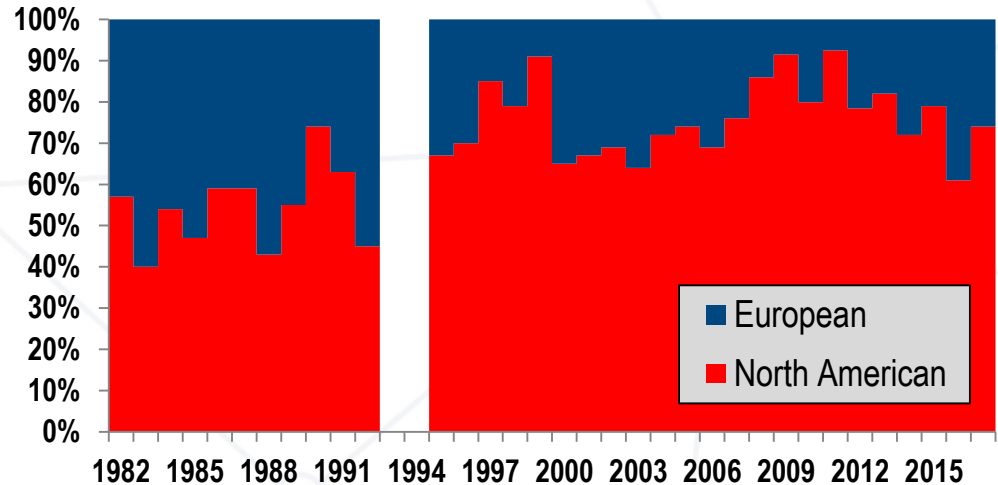
4.1 Key Events 2017 Fishery: Phone Survey

- Phone survey conducted after the fishing season from 2014 to 2016
 - Unreported catches identified and added to adjusted landings:
 - 2014: 12.2 t
 - 2015: 5.0 t
 - 2016: 4.2 t
- 2017 phone survey conducted with 9 fishers
 - Results not considered adequate to adjust the reported landings

4.1 Key Events 2017 Fishery: Biological Characteristics



- International sampling programme continued in 2017
 - 1371 samples from four communities representing four of the six NAFO divisions
 - Continent of Origin (DNA analyses, sal.2127.wgc: Figure 3)
 - North American: 74.4%
 - European: 25.6%
- North America – 12 Regions of Origin (sal.2127.wgc: Table 7)
 - Three regions dominated samples:
 - Gulf of St Lawrence: 31%
 - Gaspé Peninsula (Québec): 31%
 - Labrador: 14%
 - Similar results for 2015 and 2016 samples



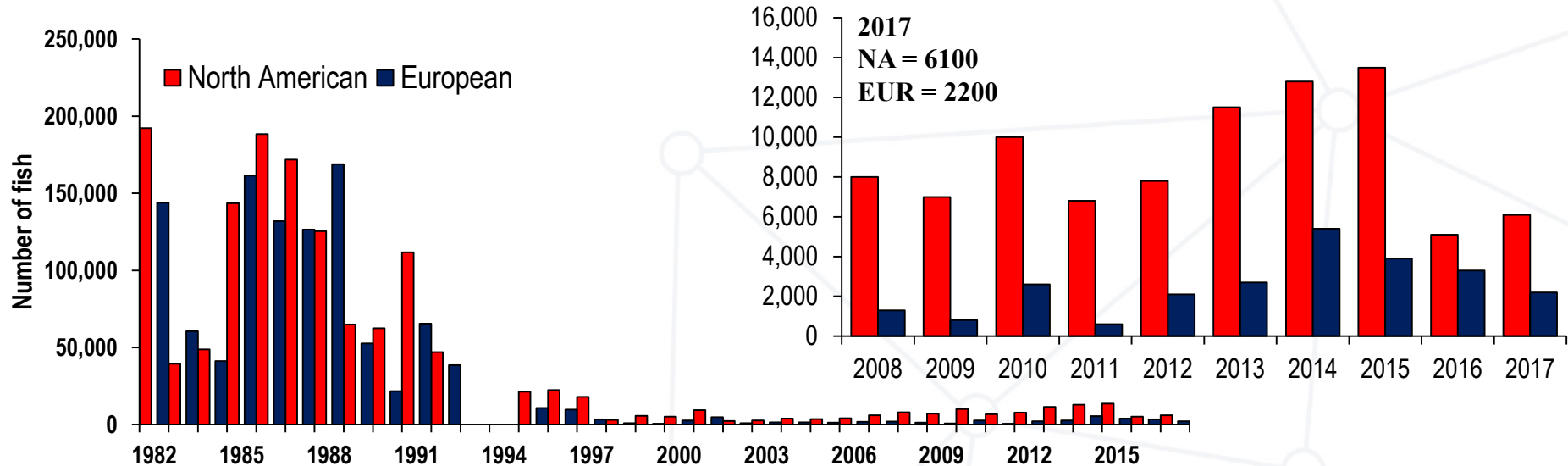
4.1 Key Events 2017 Fishery: Biological Characteristics



- Estimated number of salmon harvested (sal.2127wgc: Figure 4)

Number of Salmon = Total Catch kg ÷ Average Weight of Individual Salmon Harvested kg

- North American: 6100 (20.9 t)
- European: 2200 (7.2 t)



4.2 Status of Stocks: Multi-Year Catch Agreement 2015-2018

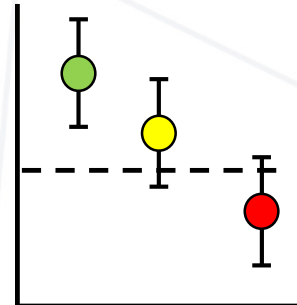
- NASCO 2015 multi-year regulatory agreement for the West Greenland salmon fishery (http://www.nasco.int/pdf/2015%20papers/WGC_15_21.pdf)
 - 2018 marks the third and final year of this agreement
 - A full assessment of stock status and catch advice was conducted to inform a potential new multi-year agreement

4.2 Status of Stocks: Management Advice

- Management advice for West Greenland fishery based on non-maturing 1SW salmon from North America (NAC) and Southern-Northeast Atlantic (S-NEAC)
 - Pre-Fishery Abundance (PFA) relative to Spawner Escapement Reserve (SER)
 - SERs - CLs adjusted for natural mortality (3% per month at sea)
 - Spawners (2 SW NAC and MSW S-NEAC) relative to Conservation Limits (CLs)

Risk Assessment Framework

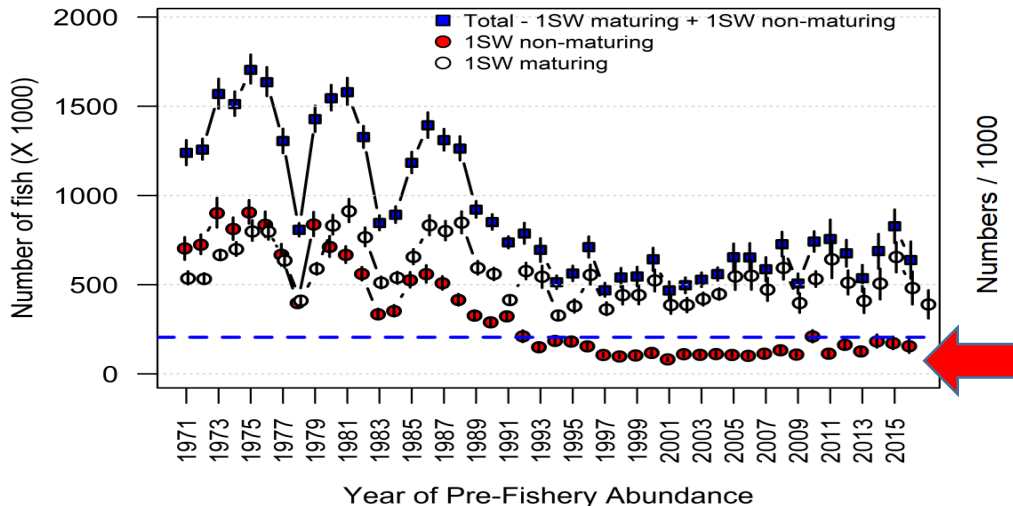
- Full Reproductive Capacity :
 - lower bound of the 90% confidence interval of the estimate above reference point
 - equivalent to a probability of at least 95% of meeting reference point
- At Risk of Suffering Reduced Reproductive Capacity:
 - lower bound of the confidence interval is below reference point, but the midpoint is above
- Suffering Reduced Reproductive Capacity:
 - midpoint is below reference point



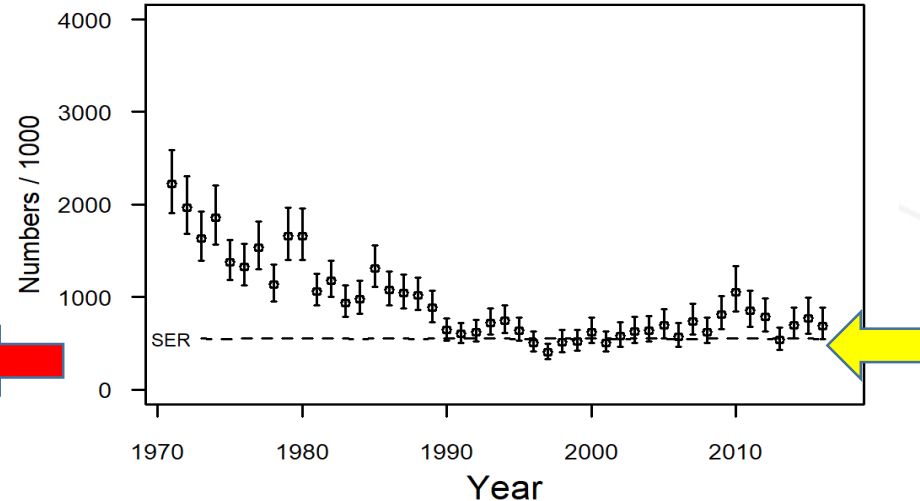
4.2 Status of Stocks: Pre-Fishery Abundance (PFA)

- PFA estimates of non-maturing 1SW salmon suggest continued low abundance (sal.2127.wgc: Figure 6 and 7):
 - North American – suffering reduced reproductive capacity
 - Southern-NEAC – at risk of suffering reduced reproductive capacity

North America

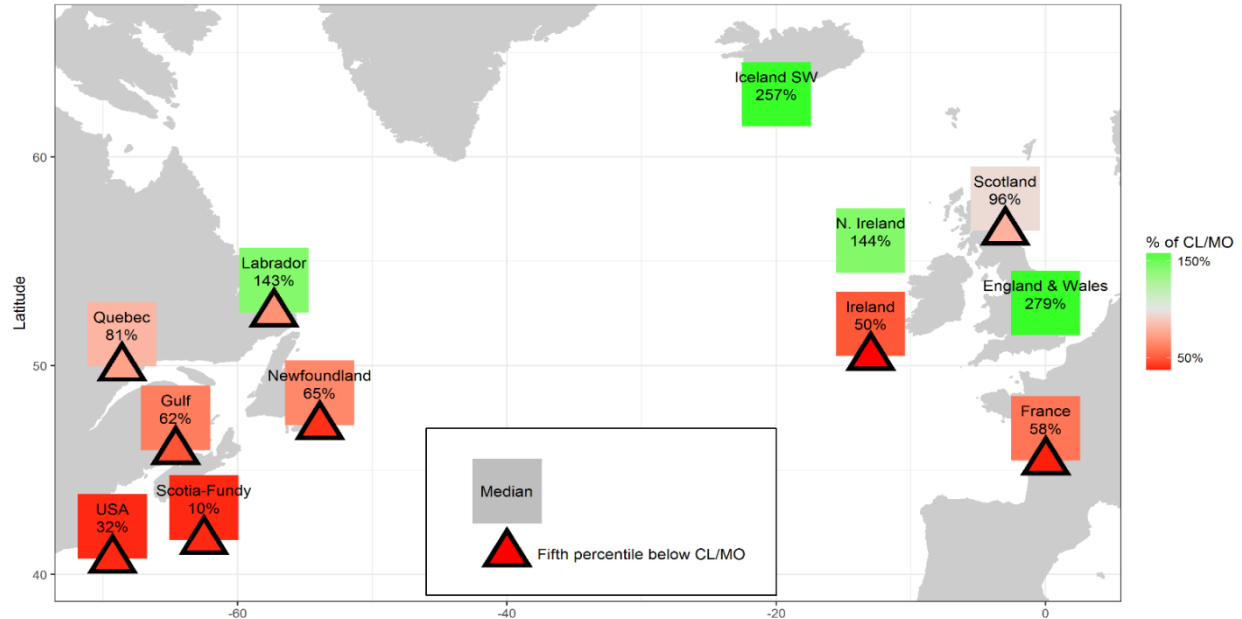


NEAC-S Non-mat. 1SW PFA



4.2 Status of Stocks: Spawners

- 2017 Spawners (sal.2127.wgc: Figure 8)
- Median estimate < CLs
 - 5 of 6 North American 2SW stocks
 - 3 of 6 Southern-NEAC MSW stocks



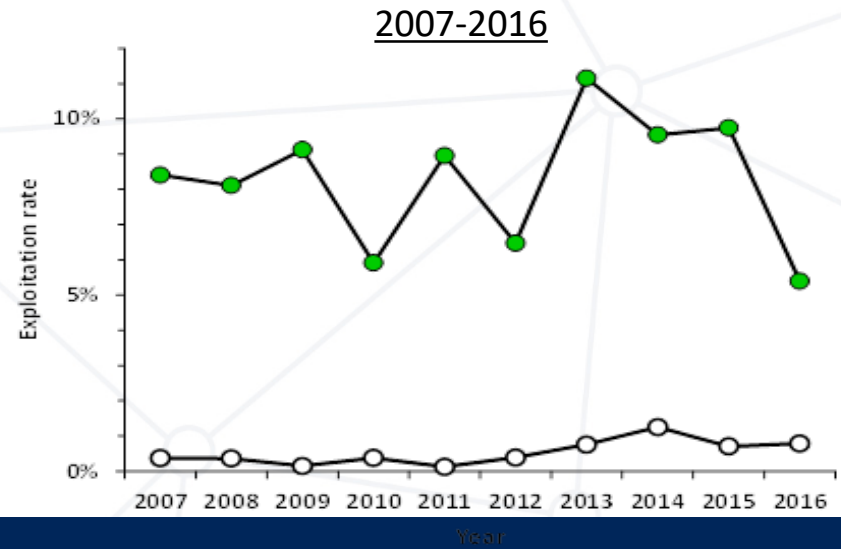
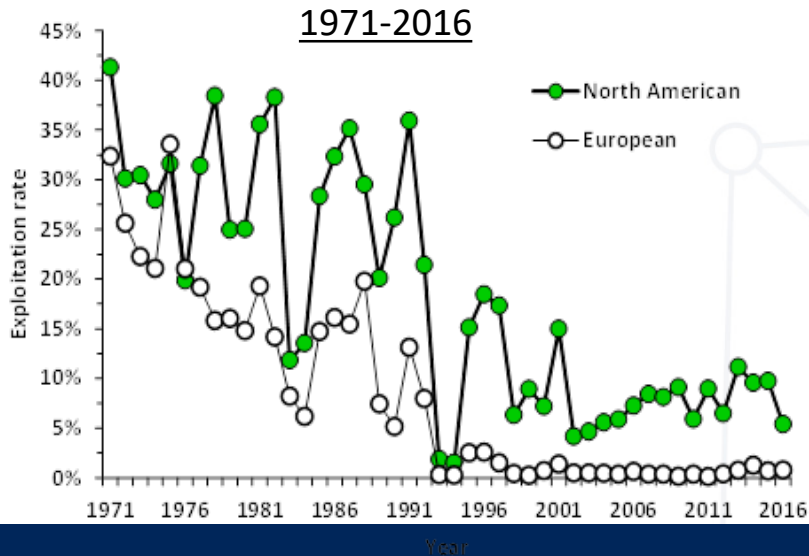
> 100 Full reproductive capacity

> 100 Risk suffering reduced reproductive capacity

< 100 Suffering reduced reproductive capacity

4.2 Status of Stocks: Exploitation Rate

- Exploitation rate (sal.2127.wgc: Figure 9)
 - = Greenland Catch \div Pre-Fishery Abundance (PFA)
- North America: 5.4% Northeast Atlantic: 0.8%
 - among lowest in time series



4.2 Status of Stocks: Summary

- Abundance of salmon within the West Greenland area is considered to be low compared to historical levels
- Broadly consistent with general pattern of decline in marine survival in most monitored stocks
- Despite major management changes and increasingly more restrictive fisheries, returns in many regions have remained near historical lows
- Factors other than fisheries constraining production

4.3 Catch Options



- ICES advises that, in line with the management objectives agreed by NASCO and consistent with the Maximum Sustainable Yield Approach (MSY), there are no mixed-stock fishery options at West Greenland for the fishing years 2018 to 2020
- In the absence of any fishing in the period 2018 to 2020, there is less than 75% probability (0 %) that the objectives could be met simultaneously (sal.2127.wgc: Table 8):
 - the probabilities of achieving the conservation limits for the four northern regions of North America are 9%-39% for three regions individually (Newfoundland, Québec and Gulf) (87%-89% for Labrador)
 - very low probabilities that the 2SW returns in the southern regions of North America (Scotia-Fundy and USA) will be sufficient to meet the stock rebuilding/management objectives (< 1%)
 - the probabilities of achieving the CLs for the Southern-NEAC MSW complex are < 55%

4.4 Framework of Indications (FWI)



- In the intermediate years of a multiyear catch agreement, an interim assessment is conducted to determine whether a full reassessment of stock status and new catch advice might be required
 - This assessment relies on a framework of indicators (FWI) that was updated in 2018 (sal.2127.wgc: Figure 9) (for details sal.27.neac_SA)
 - Update contains 22 indicator variables (e.g. marine survival rates and returns), represented by 14 rivers
 - No indicator variables were retained for the Labrador or Newfoundland areas
 - 15 indicator variables were explored for S-NEAC and only one met the qualifying criteria
- FWI can be applied for the next two years, in January 2019 and 2020, based on new assessment data in 2018 and 2019 (e.g. survival rate and returns) to evaluate the appropriateness of the advice

Relevant data deficiencies, monitoring needs, and research requirements

- Continue efforts to improve the Greenland catch reporting system
 - detailed catch and effort data from licensed and non-licensed fishers should be made available for analyses
- Continuation of the phone survey
 - develop standardized approach and include non-licensed fishers
- Continuation of the sampling programme
 - expanding the programme across the fishing season to ensure biological characteristics represent the entire catch
- In preparation for the next FWI update, a full suite of all potential input datasets for Southern-NEAC be evaluated against country-specific management objectives

(Full list for North Atlantic salmon is presented in Section 1.5 of the North Atlantic advice sal.oth.nasco)



WGCIS(18)23***Report of the Portland Inter-Sessional Meeting of the
West Greenland Commission of the North Atlantic Salmon Conservation
Organization******Holiday Inn by the Bay, Portland, Maine, USA******10 June 2018*****1. Opening of the Meeting**

- 1.1 The Chair of the West Greenland Commission (WGC), Mr Carl McLean (Canada), opened the meeting and welcomed participants to Portland and thanked the hosts (the United States) and the Secretariat for arranging the meeting.
- 1.2 No opening statements were made by representatives.
- 1.3 A list of participants at the meeting is attached as Annex 1.

2. Adoption of the Agenda

- 2.1 The Secretary proposed a minor change to the numbering format of the Agenda sub-items under item 7 which was accepted by the Members of the Commission. The representative of Denmark (in respect of the Faroe Islands and Greenland) (DFG) requested a change to the order of items under section 7 where item 7.2 *Identification and Review of the Options that may be Considered in a Possible Future Regulatory Measure* should be addressed before item 7.1 *Key Elements of Monitoring and Control Provisions that Parties Consider Important to be Implemented for the West Greenland Fishery*. The representative of the United States requested that items 7.1 and 7.2 should be considered in unison as there is likely to be considerable overlap between issues. The representative of Canada supported the proposal from the representative of DFG. The Chair advised that item 7.2 should be considered before item 7.1. No further changes to the Draft Agenda were suggested and the Commission adopted its Agenda, WGCIS(18)20, (Annex 2), incorporating the changes outlined herein.

3. Nomination of a Rapporteur

- 3.1 Dr Michael Millane (European Union) was appointed Rapporteur for the meeting.

4. Election of a Vice-Chair

- 4.1 The Commission's Vice-Chair, Ms Kim Damon-Randall (USA), had been elected at the Commission's Thirty-Third Annual Meeting, to serve until the end of the Thirty-Fifth Annual Meeting. However, Ms Damon-Randall was no longer able to act in that capacity given that she is the new Head of Delegation for the United States. The Commission therefore needed to elect a new Vice-Chair. The Commission elected Mr Steve Gephard (USA) to serve until the end of Ms Damon-Randall's term of office at the end of the Thirty-Fifth Annual Meeting, as nominated by the European Union (EU), seconded by Canada and additionally supported by DFG.

5. ACOM Report from ICES on Salmon Stocks in the Commission Area

- 5.1 The representative of ICES, Dr Martha Robertson, presented a report on the scientific advice on salmon stocks in the West Greenland Commission area, CNL(18)08rev.
- 5.2 The Chair and the representatives of the EU, DFG and the NGOs thanked the representative of ICES for the presentation, which is contained in document WGC(18)05. The Chair then asked the Members of the Commission and representative of the NGOs for comments / questions on the presentation from ICES.
- 5.3 The representative of the United States requested information on gear restrictions between the licensed and unlicensed fishermen and the number of nets commercial fishermen typically fish. The representative of ICES did not have this information available. The representative of DFG informed the Commission that commercial fishermen are allowed to use up to 20 drift nets. However, very few fishermen use drift nets to catch salmon and the gill nets attached to the shore are the principal method of fishing employed. The representative of DFG noted that the amount of gear used is an element of required reporting, but that he was unsure whether the data have been compiled from the reports. In response to the representative of the NGOs, the representative of DFG informed the Commission that unlicensed fishermen are only allowed to use a single net when fishing. In response to the representative of the United States, the representative of ICES did not have information available on how accurate the landing figures are from unlicensed private fishermen and noted that the phone survey to verify unreported catches was not conducted in 2017. The representative of DFG provided information on the approach for assigning catches to four categories of fishermen, namely: catches by licensed commercial fishermen typically sold to open air markets or restaurants; unlicensed commercial catches; and catches by both licensed and unlicensed fishermen for private consumption. This manner of catch categorisation commenced in 2016. The representative of the United States requested information on why reported catches and the number of unlicensed fishermen reporting catches have both decreased in recent years. The representative of DFG committed to seeking further details on the issues raised by the United States with the relevant authorities in Greenland and reporting back during the next WGC session.
- 5.4 In response to the representative of the EU, the representative of ICES clarified that the fishing season was extended to 1 November as inclement weather made it unsafe for fishermen to service nets and retrieve gear at the end of the officially-designated season on 31 October.
- 5.5 In response to a question from the Chair, the representative of ICES informed the Commission that there is currently limited scientific understanding of the main factors contributing to low marine survival.
- 5.6 The value and limitations of the phone survey to verify landings and estimate unreported catches were discussed. The representative of ICES informed the Commission that such approaches to estimate unreported catch are necessary in any fishery where there is incomplete reporting. There is always the need for catch validation, but with very high reporting rates (approaching 100%) alternative survey methods could be employed and would be aimed at verifying reported catches. The representative of the NGOs highlighted that a number of jurisdictions employ a salmon carcass tagging programme in their domestic fisheries to better quantify harvests. The representative of the United States noted that landings by unlicensed fishermen for private consumption are difficult to quantify and verify via the phone survey approach.

The representative of ICES responded that a complete register of all fishermen would be required to enable the quantification of this catch information.

6. Overview and Discussion of the 2018 West Greenland Inter-Sessional Activities

6.1 The Chair noted that there had been two previous Inter-Sessional Meetings of the Commission in 2018; one in Copenhagen and one via Conference Call. The reports of these meetings are contained in documents WGC(18)03 and WGC(18)04 respectively. He presented a brief summary of the information and issues considered at those meetings, noting the following:

Copenhagen Inter-Sessional Meeting (27 February – 1 March)

A report on the 2017 salmon fishery at West Greenland is annexed to WGC(18)03:

- the management measures implemented for the 2015 fishery had continued in 2016 and 2017;
- factory landings were not permitted in 2016 and 2017 and the export ban remained in force during the three years the regulatory measure was in force;
- the Executive Order on catch reporting (in place before the 2015 fishery) requiring salmon catch to be reported by number of fish as well as weight continued;
- the reports indicated a 2017 catch of 26.8 tonnes, with the vast majority taken in West Greenland;
- GFLK continued its increased focus on monitoring of the fishery and provided reporting templates to fishermen reminding them of the requirement to report landings daily or every time the nets are mended;
- there was also an information campaign for newspapers, TV and radio during the fishing season and weekly updates on the quota uptake were published;
- 630 catch reports were received, of which approximately 160 were from unlicensed private fishers;
- written responses to questions raised by the Members of the Commission during the Copenhagen Inter-Sessional Meeting were received and are contained in document WGCIS(18)07;
- with regards to implementing the Updated Plan for Implementation of Monitoring and Control Measures, the Commission was advised that efforts to ensure proper reporting from open air markets continued, and dialogue with the responsible municipalities was maintained in 2017. Most catch reports were received within the season, the license condition requiring that samplers be allowed to take samples of catches upon request remained in force and the NASCO sampling brochure was issued with each license and forwarded to open air markets;
- the licensing of private / non-professional fishermen had not been implemented, nor had the measure stating that failure to report catches will result in no license being issued for the following year(s), even in the event of zero catch;
- the representative of DFG planned to complete an evaluation of the current regulatory measure prior to the Annual Meeting;

- the representative of Canada updated the Commission on progress that had been made with co-ordination of enforcement activities in Canada. The representative of the NGOs noted that the six tenets self-assessment for Canada had been a Canada-wide view and failed to recognise differences in levels of compliance between the Provinces. There had also been many changes to the management of the fisheries in Canada in 2017 due to low stock abundance which may merit reporting. The representative of Canada advised the Commission that a reappraisal of the six tenets report submitted in 2017 had not been considered. Canada would provide further details at the Annual Meeting;
- the representative of the EU reported on developments related to the six tenets for UK (England and Wales) and Ireland;
- the representative of the United States reported on progress with the ‘Species in the Spotlight initiative’;
- the representative of the EU presented an account of monitoring and assessment procedures in Ireland, including the reliance on catch data derived from carcass tagging. The presentation highlighted the vital role that carcass tagging and logbooks provided in ensuring that scientists and managers had reliable data to inform decisions and facilitate dynamic annual management; and
- the Commission also discussed possible elements for inclusion in a new regulatory measure for the fishery. This was discussed in detail under Agenda item 7.

Conference Call Inter-Sessional (15 May), WGC(18)04

- written responses from DFG to the second set of questions, posed by the Members of the Commission after the first Inter-Sessional Meeting, were received. These are contained in document WGCIS(18)14. Four of the questions had not been answered as DFG considered them to represent internal matters;
- the representative of the United States noted that it wanted to understand the constraints DFG faced in implementing monitoring and control provisions in the fishery, noting that some requirements of the previous regulatory measure had not been implemented (e.g. licensing all fishers and penalties for non-reporting). The representative of the United States also expressed disappointment that a phone survey had not been carried out in 2017. The representative of DFG later explained that this was due to staffing issues; and
- The representative of DFG recognised that DFG now had three years’ experience of the new monitoring and control requirements and of the resources needed to deliver against these. DFG would be exploring these issues further before the Annual Meeting in preparation for the development of a possible new regulatory measure. The representative of DFG noted that there is a need to balance the management commitments associated with salmon, where catches are now relatively small, with the wider political agenda and other fishery management priorities. The representative of the United States recognised that current catches were relatively low, but that catches at the current level (e.g. 27 t) still posed a threat to endangered salmon stocks originating in other jurisdictions. The representative of the United States also highlighted that significant uncertainties remain about the size of the unreported catch, particularly from the currently unlicensed component of the fishery.

- 6.2 The representative of the United States expressed appreciation for the time and effort the Commission Members have made for the Inter-Sessional Meetings to date in 2018. The representative of the United States noted that DFG previously indicated they would be undertaking a thorough review of management and control efforts and phone surveys in preparation for the Annual Meeting and requested an update on this. The representative of DFG explained that this will be considered at the full Commission meeting.

7. Considerations of Elements of a Possible Future Regulatory Measure for the West Greenland Commission

The Chair reminded the Members of the Commission of the considerations in accordance with Article 9 of the NASCO Convention that need to be taken into account by the Commission when setting a new regulatory measure.

7.1 Identification and Review of the Options that may be Considered in a Possible Future Regulatory Measure

- 7.1.1 Following relevant discussions at the Copenhagen Inter-Sessional Meeting in 2018 on potential elements for inclusion in a new regulatory measure, and with consideration to the operative paragraphs contained in the Multi-Annual Regulatory Measure for Fishing for Salmon at West Greenland for 2015, 2016 and 2017, WGC(15)21, the Chair advised the Commission that he had developed and tabled a document (WGCIS(18)11) that contained revised elements for potential inclusion in a new regulatory measure, to be considered prior to the Annual Meeting. Additionally, at the Inter-Sessional Conference Call, the United States indicated that they may table a document containing provisions that they consider should be included in a new regulatory measure. This document (WGCIS(18)19 – Annex 3) was received a day prior to the Portland Inter-Sessional Meeting.

- 7.1.2 The representative of DFG thanked the United States for presenting this paper, noting it was a constructive proposal with many existing and new positive elements which can be elaborated on. However, he expressed reservations on certain items and informed the Commission that further internal consultation within the authorities in Greenland will be required in advance of the Annual Meeting of the Commission. The representatives of the EU and Canada also acknowledged and thanked the United States for producing this document.

- 7.1.3 Extensive discussions commenced between the Members of the Commission on the content of document WGCIS(18)19. Items provisionally accepted by the Members were retained and included in a revised ‘Draft Proposed Regulatory Measure for Fishing for Atlantic Salmon at West Greenland, WGCIS(18)21 (Annex 4), with items remaining for further consideration in the Annual Meeting of the Commission identified within square brackets. Issues requiring further discussion include, *inter alia*:

- the appropriate use of the terminology ‘shall’ or ‘will’ where it occurs in the document;
- the opening and closing dates of fishing season (item 2);
- the total allowable catch level to be authorised (item 3);
- the Preamble; and
- item 8 of document WGCIS(18)19: on the time frame of the measure and on a process for review and reconsideration.

- 7.1.4 The representative of DFG noted that in certain fisheries regulated with multi-annual measures in other Regional Fisheries Management Organizations, a percentage of the catch under quota in a particular year can be carried through and added to the total allowable catch for the following year. The representatives of Canada and the United States noted that this approach would be problematic for stocks in critical zones and not appropriate for salmon fisheries which exploit specific components of the overall stock. This was accepted by the representative of DFG.
- 7.1.5 Clarification was sought on the appropriate definition in item 6 of the *timely manner* requirement to *inform NASCO and, as appropriate, ICES, of any modifications to the management of the West Greenland salmon fishery and provide a report on the outcome of the fishery*. The representative of the United States clarified that this measure would necessitate an inter-sessional meeting to review the information; however, that meeting could be the day before the NASCO Annual Meeting, or earlier, and that reference to ‘in a timely manner’ was not intended as a judgment on past reporting.
- 7.1.6 The representative of the NGOs noted that at the Copenhagen Inter-Sessional Meeting it was proposed that Greenland should distribute its weekly catch report to the Members of the Commission and the NGO representatives so that they are aware of the progress of the fisheries each year. The representative of DFG will enquire with their control unit if it is possible to do this when the fishery season starts. In addition, the representative of DFG noted that if this reporting scheme is adopted, it could be sent directly to the Secretariat for subsequent circulation to the Commission Members and accredited NGOs. The representative of the EU further suggested that weekly catches could indeed be reported but that, in the absence of a deadline, nothing prevented reporting weekly catches on a monthly or annual basis, and that for this reason it was necessary to request the submission of updated total catches on a weekly basis.
- 7.2 Key Elements of Monitoring and Control Provisions that Parties Consider Important to be Implemented for the West Greenland Fishery**
- a) Discussion on the Rationale for Considering these Monitoring and Control Provisions*
- 7.2.1 The Chair outlined the discussions undertaken by the Members of the Commission at the previous Inter-Sessional Meetings in 2018.
- b) Considerations on the Implementation of these Suggested Monitoring and Control Provisions*
- 7.2.2 Extensive discussions continued between the Commission Members on the content of items in paper WGCIS(18)19 under the section ‘Attachment to WGCIS(18)11’. As with the paragraphs discussed under item 7.1, some items were provisionally accepted by the Members of the Commission and retained and included in document WGCIS(18)21 and other items requiring further consideration during the Annual Meeting of the Commission are identified within square brackets, notably consideration of items 5, 6 and 7.
- 7.2.3 The representative of DFG thanked the representative of the United States for proposing items 6 and 7. However, he indicated that further consultation was required on aspects of these proposals with the relevant authorities in Greenland. The representatives of the EU and Canada acknowledged the constructive approach by DFG who indicated that it could accept, pending further internal consultation, the licensing of all fishermen and the non-renewal of licenses in the absence of the provision of catch reports. Further consideration was given by the Commission Members to the suggestion of a template

to better satisfy the reporting of catches in a more systematic and standardised manner. The representative of the United States noted that ICES will have incomplete data on the harvest if reporting of catches by some fishers is late. The representative of DFG informed the Commission that there is a register of all licensed fishermen, and under the approach proposed, they would have to report catches within one month of the close of the fishing season. Therefore, in order to verify catches and contact fishermen who have not reported catches within the specified reporting period, a written notification would take the place of the phone survey to seek such information. The representative of Canada suggested that rather than being too prescriptive in the manner used to follow up with fishermen that did not report, scope should be given to the Greenlandic authorities as to the particular mechanism used in this regard.

- 7.2.4 In addition to the discussion document WGCIS(18)19, draft text for the preamble section to the proposed regulatory measure was circulated by the United States for information. The representative of Canada noted that reference to the cultural importance of Atlantic salmon to the Greenlandic people should be included in the preamble. Additionally, the representative of DFG informed the Commission that he had difficulty accepting the proposed preamble text in paragraph 4 (referencing adjustments to the reported landings) as the exact mechanisms used to determine adjustments to landings in such situations were unclear. In addition, he requested another formulation of the proposed preamble text in paragraph 6. The Commission agreed to include the preamble text in square brackets in document WGCIS(18)21 and noted that the entire document remains under negotiation. Further revisions were made to this document and the revised version, WGC(18)06rev, will be tabled for consideration at the Annual Meeting of the Commission.
- 7.2.5 The Chair received confirmation from the Members of the Commission that the results of the discussion in agenda items 7.1 and 7.2 will form the contents of a draft new regulatory measure for consideration and will be appended to the inter-sessional meeting report as one document.

8. Other Business

- 8.1 There was no other business.

9. Report of the Meeting

- 9.1 The Commission agreed a report of the Inter-Sessional Meeting.

10. Close of the Meeting

- 10.1 The Chair thanked the participants for their contributions to the Inter-Sessional Meeting and closed the meeting.

List of Participants

Canada

Serge Doucet
Tony Blanchard
Frédéric Butruille
Gérald Chaput
Kate Johnson
Carl McLean (Chair)

Denmark (in respect of the Faroe Islands and Greenland)

Emanuel Rosing
Tønnes Berthelsen
John Biilmann
Bрита í Dali

European Union

Arnaud Peyronnet
Bernard Blazkiewicz
Delyth Dyne
Dennis Ensing
Cathal Gallagher
John McCartney
Denis Maher
Michael Millane
Lawrence Talks

United States

Kim Damon-Randall
Kim Blankenbeker
Steve Gephard
Alexis Ortiz
Rory Saunders
Tim Sheehan
Julie Williams
Rebecca Wintering

ICES

Martha Robertson

NGOs

Dave Meerburg
Andy Walker

Secretariat

Emma Hatfield
Sarah Robinson

WGCIS(18)20

***Inter-Sessional Meeting
of the West Greenland Commission***

Holiday Inn by the Bay, Portland, Maine, USA

10 June 2018

Agenda

1. Opening of the Meeting
2. Adoption of the Agenda
3. Nomination of a Rapporteur
4. Election of Vice-Chair
5. ACOM Report from ICES on Salmon Stocks in the Commission Area
6. Overview and Discussion of the 2018 West Greenland Commission Inter-Sessional Activities
7. Consideration of Elements of a Possible Future Regulatory Measure for the West Greenland Fishery:
 - 7.1 Identification and Review of the Options that may be Considered in a Possible Future Regulatory Measure
 - 7.2 Key Elements of Monitoring and Control Provisions that Parties Consider Important to be Implemented for the West Greenland Fishery
 - a) Discussion on the Rationale for Considering these Monitoring and Control Provisions
 - b) Considerations on the Implementation of these Suggested Monitoring and Control Provisions
8. Other Business
9. Report of the Meeting
10. Close of the Meeting

WGCIS(18)19
***U.S. Views and Suggestions on a Possible Regulatory Measure
for the West Greenland Atlantic Salmon Fishery***

Introduction

In 2015, the West Greenland Commission (WGC) adopted a Multi-Annual Regulatory Measure for Fishing for Salmon at West Greenland for 2015, 2016 and 2017 (WGC(15)21). In 2018, the WGC will consider development of a new regulatory measure for possible adoption. The United States is committed to engaging constructively with our WGC partners in this effort.

We have carefully considered the information and discussions from the two WGC intersessional meetings held so far in 2018. We continue to agree that there is no need to develop a new regulatory measure completely from scratch. Many of the existing paragraphs of the regulatory measure agreed in 2015 are still relevant. It is the U.S. opinion, however, that improvements and additional elements are needed in what the Chair's Working Document and its associated attachment to ensure any new regulatory measure is as clear as possible and that it strengthens the management of the West Greenland salmon fishery to balance, to the extent possible, stock conservation needs with an internal use fishery.

In an effort to help advance development and possible adoption of a new regulatory measure, the United States offers below its views and suggestions on various elements of a possible regulatory measure for consideration by WGC members. As noted, our starting point is the Chair's Working Document. It includes a number of elements, some of them longstanding, that we believe should be included in a new regulatory measure. Under some of the elements, we have provided commentary reflecting our views, including identifying additional elements and those elements that could potentially be dropped from a new regulatory measure. In some cases, we have also suggested phrasing to improve the clarity of an element, and / or to expand elements, including adding specificity. In addition, we request that, as a general matter, where the word 'will' appears, it be changed to 'shall' to conform with standard international usage.

We look forward to continuing discussion of a possible new regulatory measure for the West Greenland fishery during the third WGC intersessional meeting on June 10, 2018. In that regard, we hope this document facilitates discussions.

U.S. Views and Suggestions

Preamble

In Copenhagen, it was decided that the preambles of documents WGC(15)20 and WGC(15)21 should be reviewed at the Annual Meeting as necessary. A revised preamble will be needed as part of any new regulatory measure. Before turning to revising the preamble, additional progress is needed on the operative elements of a new measure.

Operative paragraphs of WGCIS(18)11

- (1) There shall be no export of wild Atlantic salmon or its products from Greenland;

- (2) The fishery shall open no earlier than DD MM and close no later than DD MM each year;
- (3) The catch limit for the West Greenland fishery shall be XX tonnes. Any overharvest in a particular year will result in an equal reduction in the catch limit in the following year; there will be no carry forward into a future year of any under-harvest;

Suggested modification to the first sentence of this element:

- *‘The total allowable catch for all components of the Atlantic salmon fishery at West Greenland shall be restricted to ## metric tonnes.’*
- (4) Efforts will be made to identify and implement temporal or spatial harvest restrictions that would provide increased protection for weaker stocks taking into account information provided by ICES;
 - To date, no such restrictions have been identified and until new information is presented, there appear to be no options available. Thus, this element could be dropped from a new regulatory measure.
 - Whether or not this element is included in a regulatory measure, it might be helpful to consider including a standing question in the Request for Scientific Advice from ICES to ‘advise on changes to temporal and / or spatial fishery patterns that may provide increased protection for weaker stocks’ as last requested in 2015 (CNL(15)11).
 - (5) Denmark (in respect of the Faroe Islands and Greenland) will further improve the monitoring, management control and surveillance of its salmon fishery during the period covered by this measure, at a minimum, in accordance with the attachment, with the objective of achieving full catch accountability and, if possible, will report annually on these actions;
 - Such general language could be included in a new regulatory measure; however, specific monitoring and control elements also need to be included.
 - (6) Denmark (in respect of the Faroe Islands and Greenland) will inform NASCO and, as appropriate, ICES in a timely manner of any modifications to the management of the West Greenland salmon fishery, of the outcome of the fishery and of progress with the implementation and effectiveness of agreed monitoring and control measures in the attachment for annual review by the Commission;
 - In line with current practice, requirements to report on modifications to the management of the fishery, the implementation of the regulatory measure and the fishery outcome each year should be included in a new regulatory measure.

Suggested modification to the text:

- *‘Denmark (in respect of the Faroe Islands and Greenland) shall, in a timely manner, inform NASCO and, as appropriate, ICES, of any modifications to the management of the West Greenland salmon fishery and provide a report on the outcome of the fishery.’*
- *‘The WGC shall review implementation of all aspects of this regulatory measure in advance of the NASCO Annual Meeting for each year that it is in force.’*

- (7) States of origin will explore opportunities to share experiences with Greenland on monitoring, management, control and surveillance in the salmon fishery through knowledge-sharing exchange programmes;
- (8) This regulatory measure will apply to the fishery at West Greenland in XX. This measure may also apply in XX unless any Member of the Commission requests review.
 - A new regulatory measure needs to cover, at a minimum, the West Greenland fishery for 2018. The United States is open to considering a multi-annual regulatory measure and to finding a way forward in this respect. If a multi-annual measure can be agreed, it should include a reconsideration clause along the lines of that in the 2015 regulatory measure and that also could include a reference to the Framework of Indicators since this can also be the basis for reconsideration.

Attachment to WGCIS(18)11

- (1) Greenland shall annually collect and verify catch data of fishing activity of all licensed fishermen;
 - Collecting and verifying the fishing activity of all fishermen is important. Specific actions in this regard should be included in the regulatory measure, and some ideas in this regard are offered below in the discussion under other paragraphs.
- (2) All professional fishermen fishing for salmon shall require a license; only licensed professional fishermen shall be authorised to supply salmon to the communities;
 - Licensing requirements are an effective fishery management tool and should not be limited to only professional fishermen. Further, fishing without a license should not be allowed.

Suggested modification to the text:

- *“All fishers for Atlantic salmon shall be required to have a license to fish and fishing for Atlantic salmon without a license shall be prohibited.”*
- (3) In the case of non-professional fishermen, approaches shall be identified and implemented to provide a means for accurately quantifying harvests;
 - Our suggestions under paragraph 2 above and paragraph 6 below would help address this element not only for non-professional fishermen but for all fishermen, which is essential. In addition, we continue to agree with the ICES advice that a standardized telephone survey should be implemented to help address any reporting gaps. Given its expertise and previous advice on the matter, ICES should be asked to help with the survey design. Further, this tool could potentially be implemented in a manner that would help with the outreach aspects of paragraph 7 below.

Suggested modification to the text:

- *“A telephone survey shall be implemented after the fishing season to interview all licensed fishers who did not report catches to gather relevant fishing information, including harvest, using a standardized questionnaire in light of the advice from ICES and agreed by the WGC. Results of the phone survey shall be provided to ICES for their consideration prior to their annual Atlantic salmon assessment meeting.”*
- (4) Landing of salmon at fish factories shall be prohibited;

Suggested modification to the text:

- *“Landings of wild Atlantic salmon to fish processing factories shall be prohibited.”*
- (5) Catches will be monitored regularly to allow in-season monitoring of the catch limit;
- (6) All salmon fishermen / all licensed salmon fishermen will be required to provide a seasonal catch report, including zero catch reports, within one month of the end of the salmon fishing season;
- Paragraphs 5 and 6 are important elements that should be retained in a new regulatory measure.
 - Development of a standardized reporting template to attach to a regulatory measure as a technical matter that should involve ICES scientists.

Suggested modification to the text in paragraphs 5 and 6:

- *All licensed fishers for Atlantic salmon shall provide a full accounting of all fishing activity and harvest, including zero harvest, according to the standardized template annexed to this measure. Reporting shall be required on a weekly and / or daily basis as appropriate to allow for in-season monitoring of the catch limit.’*
- (7) Failure by a fisherman to report catches, including zero catches, as specified in (6) shall result in follow-up action by the Government of Greenland to encourage reporting, and, if appropriate, other actions, such as the impositions of penalties;
- Non-punitive actions to encourage fishermen to meet their reporting obligations are important for effective management. Access to the resource, however, must be linked to meeting that fundamental obligation. In that regard, the suggested text below could replace or augment the language in the Chair’s Working Document.

Suggested modification to the text:

- *‘All Atlantic salmon fishers that have not provided a full accounting of their catches, including reports for zero catches, within one month of the end of the fishing season shall be prohibited from fishing for salmon during the subsequent fishing season until such catch data are received.’*
- (8) It shall be a condition of the licence that fishermen shall allow samplers from the NASCO sampling programme to take samples of their catches upon request; and
- The West Greenland sampling program has provided important information to NASCO. We would like to discuss this and other ways to continue to ensure access to samples.
- (9) Information will be provided to fishermen and supervisors at open air markets explaining the rationale for the sampling programme. The findings of the sampling programme will be disseminated through appropriate means, with the assistance of the Government of Greenland, as requested.
- Sharing information on the benefits of the sampling program within Greenland is valuable and should be continued.

WGCIS(18)21

***Draft Proposed Regulatory Measure
for Fishing for Atlantic Salmon at West Greenland***

[RECALLING that the West Greenland Commission (WGC) adopted regulatory measures that provided for a fishery at West Greenland that was ‘restricted to that amount used for internal consumption in Greenland, which in the past has been estimated at 20 t annually’ and that the regulatory measures adopted in 2006, 2009 and 2012 applied for three-year periods, subject to the application of the Framework of Indicators (FWI);

RECALLING as well that at its 2015 Annual Meeting, the WGC adopted a multi-annual regulatory measure intended, *inter alia*, to improve monitoring and control of the West Greenland fishery, but the WGC was unable to agree on a total catch limit as part of that measure;

NOTING that Denmark (in respect of the Faroe Islands and Greenland) unilaterally committed to limit the total annual catch for all components of its fishery to 45 t in 2015, 2016 and 2017 and that over that time period, reported landings were approximately 57 t, 27 t, and 28 t respectively;

FURTHER NOTING that from 2002 – 2017, adjustments to the reported landings have been necessary in all but two years due to under-reporting identified through the multilateral West Greenland sampling program or the phone surveys conducted by Greenland;

CONSIDERING that ICES has assessed the status of the stocks of the seven regions contributing to the fishery at West Greenland and has advised that in line with the management objectives agreed by NASCO, there are no mixed-stock fishery options at West Greenland for the fishing years 2018 to 2020;

STRESSING that some stocks harvested at West Greenland are at risk of extinction and under special protection in some States of origin that includes prohibitions on harvest and sale;

RECOGNISING that Denmark (in respect of the Faroe Islands and Greenland) has made some progress over the 2015 – 17 period to improve catch accountability from licensed fishers, but that additional improvements are needed to ensure catches from all components of the fishery are accounted for properly;

COMMITTING to continue to co-operate in the design and implementation of a sampling programme for the salmon fishery at West Greenland to obtain critical data needed for ICES stock assessments;

[NOTING that an updated Framework of Indicators has been provided by ICES and can be applied between assessments to evaluate if a significant change is signalled by the indicators and, therefore, a reassessment of the ICES advice is warranted;]]

Thus, the Members of the Commission agree as follows:

- (1) There [shall] be no export of wild Atlantic salmon or its products from Greenland. Landings and sales of Atlantic salmon to fish processing factories [shall] be prohibited;
- (2) The fishery [shall] open no earlier than [15 August] and close no later than [31 October] each year;
- (3) The total allowable catch for all components of the Atlantic salmon fishery at West Greenland [shall] be restricted to ## metric tonnes. Any overharvest in a particular year [will] result in an equal reduction in the total allowable catch in the following year; there [will] be no carry forward into a future year of any under-harvest;
- (4) Denmark (in respect of the Faroe Islands and Greenland) [will] further improve the monitoring, management control and surveillance of its salmon fishery during the period covered by this measure, at a minimum, with the objective of achieving full catch accountability and, if possible, [will] report annually on these actions;
- (5) Denmark (in respect of the Faroe Islands and Greenland) [shall], in a timely manner, inform NASCO and, as appropriate, ICES, of any modifications to the management of the West Greenland salmon fishery and provide a report on the outcome of the fishery. The West Greenland Commission [shall] review implementation of all aspects of this regulatory measure in advance of the NASCO Annual Meeting for each year that it is in force;
- (6) States of origin [will] explore opportunities to share experiences with Greenland on monitoring, management, control and surveillance in the salmon fishery through knowledge-sharing exchange programmes; and
- (7) [This regulatory measure [will] apply to the fishery at West Greenland in XX. This measure may also apply in XX unless any Member of the Commission requests review.]

Additionally, the Members of the Commission agree the following paragraphs for the implementation of monitoring and control measures in the Atlantic salmon fishery at West Greenland:

- (8) Greenland [shall] annually collect and verify catch data of fishing activity of all licensed fishermen;
- (9) [All fishers for Atlantic salmon [shall] be required to have a licence to fish and fishing for Atlantic salmon without a licence [shall] be prohibited. Only licensed full-time professional hunters and fishers [shall] be authorised to sell Atlantic salmon at open air markets in communities];
- (10) [All licensed fishers for Atlantic salmon [shall] provide a full accounting of all fishing activity and harvest, including zero harvest, according to an agreed standardised reporting template. Reporting [shall] be required on a daily basis to allow for in-season monitoring of the total allowable catch. Greenland [will] provide updated catch reports to the Secretariat on a weekly basis. The Secretariat [will] then provide these to the Parties and NGO representative of the Commission];
- (11) [All licensed fishers for Atlantic salmon that have not provided a full accounting of their catches, including reports for zero catches, within one month of the end of the fishing season at the latest [shall] be prohibited from acquiring a licence for the following season until required reporting is received. One month after the fishing season the Government of Greenland [shall] follow up with fishers who have not provided full accounting of their catches, including zero catches;]

- (12) It [shall] be a condition of the licence that fishermen [shall] allow samplers from the NASCO sampling programme to take samples of their catches upon request; and
- (13) Information [will] be provided to fishermen and supervisors at open air markets explaining the rationale for the sampling programme. The findings of the sampling programme [will] be disseminated through appropriate means, with the assistance of the Government of Greenland, as requested.



West Greenland Commission

WGC(18)07

Summary of the reports on the Greenland Salmon Fishery in 2015, 2016 and 2017 (Tabled by Greenland)

Under the Multi-Annual Regulatory Measure for Fishing for Salmon at the West Greenland for 2015, 2016 and 2017, WGC(21), Denmark (in respect of the Faroe Islands and Greenland) agreed to inform NASCO and, as appropriate, ICES in a timely manner of any modifications to the management of the West Greenland salmon fishery, of the outcome of the 2015, 2016 and 2017 fisheries and of progress with the implementation and effectiveness of its Updated Plan for Impementation of Monitoring and Control Measures in the Salmon Fishery at West Greenland, WGC(15)20, for annual review by the Commission.

The full reports from 2015, 2016 and 2017 are also attached.



Summary of the reports on the Greenland Salmon Fishery in 2015, 2016 and 2017

13-06-2018
Sags nr.: 2018 - 8336
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From the document WGC 15(21) Multi-Annual Regulatory Measure for Fishing for Salmon at West Greenland for 2015, 2016 and 2017

Postboks 269 3900
Nuuk
Tlf. (+299) 34 50 00
Fax (+299) 34 63 55
E-mail: apn@nanoq.gl
www.naalakkersuisut.gl

- ***Denmark (in respect of the Faroe Islands and Greenland) unilaterally committed to limit the total annual catch for all components of its fishery to take no more than 45t in 2015, 2016, and 2017;***
 - ✓ In 2015 a quota of 45 tonnes for the entire fishery, all segments included
 - ✓ In 2016 the quota was set at 32 tonnes for the entire fishery in 2016, all segment included
 - ✓ In 2017 a quota of 45 tonnes for the entire fishery, all segments included

- (1) There will be no export of wild Atlantic salmon or its products from Greenland;***
 - ✓ There has been no export of wild Atlantic salmon or its products from Greenland in 2015, 2016 and 2017

- (2) The fishery will open no earlier than 1 August and close no later than 31 October each year;***
 - ✓ In 2015: august 15 – October 23
 - ✓ In 2016: august 15 – October 31
 - ✓ In 2017: august 15 – November 1 (prolonged one day due to bad weather)

- (3) For the unilateral catch limit to be established by Denmark (in respect of the Faroe Islands and Greenland), any overharvest in a particular year will result in an equal reduction in the catch limit in the following year; there will be no carry forward into a future year of any under-harvest;***
 - ✓ The overharvest in 2015 of 13,4 tonnes resulted in an reduction of 13,4 tonnes in the TAC in 2016.
 - ✓ There were no carry forward of under-harvest from 2016 to 2017
 - ✓ There were no carry forward of under-harvest from 2017 to 2018

(4) Efforts will be made to identify and implement temporal or spatial harvest restrictions that would provide increased protection for weaker stocks taking into account information provided by ICES;

➤ ICES did not provide temporal or spatial harvest restrictions in all years.

(5) Denmark (in respect of the Faroe Islands and Greenland) will further improve the monitoring, management control and surveillance of its salmon fishery during the period covered by this measure, at a minimum, in accordance with the Plan for Implementation of Monitoring and Control Measures in the Salmon Fishery at West Greenland, WGC(15)20 with the objective of achieving full catch accountability;

Greenland has improved the monitoring management control and surveillance of its salmon all years, for more details see attached reports from 2015, 2016 and 2017

(6) All Members of the Commission will implement the six tenets in accordance with WGC(15)23;

➤ Nothing to report

(7) Denmark (in respect of the Faroe Islands and Greenland) will inform NASCO and, as appropriate, ICES in a timely manner of any modifications to the management of the West Greenland salmon fishery, of the outcome of the 2015, 2016 and 2017 fisheries and of progress with the implementation and effectiveness of its Plan for Implementation of Monitoring and Control Measures in the Salmon Fishery at West Greenland, WGC(15)20 , for annual review by the Commission;

- ✓ Greenland informed NASCO in a timely manner of the outcome of the 2015 fisheries on March 18th 2016
- ✓ Greenland informed NASCO in a timely manner of the outcome of the 2016 fisheries on April 5th 2017
- ✓ Greenland informed NASCO in a timely manner of the outcome of the 2017 fisheries on February 16th 2018

(8) States of origin will explore opportunities to share experiences with Greenland on monitoring, management control and surveillance in the salmon fishery, including on carcass tagging, through knowledge-sharing exchange programmes;

➤ Nothing to report

(9) This regulatory measure will apply to the fishery at West Greenland in 2015. This measure will also apply in 2016 and 2017 unless any Member of the Commission requests review.

- This regulatory measure was applied in 2015, 2016 and 2017

From the document WGC 15(20) Updated Plan for Implementation of Monitoring and Control measures in the Salmon Fishery at West Greenland

The Ministry of Fisheries, Hunting and Agriculture will take forward proposals to implement measures, where possible in advance of the 2015 salmon fishery at West Greenland, such that:

(1) All individuals fishing for salmon will require a license; only licensed professional fishermen will be authorised to supply salmon to the communities;

- Licencing of private/non-professional fishers was not implemented in 2015, 2016 and 2017

It should be said, however that during this period there was developed a digital license issuing system, that makes it possible to immediately issue a license locally to those who fulfill the requirement. This means that it is now possible to apply this measure in a new agreement.

- Only licenced professional fishermen have been authorized to supply salmon to the communities in 2015, 2016 and 2017

(2) Fish factories will be permitted to accept landings of salmon where they have authorisation to do so, and fishermen will be advised that landing of salmon at non authorised factories is not permitted;

- Factory landings were allowed in 2015
- ✓ Factory landings were not allowed in 2016
- ✓ Factory landing were not allowed in 2017

(3) Fish factories will report landings by weight and also where possible by number no less frequently than on a weekly basis;

In 2015 fish factories reported to GFLK after landing

- ✓ In 2016 factory landings not allowed
- ✓ In 2017 factory landings not allowed

Catches will be monitored regularly to allow in-season monitoring of the catch limit;

- ✓ In 2015, 2016 and 2017 daily reporting or reporting every time the nets were mended

(5) All licensed salmon fishermen will be required to provide a seasonal catch report, including zero catch reports, within one month of the end of the salmon fishing season;

- In 2015 not implemented
- In 2016, not implemented, but most reports were received
- In 2017, not implemented, but most reports were received

(6) Failure to report catches as specified in (5) will result in no license being issued for the following year(s) even in the case of zero catch;

- Not been implemented in all years

(7) It will be a condition of the license that fishermen shall allow samplers from the NASCO sampling programme to take samples of their catches upon request; and

- ✓ Implemented in all years

(8) Information will be provided to fishermen and supervisors at open air markets explaining the rationale for the sampling programme and the findings of the programme to date through the members' magazine of the Fishermen and Hunters Organization (KNAPK) and press releases.

- ✓ implemented in all years

Progress in implementing these measures and evaluating their effectiveness will be reported at the meetings of the West Greenland Commission.

In addition, the Ministry of Fisheries, Hunting and Agriculture will undertake the following:

(1) Consider delaying the opening date of the fishing season and other measures such as the setting of factory-specific quotas, eliminating fishing for Atlantic salmon by nonprofessional fishermen, increased enforcement activity and reporting, etc.;

- This measure has not been implemented in 2015, 2016, 2017

(2) Evaluate and report on the costs and benefits of conducting a pilot carcass tagging project in one or more communities in conjunction with other Members of the Commission who may be able to provide information on the application of carcass tagging; and

- It will require administrative and other challenges in connection with this form of scheme, as we are a small management in Greenland. We believe that it will be an

additional burden on our administrative system and will not match what we eventually get for Greenland's salmon deal with NASCO. Especially when thinking about that there are approx. 77 settlements and cities in Greenland. It will require a lot of logistical problems, here are the huge kilometers of coastline. So it would be very difficult in this context.

(3) Review the Plan on an annual basis, make recommendations for its further improvement and report the outcomes at the meetings of the West Greenland Commission

- Changes to the Executive order from 2015 has not been revised on a annually basis

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Best regards

Emanuel Rosing (Ministry of Fisheries, Hunting and Agriculture)



Members of West Greenland Commission
NASCO

Status on the Salmon fishery in Greenland 2017

According to the Multi-Annual Regulatory Measure for fishing for salmon at West Greenland in 2015, 2016 and 2017 (WGC(15)21) Greenland should report on its fisheries and changes to its management regime to the West Greenland Commission. Hence the Ministry of Fisheries and Hunting is forwarding this status report concerning the fishery in 2017 and the initiatives implemented from the Plan for implementation of monitoring and control measures in the salmon fishery in Greenland (WGCIS(15)5).

The management measures implemented before the 2015 fishery continued in the fishery in 2016 and in 2017.

The quota was set at 45 tonnes for the entire fishery in 2017, all segments included, in accordance with the Multi-Annual Regulatory Measure for Fishing for Salmon at West Greenland.

The Executive Order to include a shorter fishing season still stands. Thus, as in 2015 and 2016, the fishing season ran from 15 August – 31 October with the exemption that the quota would be exhausted earlier. This was not the case and the salmon fishery in Greenland (both East and West) closed on 31 October. The quota uptake, based on received reports, ended at 26,8 tonnes. By far most of it was taken in West Greenland.

As during the previous regulatory measures the export ban on salmon continued. The executive order on catch reporting, which was in force before the start of the last season, and which required salmon catches to be reported by count (number of fish) as well as weight was still in place. No factory landings were allowed in the fishery in 2017.

Reporting from fishers

It is compulsory for all salmon fishers to report daily or every time the nets are mended. This can be done directly to The Greenland Fisheries License Control Authority (GFLK) or indirectly through municipalities. GFLK continued its increased focus on the control of the salmon fishery in 2017, as they did in 2016 and 2015. The wild life officers and landing officers all brought reporting templates with them to hand out to fishers during their patrols and landing controls – thus, reminding people to report daily or every time they had mended their nets. It cannot be understated that the workload put on GFLK in connection with the regulatory measures for the salmon fishery is considered immense.

As in 2015 and 2016 the Ministry and GFLK ran an extensive information campaign, with infomercials in the newspapers, on TV and in the radio up to three times a week during the season reminding people to report and that everyone needs to report – including private fishers. Furthermore, the Ministry published a report every week stating how much of the quota had been fished and how much was left.

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Akt nr. 7253532

Postboks 269 3900
Nuuk
Tlf. (+299) 34 50 00
Fax (+299) 34 63 55
E-mail: apnn@nanoq.gl
www.naalakkersuisut.gl

This effort has sustained the relatively high number of reports received. GFLK received approximately 630 catch reports of which around 160 are from private, unlicensed fishers.

Status on the implementation of the Multi-Annual Regulatory Measures and the Plan for implementation of monitoring and control measures in the salmon fishery in Greenland.

The measures agreed to during the meetings in the West Greenland Commission in 2015 are very extensive and require great efforts from the Government and the people of Greenland to implement. Thus, the Government of Greenland had put a lot of efforts in implementing as many of the measures and initiatives as possible before the fishery season in 2015, 2016 and as well in 2017.

While not all the remaining initiatives and measures were implemented in 2016, the effort to ensure proper reporting was sustained and work on the remaining issues is ongoing, and the Government of Greenland is committed to continue this work.

Below is given a short status/overview of the implementation process.

The Multi-Annual Regulatory Measures entails that Greenland should implement the following measures:

- One quota for all segments of the fishery, which includes professional and private fishermen.
 - One quota for all fishers was introduced in 2015 – a quota of 45 tonnes was set. Again in 2017 one quota covering all segments was set.
- All salmon fishers will require a license and will be categorized as either licensed professional fisher or licensed non-professional/private fisher; only licensed professional fishers will be authorized to sell salmon.
 - Licensing of private/non-professional fishers is not implemented. Since the adoption of the multi-annual regulatory measures it has been found to be too comprehensive to implement this restriction at this stage, also taking into account the limited resources of the ministry and GFLK.
- Only designated fish factories will be authorized to accept landings of salmon, and fishers should be advised that landing of salmon at non-authorized factories is not permitted. Fish factories will report landings no less frequently than on a weekly basis;
 - Factory landings were not allowed in 2017.
- Supervisors at the large open air markets will report all salmon offered for sale on a weekly basis;
 - The effort to ensure proper reporting from open air markets continued, and a dialogue with responsible municipalities was maintained in 2017.

- Reports of all catches, including zero catch reports, will be required within 1 month of the end of the salmon fishing season at which time fishermen may apply for a license for the following season;
 - ✓ Most reports were received within the season.

- Failure to report catches will result in no license being issued for the following year(s), even in the case of zero catch;
 - This measure has not been implemented. Since the adoption of the multi-annual regulatory measures it has been reconsidered to be too controversial and too premature at this stage to deny a fisher a license.

- It will be a condition of the license that fishers should allow samplers to take samples of their catches upon request;
 - The license requirement was implemented before the 2015 season and remained in force in 2016 and 2017.

- Information will be provided to fishers and supervisors at open air markets about the sampling programme and the findings of the programme to date through the members' magazine of the Fishers and Hunters Organization (KNAPK) and press releases.
 - The NASCO brochure was issued with each license and forwarded to open air markets.

The Government of Greenland is pleased to present this report to our colleagues in the West Greenland Commission.

Please do not hesitate to contact me for additional information.

Best regards,

A handwritten signature in blue ink that reads "Emanuel Rosing". The signature is written in a cursive style with a large, looping 'R'.

Emanuel Rosing



Members of West Greenland Commission
NASCO

Status on the Salmon fishery in Greenland 2016

According to the Multi-Annual Regulatory Measure for fishing for salmon at West Greenland in 2015, 2016 and 2017 (WGC(15)21) Greenland should report on its fisheries and changes to its management regime to the West Greenland Commission. Hence the Ministry of Fisheries and Hunting is forwarding this status report concerning the fishery in 2016 and the initiatives implemented from the Plan for implementation of monitoring and control measures in the salmon fishery in Greenland (WGCIS(15)5).

The management measures implemented before the 2015 fishery continued in the 2016 fishery.

Following overfishing in 2015, the quota was set at 32 tonnes for the entire fishery in 2016, all segments included.

The Executive Order to include a shorter fishing season still stands. Thus, as in 2015, the fishing season ran from 15 August – 31 October with the exemption that the quota would be exhausted earlier. This wasn't the case and the salmon fishery in Greenland (both East and West) was closed on 31 October. The quota uptake, based on received reports, ended at 27088 kg, of which roughly 95% was taken in West Greenland.

As during the previous regulatory measures the export ban on salmon continued. A new executive order on catch reporting was in force before the start of the season, which required salmon catches to be reported by count (number of fish) as well as weight. No factory landings were allowed in the fishery in 2016.

Reporting from fishermen

It is compulsory for all salmon fishers to report daily or every time the nets are mended, which they can do directly to The Greenland Fisheries License Control Authority (GFLK) or indirectly through municipalities. GFLK continued the increased focus on the control of the salmon fishery in 2016. The wild life officers and landing officers all brought reporting templates with them to hand out to fishermen during their patrols and landing controls – thus, reminding people to report daily or every time they had mended their nets.

As in 2015 the Ministry and GFLK ran an extensive information campaign, with infomercials in the newspapers, on TV and in the radio up to three times a week during the season reminding people to report and that everyone needs to report – including private fishermen. Furthermore, the Ministry published a report every week stating how much of the quota had been fished and how much was left.

This effort has sustained the relatively high number of reports received. GFLK received approximately 500 catch reports of which around 200 are from private, unlicensed

05-04-2017
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Postboks 269 3900
Nuuk
Tlf. (+299) 34 50 00
Fax (+299) 34 63 55
E-mail: apnn@nanoq.gl
www.naalakkersuisut.gl

fishermen. The problem of late reporting from one municipality in 2015 was not repeated in 2016.

Status on the implementation of the Multi-Annual Regulatory Measures and the Plan for implementation of monitoring and control measures in the salmon fishery in Greenland.

The measures agreed to during the meetings in the West Greenland Commission in 2015 are very extensive and require great efforts from the Government and the people of Greenland to implement. Thus, the Government of Greenland had put a lot of efforts in implementing as many of the measures and initiatives as possible before the fishery season in 2015 as well as in 2016.

While not all the remaining initiatives and measures were implemented in 2016, the effort to ensure proper reporting was sustained and work on the remaining issues is ongoing, and the Government of Greenland is committed to continue this work.

Below is given a short status/overview of the implementation process.

The Multi-Annual Regulatory Measures entails that Greenland should implement the following measures:

- One quota for all segments of the fishery, which includes professional and private fishermen.
 - One quota for all fishermen was introduced in 2015 – a quota of 45 tonnes was set. Again in 2016 one quota covering all segments was set.

- Unilateral catch limit, which ensures that any overharvest in one year is deduced in the following year.
 - ✓ A unilateral catch limit of 32 tonnes was decided in 2016 due to the overharvest in 2015 as a consequence of late incoming reports from one municipality.

- All salmon fishermen will require a license and will be categorized as either licensed professional fisherman or licensed non-professional/private fishermen; only licensed professional fishermen will be authorized to sell salmon.
 - Licensing of private/non-professional fishermen is not yet implemented. In 2016 a process of transferring the general task of issuing licenses to the inshore fishermen from the Government of Greenland to the municipalities commenced. This was due to a political demand and took a lot of effort which can be considered as one of the reasons why licenses for private salmon fishermen weren't implemented.

- Only designated fish factories will be authorized to accept landings of salmon, and fishermen should be advised that landing of salmon at non-authorized factories is not permitted. Fish factories will report landings no less frequently than on a weekly basis;
 - Factory landings were not allowed in 2016.

- Supervisors at the large open air markets will report all salmon offered for sale on a weekly basis;
 - The effort to ensure proper reporting from open air markets continued, and a dialogue with responsible municipalities was maintained in 2016.

- In the 2015 status report it was announced that the Ministry of Fisheries and Hunting will work on better opportunities to report and along with that increasing information about the new reporting regime to the municipalities
 - GFLK has had a close dialogue with municipalities; however the standards of reporting from 2015 were carried over in 2016 and are now under evaluation.

- Reports of all catches, including zero catch reports, will be required within 1 month of the end of the salmon fishing season at which time fishermen may apply for a license for the following season;
 - ✓ Most reports were received within the season.

- Failure to report catches will result in no license being issued for the following year(s), even in the case of zero catch;
 - This measure has not been implemented.

- It will be a condition of the license that fishermen should allow samplers to take samples of their catches upon request;
 - The license requirement was implemented before the 2015 season and remained in force in 2016.

- Information will be provided to fishermen and supervisors at open air markets about the sampling programme and the findings of the programme to date through the members' magazine of the Fishermen and Hunters Organization (KNAPK) and press releases.
 - The NASCO brochure was issued with each license and forwarded to open air markets.

The Government of Greenland is pleased to present this report to our colleagues in the West Greenland Commission.

The Ministry of Fisheries and Hunting and GFLK will continue the focus on salmon in 2017, and will work with municipalities to ensure that reporting is done in a timely manner.

Please do not hesitate to contact me or my staff for additional information.

Best regards,

A handwritten signature in blue ink, appearing to be 'Esben Ehlers', with a long horizontal flourish extending to the right.

Esben Ehlers
Acting Head of Delegation



**West Greenland
Commission Inter-Sessional
Meeting**

WGCIS(16)4

Report on the Greenland Salmon Fishery in 2015

Under the Multi-Annual Regulatory Measure for Fishing for Salmon at West Greenland for 2015, 2016 and 2017, WGC(15)21, Denmark (in respect of the Faroe Islands and Greenland) agreed to inform NASCO and, as appropriate, ICES in a timely manner of any modifications to the management of the West Greenland salmon fishery, of the outcome of the 2015, 2016 and 2017 fisheries and of progress with the implementation and effectiveness of its Updated Plan for Implementation of Monitoring and Control Measures in the Salmon Fishery at West Greenland, WGC(15)20, for annual review by the Commission.

Details of the proposed management measures for the 2015 fishery were issued to all delegates on 12 August and 14 October 2015. Attached is a report on the fishery and further information on progress in implementing the agreed monitoring and control measures in 2015 and details of plans for new measures in 2016.



18-03-2016
Sags nr. 16365
Dok. nr. 2209101

Postboks 269
3900 Nuuk
Tlf. (+299) 34 50 00
Fax (+299) 34 63 55
E-mail: apnn@nanoq.gl
www.naalakkersuisut.gl

Members of the West Greenland
Commission NASCO

Status on the Salmon fishery in Greenland 2015

According to the Multi-Annual Regulatory Measure for fishing for salmon at West Greenland for 2015, 2016 and 2017 (WGC(15)21) Greenland should report on its fisheries and changes to its management regime to the West Greenland Commission in a timely manner. The Ministry of Fisheries, Hunting and Agriculture is hereby forwarding this status of the fishery in 2015 and the status of the initiatives implemented from the Plan for implementation of monitoring and control measures in the salmon fishery in Greenland (WGCIS(15)5) as well as the initiatives to be implemented in the spring of 2016.

Management measures implemented before the 2015 fishery

As agreed at the Annual Meeting in Happy Valley, Greenland implemented as many of the measures agreed in the Plan for implementation of monitoring and control measures in the salmon fishery in Greenland as possible before the beginning of the fishery in 2015.

As during the previous regulatory measures the export ban on salmon continues.

The very first thing to be completed after the return from the Annual Meeting was an update of the Executive Order to include a shorter fishing season, a quota of 45 tonnes for the entire fishery, all segments included and to change the demand for reporting to in season, daily reporting or reporting every time the nets were mended. This entailed that the fishing season now runs from 15. August - 31. October or until the quota is exhausted.

Initially, the Government of Greenland decided to not to allow landings as they found it very important to ensure that private fishermen had a fair chance of fishing what they needed to sustain themselves. However, during the season they opened up for factory landings as they had a better view of the development of the fishery. This is the first time in Greenland that the private fishermen is restricted in their fishery and thus, the impact of this is something that have to be observed in order to ensure that people do not lose their ability to sustain themselves and their families.

The NASCO brochure on sampling which was approved by the West Greenland Commission at the Annual Meeting was issued together with the salmon licenses, forwarded to the open air markets and the samplers themselves had the brochures to hand out during the sampling. Furthermore, as agreed the Ministry of Fisheries, Hunting and Agriculture made an authority approval letter for the samplers to prevent any trouble. A new condition in the licenses stating that fishermen should allow samplers to take samples of their catch was also implemented.

The Greenland Fisheries License Control Authority (GFLK) increased their focus on the control of the salmon fishery and the wild life officers and landing officers all brought reporting templates with them to hand out to fishermen during their patrols and landing controls - thus, reminding people to report daily or every time they had mended their nets.

In addition, the Ministry and GFLK ran an extensive information campaign in the newspapers, on TV and in the radio up to three times a week during the season reminding people to report and that everyone needs to report- including private fishermen. Furthermore, the Ministry published Press Releases every week stating how much of the quota had been fished, how much was left and reminding people to report.

This effort has increased the number of reports, especially from private fishermen which is very positive. GFLK has received 1161 catch reports of which 211 are from private, unlicensed fishermen. In addition, factory landing stations reported 66 landings of catches on a salmon license. Due to the efforts to increase reporting some catches were reported two times and GFLK has estimated that 80 of the daily catch reports of licensed fishermen were double counts.

The salmon fishery in Greenland (including East Greenland) was closed on October 23 after the quota was exhausted. However, unfortunately approximately three weeks after the closure of the fishery a municipality sent further reports received from fishermen. This meant that the quota uptake ended on 56,3 tonnes. 55,4 tonnes in West Greenland and 0,9 tonnes in East Greenland. (In Greenland it is one quota for both West and East Greenland).

However, a phone survey targeting holders of salmon licenses who had not reported any catches was conducted in February-March 2016. Out of a total of 158 persons, 105 were possible to interview, and 22 reported that they had caught salmon in 2015. The survey is currently in the process of being analysed by the Greenland Institute of Natural Resources. The phone survey resulted in additional reports of 1606 kg salmon catches, and 150 salmons (reported in numbers not in weight), which GFLK at an average fish weight of 3kg estimates to 450kg.

The corrected total quota uptake in 2015 after the phone survey is thus a total of 58,4 tonnes; 57,5 tonnes in West Greenland and 0,9 tonnes in East Greenland.

The fishermen is not to blame for this late reporting as their reports was made timely and within the season, however as they did not have emails they handed in their reports to the municipality. The municipality did not send the reports to GFLK before the end of the season. This was an unforeseen problem, which GFLK had not taken account for due to the extensive information campaign, it had not been anticipated that a municipality would not have sent the reports immediately.

However, this is a new initiative and everybody from fishermen to municipalities must get use to the new measures. This is not something that occurs in other fisheries, which are commercial

and thus, the factories report for the fishermen. It is a learning process for all involved. However, in the coming years the Ministry and GFLK will be focusing on ensuring that the municipalities report in a timely manner when reporting for the fishermen.

The phone survey, has shown an improvement in reporting and this is expected to continue in the coming years as the new initiatives is implemented and as licensing for all segments will enter into force. The Ministry of Fisheries, Hunting and Agriculture will continue to evaluate on the effect of the new initiatives and adjust them accordingly. However, it is also important to give the system and the fishermen time to get use to all these new regulations and management measures.

Management Measures to be Implemented before the 2016 fishery

Thus, this first year of the new regulatory measure has given the GFLK and the Ministry of Fisheries, Hunting and Agriculture many valuable lessons. Which also affect the measures and initiatives to be implemented in the spring of 2016.

- Implementation of licenses for all fishermen, including private
- Implementation of a unilateral catch limits, which will entail that any overharvest in one year will be reduced in the quota for the coming year. (This will entails that the quota for 2016 will be 31, 6 tonnes.)
- Implementation of better possibilities to report
- Increased information about the new reporting regime to the municipalities.
- A new Executive Order on reporting is being prepared and in the new order there will be a requirement to report on salmon by-catch on a number of fish- basis.

Most of these measures will require an update of the Executive Order and thus, a hearing of the stakeholders. Therefore, the Ministry of Fisheries, Hunting and Agriculture will begin this process in the coming months. However, the implementation of licenses to private fishermen will in addition to a change of the Executive Order also require an addition to the licenses system as Greenland has not issued licenses to private fishermen before. GFLK has already begun the work to develop new templates and segments for private fishermen in the fisheries database LULI.

Status on the implementation of the Multi-Annual Regulatory Measures and the Plan for implementation of monitoring and control measures in the salmon fishery In Greenland.

The Government of Greenland has worked very hard to implement as many of the measures and initiatives as possible before the fishery season in 2015 and have already made plans to implement the last initiatives before the 2016 fishery. It is very important to the Government of Greenland to live up to its obligations in NASCO and to continue its work during more than 20 years to rebuild the North Atlantic Salmon stock. The measures agreed to during the Intersessional Meeting and the Annual Meeting in the West Greenland Commission is very extensive and will for the first time limit the people of Greenland's right to fish for their own survival. It will require great efforts from the Government and the people of Greenland to implement these measures and to act by them. However, the Government of Greenland is committed to continue the work. Below is given a short status/overview of the implementation process:

The Multi-Annual Regulatory Measures entails that Greenland should implement the following measures:

- One quota for all segments of the fishery, which includes professional and private fishermen.
- Unilateral catch limit, which ensures that any overharvest in one year is deduced in the following year.
- ✓ One quota for all fishermen was introduced in 2015- a quota of 45 tonnes was set.
- A unilateral catch limit is planned to be implemented in the spring of 2016.

The plan lays out the following measures to be implemented:

- All salmon fishermen will require a license and will be categorised as either licensed professional fisherman or licensed non-professional fishermen; only licensed professional fishermen will be authorised to sell salmon;
 - Only designated fish factories will be authorised to accept landings of salmon, and fishermen should be advised that landing of salmon at non-authorised factories is not permitted. Fish factories will report landings no less frequently than on a weekly basis;
 - Supervisors at the large open air markets will report all salmon offered for sale on a weekly basis;
 - Reports of all catches, including zero catch reports, will be required within 1 month of the end of the salmon fishing season at which time fishermen may apply for a license for the following season;
 - Failure to report catches as specified in (4) will result in no license being issued for the following year(s) even in the case of zero catch;
 - It will be a condition of the license that fishermen should allow samplers to take samples of their catches upon request; and
 - Information will be provided to fishermen and supervisors at open air markets about the sampling programme and the findings of the programme to date through the members' magazine of the Fishermen and Hunters Organization (KNAPK) and press releases.
-
- The introduction of a license for all fishermen is planned to be introduced during the spring of 2016.
 - Only designated fish factories will be authorized to accept landings of salmon. The factories must report on a daily-basis according to the new Executive Order.
 - A process to agree this with the municipalities, who are responsible for the open air markets is underway.
 - A reporting requirement of no reporting equals no license in the following year will be implemented in 2016 - this includes the requirement of all catches to be reported within 1 month of the end of the season and at this time apply for a new license.
 - ✓ The license condition was implemented before the 2015 season.
 - ✓ The NASCO brochure was issued with each license and forwarded to open air markets.

The Government of Greenland is very pleased to present this progress to the other members of the West Greenland Commission and continues its work to improve the monitoring, control and management of the salmon fishery in Greenland even further.

In addition to the measures in the plan the Ministry of Fisheries, Hunting and Agriculture changed the fishing season to 15. August - 31. October - a shortening of the season with 2 weeks.

Please do not hesitate to contact me or my staff for additional information.

Best regards

A handwritten signature in blue ink, appearing to read 'Emanuel Rosing', written in a cursive style.

Emanuel Rosing
Director-general

WGC(18)13

West Greenland Commission

***Working Papers to ICES on the Review of Phone Surveys
(2015, 2016 and 2017)***

Not to be cited without prior reference to the author

International Council for
The Exploration of the Sea

North Atlantic Salmon
Working Group
Working Paper 2015/35

**Results of the phone interview survey of licensed Greenlandic salmon fishermen
conducted in February 2015.**

by

Rasmus Nygaard
Greenland Institute of Natural Resources
P.O. Box 570, DK-3900 Nuuk, Denmark

Summary

The fishery for Atlantic salmon in Greenland waters started around 1960 and peaked in the early seventies at a catch of more than 2,000t a year. The fishery was quota regulated from 1972, but due to declining stocks, in June 1998 NASCO agreed that no commercial fishery for salmon should be allowed, but that the catch at West Greenland should be restricted to *'that amount used for internal consumption in Greenland, which in the past has been estimated at 20 tones'*. Since then export of salmon from Greenland has been banned by law and catches has been limited by internal by internal consumption, season and gear limitations. Unlicensed fishery for private consumption has always been allowed but limited to one gillnet per unlicensed fisherman. In order to sell catches and use more than 1 gillnet a license is required. From 2002 to 2011, licensed fishermen were only allowed to sell salmon to institutions, local markets and restaurants. However, in 2012 landing to factories producing for the Greenlandic home market was re-opened and a 35t quota was set by Greenland. The export ban, however, persists. The quota was not reached in either 2012 (13.7t) or 2013 (25.6t) and in 2014 the factory quota was reduced to 30 tons. However, in 2014, the factory quota was reached by September 22 and the factory landings stopped. After the factory landings had ceased it turned out, that a production facility that had not previously taken fish, had received salmon and the quota had therefore been exceeded by 5t. In 2014 the reported catches by February 2015 amounted to 58t of which 35t was landed to factories.

After 1997, it has been mandatory to report both private catches of salmon, but since most of the fisheries were for local or private consumption in a huge country with a small and scattered population, it is difficult to know how much unreported fisheries exists. The unreported catches have per tradition been estimated to 10 tons in lack of data. The fishery can be divided into segments with different sets of rules applying but in general the discrimination between the two is not straight forward. In order to obtain better knowledge about the fisheries and non reported catches, a phone interview was conducted among the licensed fishermen, asking questions about catches, effort, by-catches biological observations and opinion. In total 321 professional fishermen had obtained a license in 2014, but only 98 had reported catches by February 2015. The interviewers managed to get in touch with 207 people including at least 11 nonprofessional fishermen. In 119 cases, licensed fishermen informed that they had had catches but seemingly without reporting by the end of the season. The total underreporting by these 119 people amounted to 12.2 tons in the 2014 season. After the interview had been conducted, 98 of the 321 license holders, were still unaccounted for. About 2/3 of the unreported catch was provided by the 8 highest observations of non-reported catches and the majority of the 119 people that that had failed to report catches had taken minor amounts.

It was not possible to do a similar survey among non-licensed non-professional people since the potential pool of participants include all people owning a boat in Greenland.

Materials and methods

There are several ways that catches of Atlantic salmon are reported to the Greenland authorities. Salmon is the only species that must be reported by people fishing for their own households. Salmon landed to fish factories are reported to the authorities (GFLK¹) by the factory once a week, along with other species landed. Factories also report effort data, fishing location, names, dates and more, besides purchased amounts. Licensed fishermen are also obligated to report their catches directly to the license office. Salmon sold directly to consumers or caught for personal consumption must be reported directly to the authorities (GFLK) by the person conducting the fishery. The two sources of statistics were compiled and screened for errors, missing values and duplicate values. A license list was then used to collate information on the city or settlement and identify whether the fishermen had a license or not. In the 2014 season, 73 direct reports were identified as already reported by the factories (same fisherman, date and catch) and the duplicate reports were omitted from the analysis. An estimated weight was added to reports only containing a number of salmon caught (3.25 kg/salmon). The factory landings only contain a total weight and in this case the number of salmon was estimated via the 2012 mean weight. (3.25 kg gutted weight/salmon in 2012). Since 2005 it has been mandatory to report gutted weights, and data was converted to whole weight by means of a conversion factor of 1.11. In February 2015, the license office provided a list of license holders with contact information and three interviewers from GFLK called the license holders and did a phone interview asking questions about their salmon activities. Interviewer 1 (Juliane) interviewed fishermen from NW-Greenland, Interviewer 2 (Kirsten) interviewed fishermen from W-Greenland, and interviewer 3 (Per) interviewed fishermen from SW- and E-Greenland. The phone interview replies were then translated to Danish and finally English by the author and screened for errors. One interviewer had made 8 errors (same name for several people being interviewed) when noting the names of the person and in 6 cases there was no obvious match (noted as unknown 1-6) to the noted name. The other interviewers entered the phone interview results directly in an excel spreadsheet. One interviewer had also phoned at least 11 unlicensed but known nonprofessional fishermen that were interviewed. In general, these observations did not differ from licensed fishermen fishing for their own personal use and the interviews were accepted in the analysis.

Results

Do you fish salmon using Salmon nets?

The question was used as an introductory question, in order not to push directly to the answer. The question was asked to find out whether fishermen involved in other fisheries had applied for a salmon license in order to be able to sell by-catch taken in fisheries targeting other species and using different types of gears. This seemed to be the case for only two of the participants and therefore it seems reasonable to conclude that all license holders indeed use salmon nets to catch salmon. 69 fishermen (mostly IDEF) had also reported the number of gillnets used/owned and it is clear that most license holders only use (1-2) gillnets and in general fish for their family and friends households.

¹ License office – Government of Greenland office issuing licenses.

¹ GFLK - Greenland Fisheries License Control Authority. Government of Greenland institution dealing with control and enforcement of fisheries hunting and landing statistics.

Did you catch salmon using other types of gear?

The question was asked to find out more about the potential unreported by-catch of salmon in other types of gear outside the season. However all who replied said “no” meaning that they use Gillnets to catch salmon.

Did you have salmon by-catch outside the season ?

The question was asked to find out more about the potential unreported by-catch of salmon and occurrence of salmon outside the season. Since the salmon season normally runs from August 1 to the end of October, most fishermen targeting salmon will be involved in other types of fisheries outside the season. From the noted answers it seems clear that the questions were often mistaken for information on by-catch of other species in the salmon fishery. However, several comments implied that by-catches do occur in both poundnets, sinking gillnets and on sinking longlines, year around, but the total number observed was 1-2 per year by fishermen who had experienced it.

How much salmon did you catch in 2014 (kg)?

Obviously the main question of the whole interview. In total 321 professional fishermen had obtained a license in 2014, but only 98 had reported catches by February 2015. The interviewers managed to get in touch with 207 people including at least 11 nonprofessional fishermen. In 119 cases, licensed fishermen informed that they had had catches but seemingly without reporting by the end of the season. The total underreporting by these 119 people amounted to 12.2 tons in the 2014 season. After the interview had been conducted, 98 of the 321 license holders, were still unaccounted for. About 2/3 of the unreported catch was provided by the 8 highest observations of non-reported catches and the majority of the 119 people that had failed to report catches had taken minor amounts (figure 1). From the comparison between the logtransformed reported catches and the logtransformed interview catches there does not seem to be any systematic under or overestimate of the catches based on the memory (figure 2). Therefore it is likely that the fishermen who did report their catches by the end of the season, had reported all of their catches during the season.

How much salmon did you catch in 2014 (Number)

In many cases where small catches are taken, the total number is given instead of a total weight. In these cases a total weight was estimated by applying an estimated weight of 3 kg/ salmon. However this may lead to a systematic bias, but in general this correction was made for smaller catches.

How much did you land to factories?

The question was asked to compare factory landing reports with claimed landings by fishermen. In 2014, the different factories accepting salmon had reported catches by 48 different fishermen (all licensed). In the phone interviews only 17 fishermen provided an estimated factory landing. Only one incident of non-reporting by factories was observed, but

this seems likely due to typing error by the interviewer, as the claimed factory landing was unusually small (50 kg- smallest observed) for a factory landing (figur3).

How much did you sell at the local market?

no analysis

How much did you sell to hotels and institutions ?

no analysis

How much did you use privately?

109 licensed fishermen claimed that they were only fishing for private consumption, and most of them claimed fairly small catches (0-150 kg).

Where did you live when fishing salmon and Where did you sell the salmon ?

These questions were asked in order to clarify whether any transportation of salmon caught in settlements were landed in neighboring cities. In general, these questions were not well answered, but in two instances the fisherman informed that he was living in at settlement (Napasoq) and landing in a city with a factory (Maniitsoq).

How much salmon did you catch in 2013 (kg) or (number)?

No analysis performed.

Do you fish salmon every year ?

99 fishermen of 125 or almost 80% answered confirmed that they fish every year to some extent.

When did you start fishing salmon ?

No analysis

Do you fish salmon alone ?

The answer was asked in order to find out whether fishermen were cooperating and sharing nets which could lead to confusion in terms of reporting person. However most people claimed to fish alone, but in some instances people were working together.

Biology ?

The questions was asked to get a systematic impression about the fishermen's opinion. No results presented.

Comments UK regarding the salmon fishery ?

In general fishermen agreed that there is a lot of salmon in Greenland and there were a strong wish to increase the fishery. There was also a general wish to extend the season to include November, particularly in NW Greenland. There was also a general wish for factory landing opportunities in cities that did not already have this, and some also argued for a reopening of exports. Several fishermen also complained about gillnets not being tended regularly and being abandoned at the end of the season. The complaints were made by several people in Narsaq

and Qaqortoq. Therefore it seems possible that the abandoned nets were observed in the same area.

Discussion

Since the phone interview involved several levels of translation from Danish to Greenlandic and back, some meaning of the answer may be lost in translation. Likewise it seems likely that some of the phone interviews were performed over a poor phone connection and while the fisherman being interviewed was engaged with other businesses while being interviewed. If the interviewer conducted the interview in Danish there is a risk of mistaking salmon for arctic char which is also caught in gillnets (smaller meshes) during the summer, but in Greenlandic which was most likely used there is not the same risk of misinterpretation.

Table 1. Number of Gillnets owned/used per salmon fisherman.

Number of gillnets used/ owned per fisherman	NAFO ICES area											
	1AUM	1AUP	1AX	1B	1C	1D	1E	1F	SUB1	XIV	(blank)	Total
1						8	3	8		4		23
2						2	2	8		1	1	14
3			1			1	1	2				5
4						3						3
5						1		1				2
6			1			1						2
7						3		1				4
8							2					2
9						1	1				1	3
10						1	1	3				5
12								1				1
18								1				1
20			1				1	1				3
21							1					1
Grand Total			3			21	12	26		5	2	69

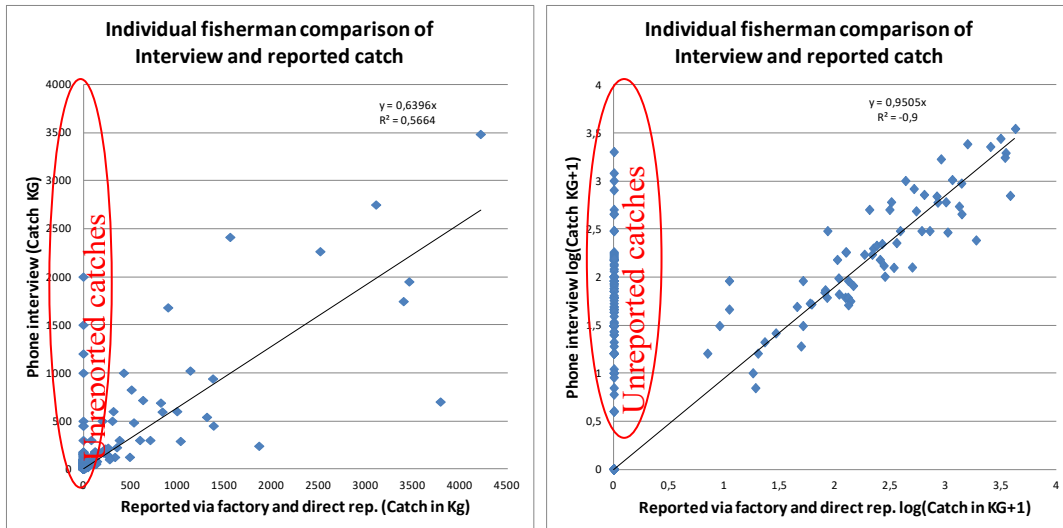


Figure 1. Individual fishermen comparison of reported catch by the end of the season through regular channels (whole weight) plotted against phone interview totals. The unreported catches amounts to 12.2 t in 2014.

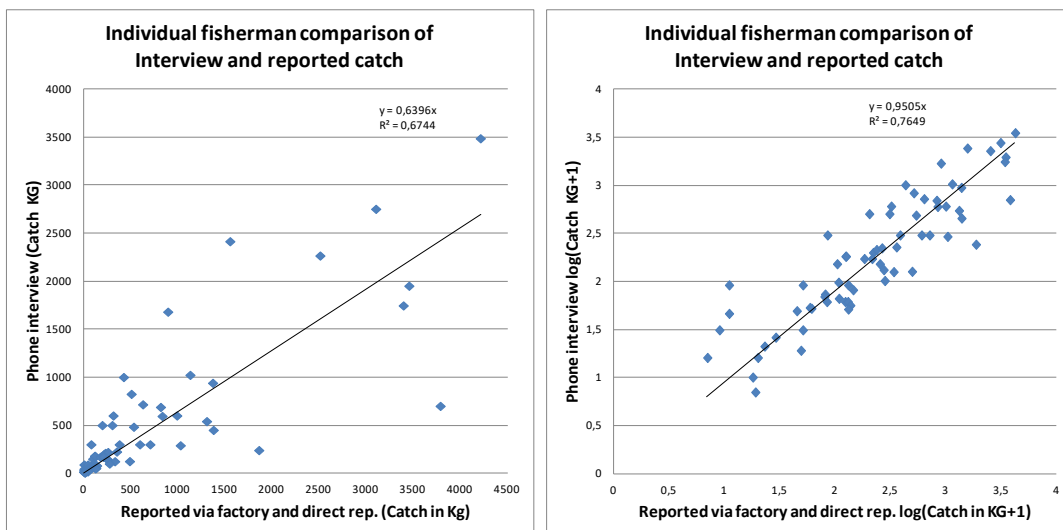


Figure 2. Individual fishermen comparison of reported catch by the end of the season through regular channels (whole weight) plotted against phone interview totals, excluding fishermen who did not report their catches by the end of the season.

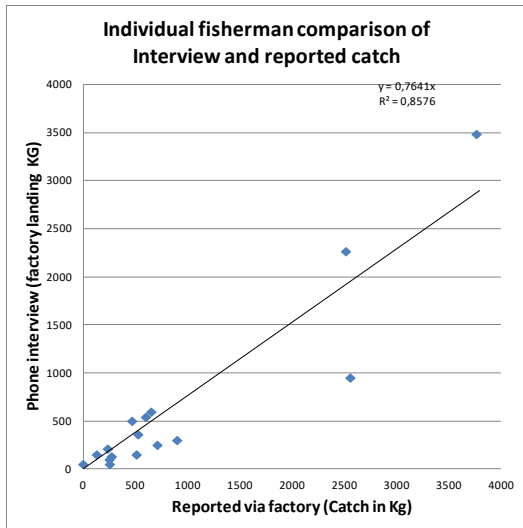


Figure 3. Comparison of factory landing totals per fisherman compared to phone interview estimates of factory landings.

Appendix I.

1AUP is the Upernavik district, 1AUM is the Uummannaq fjord district, 1AX is the Disko Bay, 1B-F is the rest of the Greenlandic West coast and ICES XIV is E-Greenland.

CITY / Settlement	NAFO / ICES Area	Reported Whole weight	Phone interview based on memory	CommentUK
Niaqornat	1AUM	0	45	the season should be extended. It is bad that there is no possibility for factory landing.
Uummannaq	1AUM	0	0	sincerely hopes that the season will be extended.
Kangersuatsiaq	1AUP	0	15	ok. If they (salmon, editor) could be factory landed more would fish for them.
Kangersuatsiaq	1AUP	0	90	he mostly fishes for Greenland halibut. Since there is no factory landing he mostly sels salmon by him self. If there was facrory landing oppertunity he would work more with salmon
Kangersuatsiaq	1AUP	0	6	ok. Because in Kangersuatsiaq they mostly have cod and wolffish (interpretation possible, editor)
Kangersuatsiaq	1AUP	0	75	the controlers doesn't control so much. Wishes that there was factory landing oppertunity because there really is a lot of salmon
Kangersuatsiaq	1AUP	0	30	ok
Kangersuatsiaq	1AUP	0	60	ok. Because in Kangersuatsiaq they mostly have cod and wolffish (interpretation possible, editor)
Kangersuatsiaq	1AUP	0	0	ok
Kangersuatsiaq	1AUP	0	30	it would be better if the season could be extended till the end of november. Hopes for factory landing oppertunity.
Kangersuatsiaq	1AUP	60	51	ok. If there was oppertunity for factory landing more would fish salmon.
Kangersuatsiaq	1AUP	118		he hopes that salmon can be factory landed.
Kangersuatsiaq	1AUP	122	60	ok. It is bad that they can't be factory landed.
Kangersuatsiaq	1AUP	0		
Kangersuatsiaq	1AUP	97		
Tasiusaq	1AUP	0		
Upernavik	1AUP	0	0	He doesn't know so much about salmon, so he doesn't fish for them. He has attempted to get a license (unaware that he has a licence, editor).
Upernavik Kujalleq	1AUP	103	150	The biologists are not always right. As a professional fisherman that is felt because there really is a lot of salmon.
Upernavik Kujalleq	1AUP	0		
Aappilattoq Upernavimmi	1AUP	0	0	ok
Aappilattoq Upernavimmi	1AUP	0	3	ok, because he mostly fish for Greenland halibut.
Akunnaaq	1AX	0	20	the season ends too early.
Akunnaaq	1AX	0	30	when they (the salmon,editor) have just arrived the season ends.
Akunnaaq	1AX	0	30	it would be good if there was a factory. The season ends to early.
Akunnaaq	1AX	0	15	it is bad that the season ends just when the salmon arrives.
Akunnaaq	1AX	17		nobody is fishing outside the season. The season is too short.
Akunnaaq	1AX	0	33	
Akunnaaq	1AX	0		
Ikamiut	1AX	0	75	when the salmon has just arrived, the season ends.
Ikamiut	1AX	0	48	the season ought to include November

Ikamiut	1AX	0	18	the season ends too early.
Ikamiut	1AX	0	9	when they have just arrived the season ends.
Ikamiut	1AX	10	45	the salmon season is too short.
Ikamiut	1AX	63		
Ikamiut	1AX	0	0	
Ilimanaq	1AX	0	3	Wishes that the season be extended, also for eiders, Guillemots and geese.
Ilulissat	1AX	0	0	has experienced that the catches were stolen by others :-(but the hunting officer didn't pick up the phone.
Ilulissat	1AX	0	24	when the salmon arrives the season ends. The season ought to be extended.
Ilulissat	1AX	0	0	he doesn't fish illegally in Uummannaq (??? editor)
Ilulissat	1AX	0	0	it is necessary that the season be extended.
Ilulissat	1AX	0	0	dislikes that the season ends too soon.
Ilulissat	1AX	0	0	dislikes that the season ends too soon.
Ilulissat	1AX	0	0	dislikes that the season ends too soon.
Ilulissat	1AX	0	30	dislikes that the season ends just when the salmon has arrived.
Ilulissat	1AX	0	0	dislikes that the season ends just when the salmon has arrived.
Ilulissat	1AX	0	15	he disagrees that the season must end so early, when the salmon has just arrived.
Ilulissat	1AX	327		
Ilulissat	1AX	0	0	
Ilulissat	1AX	0		
Ilulissat	1AX	0		
Ilulissat	1AX	0		
Kitsissuarsuit	1AX	0	63	the season ends too early.
Kitsissuarsuit	1AX	0	0	it is bad that there is no factory.
Kitsissuarsuit	1AX	0	9	dislikes that the season ends so early.
Kitsissuarsuit	1AX	0		
Kitsissuarsuit	1AX	0		
Qasigiannuit	1AX	0	100	the season ends too soon. They do not arrive until the end of the season.
Qasigiannuit	1AX	0	30	dislikes that the season ends so early.
Qasigiannuit	1AX	0	0	it is bad that the season ends just when the salmon arrives.
Qasigiannuit	1AX	0	100	just started in 2014.
Qasigiannuit	1AX	0	9	wishes that the season will be extended.
Qeqertarsuaq	1AX	0	42	one could live from salmon fishery, if the season did not end so soon.
Qeqertarsuaq	1AX	0	135	It is necessary that the season be extended.
Qeqertarsuaq	1AX	0	0	if the occupation (fishermen, editor) was taken better care of, it would be easier to live as a fisherman.
Qeqertarsuaq	1AX	0	0	wishes that the season be extended.
Qeqertarsuaq	1AX	0	42	the season is too short.
Qeqertarsuaq	1AX	0	0	has a bad bag so has stopped fishing.
Qeqertarsuaq	1AX	0	114	from July to August there is no salmon. A little arrives in September. In October there is plenty. Hopes that the season can be extended to mid-November.
Qeqertarsuaq	1AX	0	450	the season opens too soon in Sisimiut. The season should start later.
Qeqertarsuaq	1AX	0	30	thinks that the season ends too soon and ends too soon. It is bad that there is no factory and therefore he doesn't fish for salmon.
Qeqertarsuaq	1AX	18	6	hopes that the season be extended.

Qeqertarsuaq	1AX	1865	240	has been fisheing with his farther since childhood. Does not think that the season should be extended.
Qeqertarsuaq	1AX	123	180	the salmon arrives late and the season ends early.
Qeqertarsuaq	1AX	130	90	the season is fine, because the weather gets unstable late in the season
Qeqertarsuaq	1AX	83	60	(meaning difficult to understand in greenlandic, editor)
Qeqertarsuaq	1AX	105		
Qeqertarsuaq	1AX	0	0	
Qeqertarsuaq	1AX	0		
Qeqertarsuaq	1AX	134		
Qeqertarsuaq	1AX	0		
Qeqertarsuaq	1AX	84	300	
Qeqertarsuaq	1AX	0	0	
Aasiaat	1AX	0		
Aasiaat	1AX	25		
Aasiaat	1AX	88		the season should be longer.
Aasiaat	1AX	6	15	the season ends too early.
Aasiaat	1AX	48	18	dislikes that the season ends so early.
Aasiaat	1AX	0	0	the season closes too early. Hopes it can be extended. It would be fine to include november in Aasiaat.
Aasiaat	1AX	0	30	the season is open to little time.
Aasiaat	1AX	0	0	The salmon arrives when the season ends. That not good.
Aasiaat	1AX	0	45	dislikes that the season ends so early.
Aasiaat	1AX	0	3	There is good control. The season ends to soon.
Aasiaat	1AX	0	0	it is too early that the season ends.
Attu	1B	50	30	hasen't caught so much in rivers. (related to previous quest, editor)
Attu	1B	0	45	one cant catch so much. Wishes that the season will be extended. In 1970-1980 they received bonus (if they landed more, editor)
Attu	1B	0	9	It is difficult to sell salmon, so he doesent fish a lot for them. The season ends too soon.
Iginniarfik	1B	0	10	the season should be extended.
Iginniarfik	1B	0	0	dislikes that the season ends so early.
Kangaatsiaq	1B	0	30	the salmon seems to arrive later so the season ought to be extended.
Kangaatsiaq	1B	0		
Kangaatsiaq	1B	0		
Kangaatsiaq	1B	0	0	
Kangaatsiaq	1B	0		
Sarfannguuit	1B	0	90	no
Sisimiut	1B	0	0	Salmon arrives in Sisimiut first and moves northward in september, October. There is a lot of salmon. About 100 years ago there was a shop owner (Daaversuaq) in Sarfannguuit/Sisimiut, who made and sold canned salmon, and later became the welthiest man in the settlement and aquired Greenlands firs bigger woodned boat.
Sisimiut	1B	0		it is way (the access,editor) to open for fishery of salmon and to many non professional fishermen, one can't controle during the season.
Sisimiut	1B	0	60	no
Sisimiut	1B	0	0	in 2013 at Napasoq there were small salmon in gillnets (about 40 cm.)
Sisimiut	1B	0	60	In south Greenland 10 tons more are landed (interpretation possible, editor). In mid Greenland the factory landing is to

				small, maybe one ought to distribute the quota more evenly and extend the factory landing (season, editor).
Sisimiut	1B	0	1500	The salmon quota should be increased and that there is no (reason to, editor) worry about the stock.
Sisimiut	1B	319	600	The salmon season and factory landing is way to short and when teh season ends at 24:00 one can not sell salmon which are caught before midnight. Somebody ought to do something about this.
Sisimiut	1B	429	1000	likes the season
Sisimiut	1B	50	90	considering that it could be as a profession.
Sisimiut	1B	356	225	It is a problem that frozen salmon cant be sold at the local markets (local markets are not allowed to sell frozen meat, editor).
Sisimiut	1B	0		
Sisimiut	1B	0		
Sisimiut	1B	0		
Sisimiut	1B	313		
Sisimiut	1B	0		
Sisimiut	1B	0		
Sisimiut	1B	0		
Sisimiut	1B	0		
Sisimiut	1B	0		
Sisimiut	1B	0		
Sisimiut	1B	1041		
Sisimiut	1B	198		
Atamik	1C	10	90	there should be a common statement from the fishermens union (KNAPK, editor)
Atamik	1C	710	300	no, but one could reopen factory landing of salmon.
Atamik	1C	17	9	no
Atamik	1C	130	50	no, but the quota is too small.
Atamik	1C	469		
Atamik	1C	101		
Atamik	1C	143		
Atamik	1C	59		
Atamik	1C	31		
Atamik	1C	588		
Atamik	1C	72		
Atammik	1C	0	100	no
Atammik	1C	0	120	no
Atammik	1C	136	55	just changes in the gear (?, editor), it si bad to use beachfixed gillnets.
Atammik	1C	0		
Atammik	1C	0		
Atammik	1C	0		
Atammik	1C	0		
Atammik	1C	0		
Atammik	1C	0		
Atammik	1C	0		
Kangaamiut	1C	0	100	no
Kangaamiut	1C	511	825	no

Kangaamiut	1C	270		no
Kangaamiut	1C	279	100	20 t of salmon for factory landing to RG in all of Greenland is not enough.
Kangaamiut	1C	0		
Kangaamiut	1C	0		
Kangaamiut	1C	1514		
Kangaamiut	1C	0		
Kangaamiut	1C	114		
Kangaamiut	1C	180		
Kangaamiut	1C	65		
Kangaamiut	1C	0		
Kangaamiut	1C	0		
Kangaamiut	1C	409		
Kangaamiut	1C	0		
Kangaamiut	1C	218		
Maniitsoq	1C	0	0	No comments.
Maniitsoq	1C	0	0	it would be good, if one could sell to factory.
Maniitsoq	1C	0	15	It would be good if salmon could be exported.
Maniitsoq	1C	0	150	arsuk area is where the salmon arrives first.
Maniitsoq	1C	0	15	Thinks that if driftnes were used, much more salmon could be caught. After they started using fixed gillnets they dont catch quite as much.
Maniitsoq	1C	0	155	Thinks that one should start selling to factories.
Maniitsoq	1C	0		no
Maniitsoq	1C	0	0	no
Maniitsoq	1C	0	0	There is indeed so many (salmon, editor), it would be (word missing, editor) if the quota is increased.
Maniitsoq	1C	0	165	no
Maniitsoq	1C	0	150	a hunting officer is missing in Maniitsoq, (the hunting officer, editor) is invisible.
Maniitsoq	1C	995	600	there are too many rules. Nonprofessional fishermen of salmon are not controlled and there are too many non-professionals.
Maniitsoq	1C	899	1680	In the beginning of may there are salmon taken in poundnets (cod target species, editor), the factory landing is too limited, and (quota, editor) should be increased. The price for salmon is too low in the local market.
Maniitsoq	1C	252	150	increase the quota
Maniitsoq	1C	384	300	thinks that it would be good for the fishermen, if one starts to factory land again.
Maniitsoq	1C	308	500	the quota is to small. It was better when there was no quota.
Maniitsoq	1C	1382	450	since there are so many salmon, it would be better if one could (factory) land them.
Maniitsoq	1C	8	30	no
Maniitsoq	1C	0		
Maniitsoq	1C	501		
Maniitsoq	1C	218		
Maniitsoq	1C	347		
Maniitsoq	1C	0	450	
Maniitsoq	1C	0		
Maniitsoq	1C	0		
Maniitsoq	1C	0		
Maniitsoq	1C	0		

Maniitsoq	1C	0	
Maniitsoq	1C	0	
Maniitsoq	1C	0	
Maniitsoq	1C	0	
Maniitsoq	1C	0	
Maniitsoq	1C	0	
Maniitsoq	1C	0	
Maniitsoq	1C	206	
Maniitsoq	1C	0	
Maniitsoq	1C	73	
Maniitsoq	1C	1292	
Maniitsoq	1C	0	
Maniitsoq	1C	54	
Maniitsoq	1C	22	
Maniitsoq	1C	63	
Maniitsoq	1C	366	
Maniitsoq	1C	68	
Maniitsoq	1C	328	
Napasoq	1C	0	90 Ought to be sold to factories
Napasoq	1C	0	0 connection lost
Napasoq	1C	0	5 has no complaints, only fishes for own consumption.
Napasoq	1C	0	15 (?, editor)
Napasoq	1C	0	300 wishes that it will stay as a proffession.
Napasoq	1C	0	
Napasoq	1C	0	
Napasoq	1C	0	
Nuuk	1D	44	48
Nuuk	1D	1135	1022,5
Nuuk	1D	19	15
Nuuk	1D	129	60
Nuuk	1D	22	20
Nuuk	1D	263	220
Nuuk	1D	1375	940
Nuuk	1D	0	
Nuuk	1D	0	1200
Nuuk	1D	107	65
Nuuk	1D	273	130 ok.
Nuuk	1D	0	84 ok.
Nuuk	1D	0	
Nuuk	1D	0	
Nuuk	1D	0	
Nuuk	1D	0	
Nuuk	1D	0	
Nuuk	1D	0	
Nuuk	1D	0	
Nuuk	1D	0	
Nuuk	1D	0	
Nuuk	1D	0	
Nuuk	1D	0	
Nuuk	1D	0	
Nuuk	1D	0	
Nuuk	1D	0	
Nuuk	1D	0	
Nuuk	1D	0	
Nuuk	1D	0	

Nuuk	1D	0		
Nuuk	1D	0		
Nuuk	1D	0		
Nuuk	1D	0		
Nuuk	1D	12		
Nuuk	1D	2227		
Nuuk	1D	262		
Nuuk	1D	159		
Qeqertarsuatsiaat	1D	839	595	
Qeqertarsuatsiaat	1D	3458	1950	ok.
Qeqertarsuatsiaat	1D	3398	1745	ok. There is plenty of salmon
Qeqertarsuatsiaat	1D	493	125	ok. There is plenty of salmon
Qeqertarsuatsiaat	1D	3790	700	ok. There is a lot of salmon.
Qeqertarsuatsiaat	1D	0		
Qeqertarsuatsiaat	1D	0		
Qeqertarsuatsiaat	1D	0		
Qeqertarsuatsiaat	1D	0		
Qeqertarsuatsiaat	1D	858		
Qeqertarsuatsiaat	1D	260		
Arsuk	1E	3106	2750	
Arsuk	1E	160		OK
Arsuk	1E	4216	3484	ok. The salmon flesh was brighter this year
Arsuk	1E	1558	2413	ok. There is a lot of salmon.
Arsuk	1E	2514	2264	ok. There is plenty.
Arsuk	1E	235	211	ok.
Arsuk	1E	1311	541	ok.
Arsuk	1E	633	716	ok
Arsuk	1E	214	170	ok. There really is a lot of salmon.
Arsuk	1E	0		
Paamiut	1E	0	84	
Paamiut	1E	0	32	
Paamiut	1E	1032	290	ok. It is a problem that there is no factory landing of salmon, because there is a lot.
Paamiut	1E	0	180	ok. Somebody thinks that is is ok to fish (salmon, editor) for bait.
Paamiut	1E	0	70	ok. There is plenty of salmon, but there is a need for a factory.
Paamiut	1E	0		
Paamiut	1E	0		
Paamiut	1E	0		
Paamiut	1E	0		
Alluitsup Paa	1F	336	124	ok. There is a lot of salmon, but nobody to sell to.
Alluitsup Paa	1F	0	150	ok. There is a lot of salmon, but not enough people to sell to. That is a problem.
Alluitsup Paa	1F	0	60	ok
Alluitsup Paa	1F	0	8	ok. There is a lot of salmon.
Eqalugaarsuit	1F	0	130	
Nanortalik	1F	202	500	ok. One could catch more salmon, because there is a lot, but they are not sold commercially
Nanortalik	1F	124	180	ok. It is a problem that there is no factory landing of salmon, because there is a lot of salmon.

Nanortalik	1F	0	175	OK
Nanortalik	1F	0	26	ok. It is a problem that there is no factory landing of salmon, because there is a lot of salmon.
Nanortalik	1F	0		
Nanortalik	1F	0		
Nanortalik	1F	0		
Nanortalik	1F	0		
Nanortalik	1F	0		
Nanortalik	1F	43		
Narsaq	1F	80	72	
Narsaq	1F	58	52	
Narsaq	1F	601	300	ok. There is no factory.
Narsaq	1F	28	25	ok. It is a problem that some that do not tend their nets regularly, and there are lots of abandoned nets.
Narsaq	1F	182	170	ok. There is a bigger need for control, since there are a lot of gillnets that are just abandoned.
Narsaq	1F	822	689	ok. It is a big problem that there is no factory.
Narsaq	1F	0	80	ok. There is a great failure with gillnets that are just abandoned. It is a problem that there is no factory.
Narsaq	1F	0	2000	ok. He caught a tagged salmon, and says that there are many that just abandon their nets. (+ unreadable)
Narsaq	1F	0	70	ok.
Narsaq	1F	0	98	ok.
Narsaq	1F	0		
Narsaq	1F	0		
Qaqortoq	1F	106	96	
Qaqortoq	1F	0	500	
Qaqortoq	1F	536	483	ok. It is a problem that there is no direct factory landing.
Qaqortoq	1F	219	197	ok. It is very problematic that there is no factory landing. There are many who abandon their nets by the end of the season, that is a big problem.
Qaqortoq	1F	79	68	ok. There are many gillnets that are just abandoned.
Qaqortoq	1F	0	100	ok It is problematic that there is no factory landing.
Qaqortoq	1F	0	170	ok. It is very problematic that there is no factory landing. There is a big need for a factory.
Qaqortoq	1F	0	160	ok. It is problematic that there is no factory, because there is a lot of salmon.
Qaqortoq	1F	0	1000	ok It is problematic that there is no factory, because there is a lot of salmon.
Qaqortoq	1F	0	52	ok. There is a need for a factory receiving salmon, because there is a lot of salmon.
Qaqortoq	1F	0		
Qaqortoq	1F	0		
Aappilattoq	1F	0		
Nanortalimmi				
Ikerasaarsuk	SUB1	0	0	just started in 2014.
	SUB1	0		
	SUB1	0	24	ok. He landed to KGH (Royal Greenlandic trade company) many years ago. At that time the weighed 5 kg. Now they weigh 8 kg. Mostly fish for his own family as he has no factory landing opportunity.
	SUB1	0		
	SUB1	0		
Kulusuk	XIV	0		
Kuummiut	XIV	144	80	ok.

Kuummiut	XIV	0	70	ok. There is plenty of salmon, but there is a need for a factory. There is a great need for this.
Kuummiut	XIV	0		
Kuummiut	XIV	0		
Kuummiut	XIV	0		
Kuummiut	XIV	0		
Kuummiut	XIV	0		
Kuummiut	XIV	0		
Tasiilaq	XIV	0	38	ok.
Tasiilaq	XIV	0	30	ok. Fishery for salmon is only to personal use, because there is no factory.
Tasiilaq	XIV	0	56	ok. There is no factory.
Tasiilaq	XIV	0		
			147	
			11	
			301	
			90	
			48	
			90	ok
			800	ok. There is a lot of salmon.
			26	ok.

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**Results of the phone interview survey of licensed Greenlandic salmon fishermen
conducted in February 2016.**

by

Rasmus Nygaard
Greenland Institute of Natural Resources
P.O. Box 570, DK-3900 Nuuk, Denmark

Summary

Introduction

In Greenland people have been allowed to catch salmon for personal use (food for the family) for decades, but only licensed professional fishermen are allowed to sell their catch. Both licensed and non-licensed people are obligated to report their catch. In the 2015 season 310 fishermen had received a license to fish and sell salmon, but by February 2016 only 114 had reported their catches. To find out whether the 2/3 not reporting had actually been fishing and identify the extent of unreported catches, GFLK (Greenland Fisheries Control Authority), APNN (the fisheries department) and GINR (Greenland Institute of Natural Resources) conducted a phone interview survey among the fishermen that had failed to report as they should. The survey was conducted in the end of February 2016, and managed to get in touch with 105 of the 196 (197 in table likely due to a typo in the classification of one fisherman) that had failed to report. The total estimate of unreported catch from the licensed segment in 2015 was 5t, which is far less than in 2014 (20-30t). It was not possible to do a similar survey among non-licensed people, since the number and contact information is unknown.

Materials and methods

All catch reports received by GFLK were screened for errors and the license list was merged to the data via the social security number noted on the catch reports. License holders that had not reported any catch was then identified, and the license office (fisheries department) then added the contact information to the list. Three employees (two clerks and a hunting officer all Greenlandic and Danish speaking) from GFLK then phoned and interview the fishermen. To ease the process, fewer questions was asked than in the previous year, but more effort was given in making notes about comments and correctly noting whether catch was in kg or Number of fish.

Results

The phone survey confirmed that the small catches reported from areas North of Sisimiut, was indeed because of poor fishery for those who tried and lagging fishery from the rest, within the season. Apparently it is normal that salmon has arrived late in the season in the North, but in 2015 it seems they did not arrive at all before the season ended. 34 fishermen interviewed from the Disko Bay and Upernavik only gave an additional 43 kg of salmon that had not previously been reported (Table 1). In Divisions 1B-1E the unreported catch per fisherman was fairly constant and the highest average additional catch per fisherman was found in South Greenland. The estimated catch of the fishermen that was not interviewed was estimated with a weighted average by division (Table 1). Summing the additional catch from the interview (2060kg) with the estimated catch from the rest (2941kg) gives a total estimate of 5t caught by fishermen that had failed to report their catch in the 2015 season.

Studying the comments (Table 2) provided by license holders reveals lots of useful information on the fishery and the fishermen. In division 1A many fishermen inform that they did not fish because of ice conditions and lag of salmon. They also report the general condition that salmon arrive later in the North than in the South. In the southern parts fishermen in general states that

there are lots of salmon but they wish for factory landing opportunities and simply would fish more if they could sell the catch.

Discussion

Since the phone interview involved several levels of translation from Danish to Greenlandic and back, some meaning of the answer may be lost in translation. Likewise it seems likely that some of the phone interviews were performed over a poor phone connection and while the fisherman being interviewed was engaged with other businesses while being interviewed. If the interviewer conducted the interview in Danish there is a risk of mistaking salmon for arctic char (It is normal to call char “laks” and Salmon “skællaks” in Greenland) which is also caught in gillnets (smaller meshes) during the summer, but in Greenlandic which was most likely used there is not the same risk of misinterpretation. Particularly in the 2014 season interview there were many incidents where it was difficult to determine whether catch in kg or total number of salmon caught was noted by the interviewer, making the results somewhat uncertain. In 2015, the number of questions was reduced and there did not seem to be the same uncertainty of whether weight or number was noted and in general the data quality seemed better in the 2015 interviews. The survey on the 2015 season confirms that there was little salmon fishery available in North Greenland (1A) during the 2015 season and most fishermen did not fish salmon for various reasons (Ice conditions, poor fishery of colleagues).

Whereas fishermen’s organizations and spokesmen often give the impression of a unified homogeneous group, individual comments given by fishermen reveal a more shaded picture of their opinions and observations. For instance, whereas some demand higher quotas and factory landings others are content with current regulations and management. Also, normal catch statistics can only reveal differences in the catches, but not give the explanations for the differences. Studying the interviews and comments however reveal the reasons why the statistics looks as it does. Normal statistics would for instance only reveal that the fishery was low in an area (1A in 2015), but the comments reveals that most fishermen did not report, simply because they did not fish at all (due to poor fishery and ice conditions), and therefore exclude the possibility that people simply did not report their catches.

Table 1.

Area	Not reporting	Interviewed	%	Interview sum of kg	Avg Kg	Std kg	Non interviewed estimate	Total estimate
1A Uummannaq	1	0	0,0					
1A Upernavik	10	2	20,0	0	0	0	0	0
1A Disko Bay	62	32	51,6	43	1	4	40	83
1B	27	11	40,7	249	23	48	362	611
1C	48	36	75,0	380	11	33	134	514

1D	16	13	81, 3	430	33	11 1	99	529
1E	3	2	66, 7	45	23	32	23	68
1F	28	8	28, 6	913	114	25 8	2283	3196
XIV	2	1	50, 0	0	0		0	0
Grand Total	197	105		2060			2941	5001

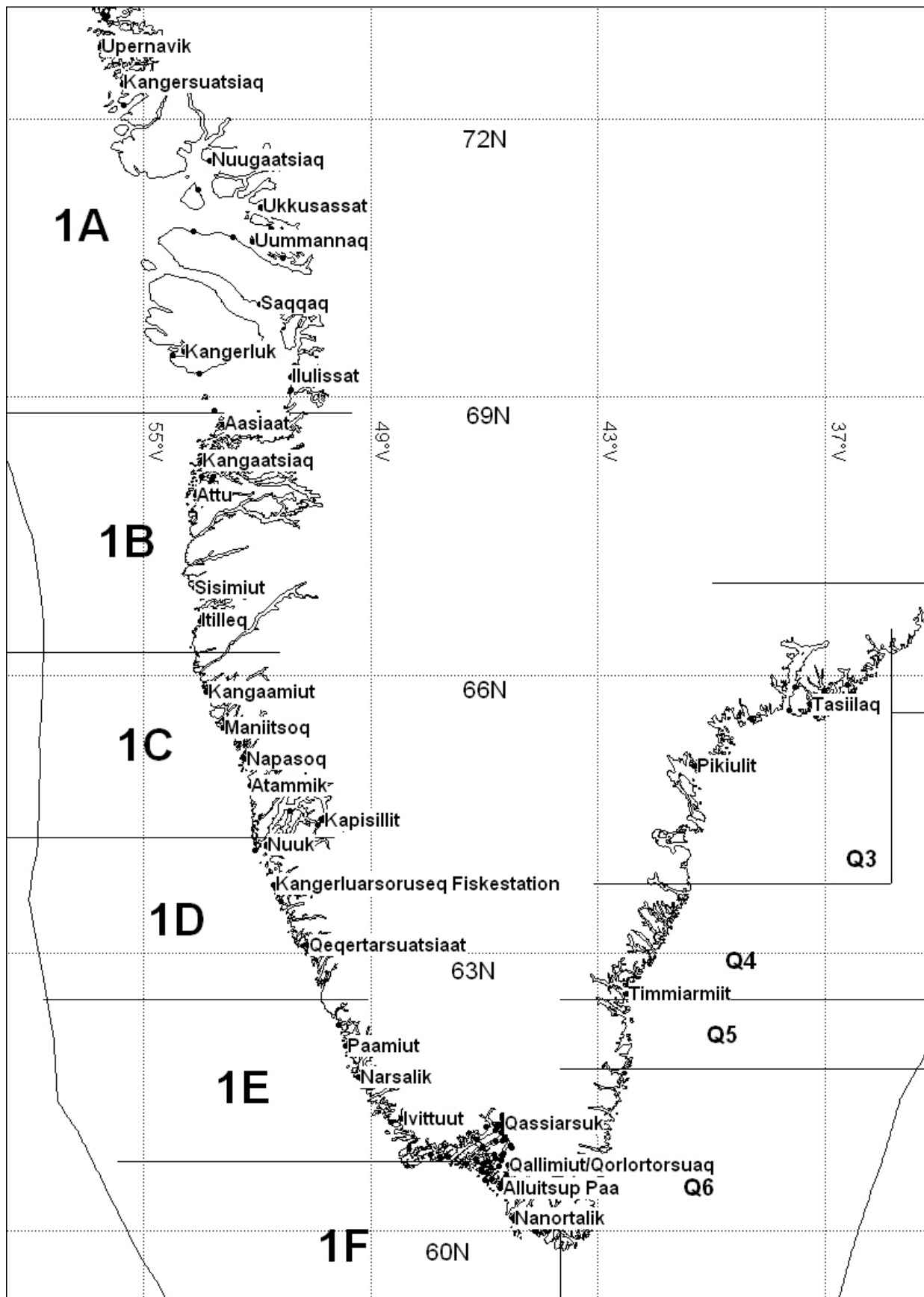


Fig 1. Map of Greenland including cities/settlements and NAFO/ICES area.

Appendix I.

1AUP is the Upernavik district, 1AUM is the Uummannaq fjord district, 1AX is the Disko Bay, 1B-F is the rest of the Greenlandic West coast and ICES XIV is E-Greenland. Interviewer is the person interviewing, N is interview number, Nets is number of gillnets used. Comment is fisherman's comments translated from Greenlandic to Danish to English. Sorted North to south.

Interviewer	NrPrlnterviewer	City	Area	Kg	Antal	Antal Garn	comment
2	43	Kangersuatsiaq	1AUP	0	0		No catch. There was no salmon in the north in 2015, which is very rare. Normally they do not arrive until the end of september and they only have one month to fish them, so it would be better if the season lasted until November 15 in North Greenland. Occasionally one can catch salmon in nets when fishing for Greenland halibut (Editor: Deepwater sinking gillnets 300-1000m).
2	44	Kangersuatsiaq	1AUP	0	0		No catch. Did try but didnt catch any in 2015
1	1	Akunnaaq	1AX	9	3	1	Caught 3 salmon. There was almost no salmon in 2015, the season should be extended
1	6	Ikamiut	1AX	0	0		No catch. The season closed just as salmon arrived in the north.
1	7	Ikamiut	1AX	10	2	3	2 big salmon. The fishery was better than in 2014. Salmon arrives when the season ends.
1	9	Ikamiut	1AX	0	0	0	No catch. The season should be extended
1	25	Ilulissat	1AX	0	0	0	No catch. Thinks that the season ends too soon.
1	26	Ilulissat	1AX	0	0		No catch. Did not fish.
1	29	Ilulissat	1AX	0	0	3	No catch. Did have gillnets hanging. The season should be extended.
1	30	Ilulissat	1AX	0	0		No catch
1	31	Ilulissat	1AX	0	0		No catch. His gillnets was taken (editor; stolen or removed)
1	10	Kitsissuarsuit	1AX	0	0		No catch. Is no longer interested in catching salmon.
1	21	Qasigiannuit	1AX	0	0		No catch. did fish in the season but didn't catch any. The season should be extended.
1	22	Qasigiannuit	1AX	3	1	6	Caught 1 salmon. had 6 fixed gillnets hanging in the season but only caught one salmon. The salmon season is too early in the north.
1	23	Qasigiannuit	1AX	15	5	10	Caught 4 to 5 salmon. Not better than 2014. The season should be extended 2 weeks
1	35	Qeqertarsuaq	1AX	0	0		No catch. Couldn't fish because there were so many little icebergs in the area.
1	39	Qeqertarsuaq	1AX	0	0		No Catch. Season worse than 2014. could not fish due to icebergs
1	40	Qeqertarsuaq	1AX	0	0		No catch. No comments
1	41	Qeqertarsuaq	1AX	0	0		No catch. Did not fish because of icebergs.
1	42	Qeqertarsuaq	1AX	0	0		No catch. Has stopped catching since he is too old.
1	43	Qeqertarsuaq	1AX	0	0		No catch.
1	45	Qeqertarsuaq	1AX	0	0		No catch. There is no salmon and only a few in the fjords.
1	46	Qeqertarsuaq	1AX	0	0		No catch. Did not fish due to icebergs.
1	48	Qeqertarsuaq	1AX	0	0		No catch. The fishery was better than in 2013-2014

Interviewer	NrPrInterviewer	City	Area	Kg	Antal	Antal Garn	comment
1	49	Qeqertarsuaq	1AX	0	0		No catch.
1	50	Qeqertarsuaq	1AX	0	0		No catch. No time to chat.
1	52	Qeqertarsuaq	1AX	6	2	20	Caught 2 salmon. The fishery was the same as in 2014
1	33	Saqqaq	1AX	0	0		No Catch. Did not have a boat. Received a new boat but late in the season
1	13	Aasiaat	1AX	0	0		No catch. Mostly fishes for cod.
1	14	Aasiaat	1AX	0	0		No catch
1	16	Aasiaat	1AX	0	0		No catch. Salmon equipment (editor:New salmon nets) arrived just as the season ended.
1	17	Aasiaat	1AX	0	0		No catch. Did not get a licens although he applied (Editor; apparently unaware that he has a license). Needs a new license this year since he has 3 children to support and usually has 4 employees.
1	18	Aasiaat	1AX	0	0		No catch. Did not fish due to illness.
1	19	Aasiaat	1AX	0	0		No catch. There were almost no salmon this year
1	3	Attu	1B	24	8	2	caught 8 salmon in one hour, and thought that was enough for he family. Did send his salmon report. Would like improved salmon fishery, factory landings and extended season.
1	4	Attu	1B	0	0		No catch
1	5	Iginniarfik	1B	150	50	4	Caught about 50 salmon. Is content with the fishery in 2014 and 2015. did not catch small salmon.
1	53	Kangaatsiaq	1B	0	0		No catch. Wants to reapply for a salmon license.
2	38	Kangaatsiaq	1B	0	0		No catch. In the last 5 years salmon has arrived much later in North Greenland and the season ends just as salmon arrives.
2	39	Kangaatsiaq	1B	0	0		No catch.
2	31	Sisimiut	1B	0	0		No catch. In the most recent years salmon has arrived later than in the south. Did not fish in 2015. was abroad on seal fur campaing during the season last year
2	33	Sisimiut	1B	75	25	4	Caught 20 to 30 for own use. The fishery is the same as in 2014
2	34	Sisimiut	1B	0	0		No catch.
2	36	Sisimiut	1B	0	0	0	Did not catch salmon in 2015, just cod, but heard that there were lots of salmon.
2	37	Sisimiut	1B	0	0		No catch. was seriously ill. Thinks that the quota should increase since there are so many salmon, and that factory landings should be reintroduced so fishermen can earn more.
3	14	Atammik	1C	0	0		No catch
3	17	Atammik	1C	0	0		No catch
3	18	Atammik	1C	30		2	30 kg. Fishery better than 2014. management ok.
3	19	Atammik	1C	0	0		No catch
3	20	Atammik	1C	0	0		Damaged engine (no catch)
3	21	Atammik	1C	0	0		No catch
3	22	Atammik	1C	0	0		No catch
3	23	Kangaamiut	1C	0	0		No catch
3	24	Kangaamiut	1C	0	0		No catch
3	25	Kangaamiut	1C	70		1	Caught 70 kg. Better than 2014, content with management.
3	26	Kangaamiut	1C	0	0		No catch
3	27	Kangaamiut	1C	0	0		No catch

Interviewer	NrPrIntervi ewer	City	Area	Kg	Antal	Antal Garn	comment
	3	28	Kangaamiut	1C	0		No catch
	3	29	Kangaamiut	1C	150		2 150 kg. The fishery was like 2014.
	3	30	Maniitsoq	1C	0		No catch
	3	31	Maniitsoq	1C	0		No catch.
	3	32	Maniitsoq	1C	0		No catch.
	3	38	Maniitsoq	1C	0		No catch.
	3	39	Maniitsoq	1C	0		No catch.
	3	40	Maniitsoq	1C	0		No catch.
	3	41	Maniitsoq	1C	0		No catch.
	3	42	Maniitsoq	1C	0		No catch.
	3	43	Maniitsoq	1C	0		No catch.
	3	44	Maniitsoq	1C	0		No catch.
	3	45	Maniitsoq	1C	0		No catch.
	3	46	Maniitsoq	1C	30		1 Caught 30 kg. The season was better than 2014. Management is ok.
	3	47	Maniitsoq	1C	0		No catch.
	3	48	Maniitsoq	1C	0		No catch.
	3	49	Maniitsoq	1C	0		No catch.
	3	50	Maniitsoq	1C	0		No catch.
	3	51	Maniitsoq	1C	0		No catch.
	3	52	Maniitsoq	1C	0		No catch.
	3	53	Maniitsoq	1C	0		No catch.
	2	28	Napasoq	1C			Catch ? (reported catch could not be found by editor) Claims to have reported catches already the season was much better in 2015 than in 2014 and there is a lot of salmon. a factory is missing.
	2	29	Napasoq	1C	100	23	1 Caught 23/about 100 kg. Did not fish in 2014 (editor cant compare to 2015). There is salmon in the fjords near Napasoq year around. Factory is missing but there is too many salmon.
	2	30	Napasoq	1C			2 No catch. Only fish for own consumption since factory landing oppertunities is not available but has heard that there are lots of salmon. likes the higher quotas as the numbers of salmon are increasing.
	3	1	Nuuk	1D	400		4 Caught about 400 kg. Fishery same as 2014. Management is ok
	3	2	Nuuk	1D	0		No catch.
	3	3	Nuuk	1D	0		No catch.
	3	4	Nuuk	1D	0		No catch.
	3	8	Nuussuaq, Nuuk	1D	0		No catch.
	3	9	Nuussuaq, Nuuk	1D	0		No catch.
	3	10	Nuussuaq, Nuuk	1D	0		No catch.
	3	11	Nuussuaq, Nuuk	1D	0		No catch.
	3	12	Nuussuaq, Nuuk	1D	0		No catch.
	3	13	Nuussuaq, Nuuk	1D	0		No catch.
	3	5	Qeqertarsuat siaat	1D	30		1 Caught 30 kg. The fishery was better than 2014, the management is fine
	3	6	Qeqertarsuat siaat	1D	0		No catch.

Interviewer	NrPrInterviewer	City	Area	Kg	Antal	Antal Garn	comment
3	7	Qeqertarsuaat	1D	0	0		No catch.
2	20	Paamiut	1E	45	15	1	Caught 15 for own use. No change in 2015, there are still lots of salmon. Factory landings should reopen like in the old days since there is too many salmon.
2	21	Paamiut	1E	0	0		No catch. There is too little control by the hunting officers, especially when there is quota on all species, because there is lots of illegalities and too many sparetime fishermen during the salmon season. The licensed fishermen has a hard time selling their catch since there are no factory landings.
2	2	Alluitsup Paa	1F	75	25	1	Caught 20-30 for own consumption. There was a lot of salmon in 2015, and more and more the last couple of years. Especially in august and September.
2	13	Nanortalik	1F	0	0		No catch. There was lots of salmon in 2015. Although there is lots of salmon the fishermen had to stop early, since the factory landings opened very late.
2	14	Nanortalik	1F	46			Caught about 46 kg for his own consumption. In July, lots of small salmon are caught near the river mouth in Uunartoq fjord, and year after year there are more and more. Missing af factory.
2	15	Nanortalik	1F	0	0		No catch. The hunting officers should be more visible during the season. Between nanortalik and Qaqortoq there are many nets without name info.
2	17	Nanortalik	1F	0	0		No catch.
2	18	Nanortalik	1F	36	12	1	Caught 11 or 12 for his own use. There is no hunting officer in Nanortalik but one is needed. Hopes for salmon landings.
2	11	Narsaq	1F	6	2		Caught 1 or 2 for own consumption. needs a factory
2	6	Qaqortoq	1F	750		10	Caught 700-800 kg. Has seen small salmon less than 1 kg and there are lots of them. In 2015 there were lots of salmon just as in 2014 but no factory landing oportunities. Caught 2 salmon with black spots that looked like a char with big head near Qaqortoq.
2	1	Tasiilaq	XIV	0	0	0	No catch. Did not have a boat for many years but sails with his brothers.

**Results of the phone interview survey of licensed Greenlandic salmon fishermen for the
2016 season.**

by

Rasmus Nygaard¹, Lars Uldall-Jessen², Per Nukaaraq Hansen² and Juliane Villadsen²

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Greenland Institute of Natural Resources
P.O. Box 570, DK-3900 Nuuk, Greenland
Phone +299 361200

2

Kalaallit Nunaanni Aalisarsinnaanermut Akuersissutinik Nakkutilliisoqarfik (KANUAANA)
Grønlands Fiskerilicenskontrol (GFLK)
Greenland Fisheries Licence Control Authority
P.O. Box 501. 3900 Nuuk
Oq./Tel.: +299 34 53 07

Summary

In the 2016 season 263 fishermen had received a license to fish and sell salmon, but by February 2016 only 75 licensed fishermen had reported their catches. To find out whether the licensed fishermen not reporting had actually been fishing and identify the extent of unreported catches in this segment, GFLK (Greenland Fisheries Control Authority) and GINR (Greenland Institute of Natural Resources) conducted a phone interview survey among licensed fishermen. The survey was conducted in March 2017, and managed to get in touch with 49 random licensed fishermen of which 30 had not reported catches during or after the 2016 season. A weighted average by area indicated an estimated unreported catch of 4249 kg of Salmon in the 2016 season. It not possible to do a similar survey among non-licensed people. The phone survey confirmed that the small catches reported from areas North of Sisimiut, was indeed because of poor fishery for those who tried and lagging fishery from the rest, within the season. Apparently it is normal that salmon has arrived late in the season in the North, but in 2015 and 2016 it seems they hardly arrived at all.

Introduction

In Greenland people have been allowed to catch salmon for personal use (food for the family) for decades, but only licensed professional fishermen are allowed to sell their catch. Both licensed and non-licensed people are obligated to report their catch. However in spite of ads in TV, Radio and newspapers and general information folders only about 1/3 of all salmon-license holders normally report their catches during the season. This leaves the administration with the question of how much salmon was caught by the 2/3 of license holders who failed to report their salmon catches. In order to gain more knowledge about this segment a phone survey among licensed fishermen has been initiated in the most recent 3 years.

Materials and methods

All catch reports received by GFLK were screened for data errors and the list of licenseholders was merged on. For each area random licensed fishermen were phoned and interviewed about the 2016 season. Total reported salmon catch for each licenseholder was calculated and compared to the interviews.

Results

Question 1. *How much salmon did you catch last year?*

To account for the regional differences in the distribution of fishermen and salmon the analysis was stratified by NAFO areas. Only interviewed fishermen who had not previously reported catch was used in the analysis of non-reported catch. For each area, non-reported catch was calculated by multiplying the number of fishermen failing to report, with the average admitted catch from the phonesurvey (table 1). A similar analysis was performed in 2016 for the 2015 season (Table 2). The total estimate of non-reported catch from the licensed fishermen was 4249 kg and thus slightly lower than the estimate for the 2015 season and much lower than the 2014 estimate of 20-25 mt.

Question 2. *Do you plan to catch salmon this year?*

46 of 49 fishermen confirmed that they would try to catch salmon again this year and 3 did not answer the question.

Question 3. *Was your salmon fishery better last year than the year before?*

11 replied that there were more and 19 replied that there were less in 2016. However, in the southern region (1DEF) 8 replied that there were more salmon in 2016 and 6 replied less. In the northern regions 1ABC just 3 replied more and 13 replied less.

Question 4. *Were there more or fewer salmon last year than 10 years ago?*

In south Greenland (1DEF) all fishermen agree that there were either the same level (5) or more (10) salmon than 10 years ago. In contrast the agreement further north was that there were less (13) salmon than 10 years ago rather than more (3).

Question 5. *How many gillnets did you use last year?*

Fishermen are allowed to use up to 20 gillnets (sections of 60m) but the majority of fishermen use far less. It is obvious that some fishermen mistake the meaning of the question and replies just one gillnet rather than the number of sections. However, most fishermen seem to use 1-4 gillnets and can still catch significant amounts of salmon.

Question 6. *Comments for the management.*

The comments made by fishermen supports some general observations made from other datasets. In general there seems to be a strong wish to reopen factory landings of salmon and a perception amongst fishermen that there are lots of salmon, particularly in South Greenland. In Northern Greenland there is a perception that salmon arrives after the season has ended and in the previous years there has been a great wish to move the season to later in the year (including November). See appendix II for full list of comments.

Discussion

Since the phone interview involved several levels of translation from Danish to Greenlandic and back, some meaning of the answer may be lost in translation. Likewise it seems likely that some of the phone interviews were performed over a poor phone connection and while the fisherman being interviewed was engaged with other businesses while being interviewed. At least one person being interviewed had mistakenly stated number as catch in kg when comparing to what he actually reported. Another fisherman had clearly misunderstood the season since he stated no catch although he had reported salmon during the season. Whereas fishermen's organizations and spokesmen often give the impression of a unified homogeneous group, individual comments given by fishermen reveal a more unique picture of their opinions and observations. Whereas some demand higher quotas and factory landings others are content with current regulations and management. Normal catch statistics can only reveal differences in the catches, but not give the explanations for the differences. Studying the interviews and comments, reveal the reasons why the statistics looks as it does. Normal statistics would for instance only reveal that the fishery was low in an area (1A in 2015 and 2016), but the comments reveals that most fishermen did not report, simply because they did not fish for various reasons. The survey on the 2015 season confirms that there was little salmon available in North Greenland (1A) during the 2015 season and that most fishermen did not fish salmon

for various reasons (Ice conditions, poor fishery of colleagues). The same situation seems evident in 2016.

Table 1. 2017 interview estimate of non-reported catch from licensed fishermen for the 2016 season.

Area	Licensed fishermen	Licensed Reporting	Licensed Not Rep	Not rep Interview	%	Sum Kg	Avg Kg	std Kg	Total in Kg
1AUum	2	0	2	1	50	0	0		0
1AUpv	7	2	5	1	20	0	0		0
1ADis	52	7	45	9	20	53	6	17	265
1B	35	9	26	4	15	15	4	8	98
1C	71	25	46	3	7	75	25	43	1150
1D	26	8	18	8	44	360	45	70	810
1E	20	10	10	2	20	130	65	49	650
1F	41	13	28	2	7	45	23	32	630
XIV	9	1	8	-	-	-	-	-	-
Total	263	75	188	30	16	678	23	44	4249

Table 2. 2016 interview estimate of non-reported catch from licensed fishermen for the 2016 season.

Area	Not reporting	Interviewed	%	Interview sum of kg	Avg Kg	Std kg	Non interviewed estimate	Total estimate
1A Uummannaq	1	0	0,0					
1A Upernavik	10	2	20,0	0	0	0	0	0
1A Disko Bay	62	32	51,6	43	1	4	40	83
1B	27	11	40,7	249	23	48	362	611
1C	48	36	75,0	380	11	33	134	514
1D	16	13	81,3	430	33	111	99	529
1E	3	2	66,7	45	23	32	23	68
1F	28	8	28,6	913	114	258	2283	3196
XIV	2	1	50,0	0	0		0	0
Grand Total	197	105		2060			2941	5001

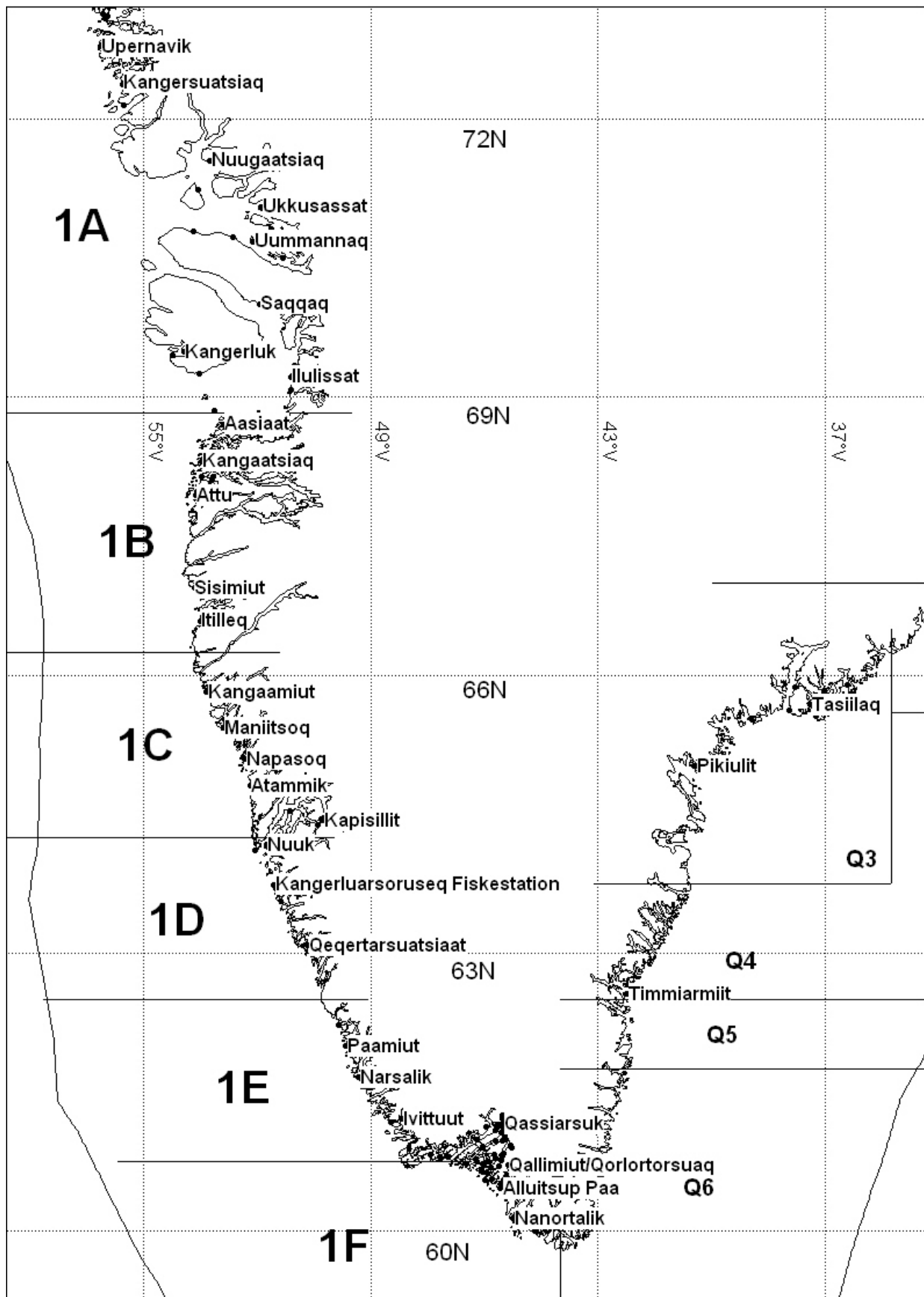


Fig 1. Map of Greenland including cities/settlements and NAFO/ICES area.

Appendix I.

1AUP is the Upernavik district, 1AUM is the Uummannaq fjord district, 1AX is the Disko Bay, 1B-F is the rest of the Greenlandic West coast and ICES XIV is E-Greenland. Red indicates that KG catch was estimated from either number or reported catch.

N	Area	City/settlement	Reported # salmon	Reported catch Kg	Question 1 weight	Question 1 Num	Question 2	Question 3	Question 4	Question 5
4	1AUM	Niaqornat	0	0	0					
5	1AUP	Upernavik	3	20	15		Yes	No	fewer	2
14	1AUP	Kangersuatsiaq	0	0	0		Yes	No	fewer	2
1	1AX	Ilulissat	16	75	16		Yes	Same	fewer	6
2	1AX	Ilulissat	0	0	0					
6	1AX	Qeqertarsuaq	0	0	50		Yes	Yes	more	4
7	1AX	Akunnaaq	0	0	3	1	Yes	No	fewer	6
8	1AX	Kitsissuarsuit	0	0	0		Yes	No	fewer	2
9	1AX	Qasigiannguuit	0	0	0		Yes	No	fewer	10
10	1AX	Qeqertarsuaq	0	0	0		Yes			
11	1AX	Qasigiannguuit	0	0	0		Yes	No	fewer	0
15	1AX	Ikamiut	0	0	0		Yes	No	fewer	
16	1AX	Aasiaat	0	0	0		Yes	No	fewer	
33	1B	Kangaatsiaq	0	0	0					
12	1B	Kangaatsiaq	0	0	0		Yes			
13	1B	Attu	0	0	0		Yes	No	fewer	2
37	1B	Itilleq	0	0	15	5	Yes		fewer	
38	1B	Sisimiut	35	105	105	30	Yes		fewer	
39	1B	Sisimiut	20	60	60		Yes	Yes	more	4
40	1C	Napasog	184	550	2700		Yes	No	same	4
41	1C	Napasog	0	0	0		Yes			
42	1C	Atammik	14	42	0		Yes	Yes	fewer	1
43	1C	Kangaamiut	0	0	0		Yes			
44	1C	Kangaamiut	114	237	237		Yes	No		1
45	1C	Maniitsoq	334	1047	1047	300	Yes	No	more	3
46	1C	Maniitsoq	0	0	75	25	Yes	No	same	4
47	1D	Qeqertarsuatsiaat	0	0	50		Yes		same	2
48	1D	Nuuk	0	0	0		Yes			
49	1D	Nuuk	486	1194	1194		Yes			
50	1D	Nuuk	0	0	0		Yes			
51	1D	Nuuk	0	0	0					

2	1D	Nuuk	0	0	0		Yes			
8										
2	1D	Nuuk	0	0	0		Yes			
9										
4	1D	Nuuk	114	266,5	200	60	Yes	Yes	same	1
0										
4	1D	Nuuk	0	0	150	40	Yes	Yes	more	1
1										
4	1D	Nuuk	0	0	160	45	Yes	Yes	same	2
2										
4	1D	Nuuk	19	49	130	40	Yes	No	same	2
3										
4	1D	Nuuk	155	423	469		Yes	Yes	more	2
9										
2	1E	Paamiut	0	0	100		Yes	No		
1										
2	1E	Paamiut	67	145	145		Yes		same	1
2										
4	1E	Paamiut	53	131	200	60	Yes	Yes	more	3
6										
4	1E	Paamiut	0	0	30	10	Yes	Yes	more	1
7										
1	1F	Qaqortoq	155	300	300		Yes	No	more	2
7										
1	1F	Qassimiut	0	0	0		Yes	No	more	
8										
1	1F	Narsaq	458	1042	1042		Yes	No	more	1
9										
2	1F	Narsaq	74	182	182		Yes	No	same	11
0										
4	1F	Qaqortoq	0	0	45	14	Yes		more	2
4										
4	1F	Qassimiut	10	30	30	10	Yes	Yes	more	1
5										
4	1F	Narsaq	191	435	1500		Yes	Yes	more	12
8										

Appendix II Comments made by fishermen for the 2016 season.

N	Area	City/settlement	Comment
4	1AUM	Niaqornat	Did not catch salmon in 2016.
5	1AUP	Upernavik	
14	1AUP	Kangersuatsiaq	It is rare that there is salmon in the area. Salmon only arrives every second year on average to Upernavik
1	1AX	Ilulissat	Because of Ice at Ilulissat it wasn't really possible to catch salmon.
2	1AX	Ilulissat	Did not catch salmon in 2016.
6	1AX	Qeqertarsuaq	Hopes the salmon season can be open to the end of October (Editor comm, It normally is)
7	1AX	Akunnaaq	
8	1AX	Kitsissuarsuit	
9	1AX	Qasigiannuguit	Wish the season could be later in the year.
10	1AX	Qeqertarsuaq	
11	1AX	Qasigiannuguit	There was a short time to catch salmon due to bad weather.
15	1AX	Ikamiut	Last year there was not so much salmon. We rarely caught any but there was a lot of bad weather.
16	1AX	Aasiaat	There were no salmon at Aasiaat last season.

3	1B	Kangaatsiaq	Did not catch salmon in 2016.
12	1B	Kangaatsiaq	
13	1B	Attu	
37	1B	Itilleq	Only caught as a bycatch in cod gillnets but will send a catch report.
38	1B	Sisimiut	Only caught for personal use as there is no factory landing. Sometimes sells to institutions if he can.
39	1B	Sisimiut	Catch reported. Only caught a few for personal use. The salmon were very fine, but they arrived much later.
30	1C	Napasoq	The salmon arrived later in the season. There was however lots of salmon. He sold them at the local market and reported them as one should.
31	1C	Napasoq	Was ill so he did not fish for salmon. If he had he would have reported his catch.
32	1C	Atammik	Did fish at the beach, but did not catch anything. He will send his 0 catch report.
33	1C	Kangaamiut	The engine was broken so no catch.
34	1C	Kangaamiut	Catch reported. He only caught for personal use since it is not possible to land to factories. He reported his catch but doesn't remember how much it was.
35	1C	Maniitsoq	Send in his catch report. Is not content that there is no factory landing and only fishes for personal use. Usually there is a bycatch of salmon in the poundnet.
36	1C	Maniitsoq	He only fishes for personal use because there is no factory landing. There is however plenty of salmon but last year they arrived much later in the season.
23	1D	Qeqertarsuaat	Catch reported. Only caught for himself as there were no factory landing. If there had been factory landing it would have been better. So please open the factory landings again.
24	1D	Nuuk	I didn't catch any salmon.
25	1D	Nuuk	Catch reported. There are lots of salmon but no factory landing so he sells at the local market. The hunting officer usually weighs and reports them for him.
26	1D	Nuuk	Did not fish for salmon.
27	1D	Nuuk	Has been away in the season.
28	1D	Nuuk	Did not catch salmon in 2016.
29	1D	Nuuk	The children played with the salmon gillnets and burned them (editor; maybe NASF will reward the kids ;-) so he could not fish for salmon.
40	1D	Nuuk	
41	1D	Nuuk	
42	1D	Nuuk	
43	1D	Nuuk	
49	1D	Nuuk	
21	1E	Paamiut	In the future we wish there would be factory landings again, because there is a lot of salmon.
22	1E	Paamiut	Catch reported. Would wish that one could land to factories because the apartments are so expensive. He only caught for his own use since it was not possible to land to the factory. Not even the Royals Greenland factory. Life is tough and it is a problem even paying your bills.
46	1E	Paamiut	
47	1E	Paamiut	
17	1F	Qaqortoq	Catch reported. The last couple of years there has been lots of salmon, but one should be lucky to land to factories. Therefore a lot of the catch is just for personal consumption but one can also sell to nursery homes and institutions or at the local market. However it is not easy to sell at other people also catch for their households.
18	1F	Qassimiut	There were no factory at Narsaq, so you spend 1½ hrs (editor on the fishing/transportation). There has been a factory that closed and reopened but it doesn't accept salmon. It would be great if they did because there are so many salmon.

19	1F	Narsaq	Catch reported. The season starts too late. It doesn't start until august 15, but it would be better august 1 because they are way to fat later in the season. It would be great if there was factory landing.
20	1F	Narsaq	Catch reported. If there were factory landing we could catch much more salmon.
44	1F	Qaqortoq	
45	1F	Qassimiut	
48	1F	Narsaq	

Comments for interviews 41-49 were assembled by the interviewer but not kept separate on individual fishermen. The assembled comments were: In 2016 there were more salmon than in 2015 and there were more in South Greenland than in the North. Although there is lots of salmon, the fishery has been limited due to missing factory landings and people has been limited to fish for their own personal use. Furthermore some Name and position a location in South Greenland with small salmon in a river.

WGC(18)11

***Multi-Annual Regulatory Measure
for Fishing for Atlantic Salmon at West Greenland***

RECOGNISING the existence of an internal-use fishery in Greenland;

RECOGNISING the responsibilities that the NASCO Convention confers on the West Greenland Commission;

CONSIDERING the interest to balance, to the extent possible, stock conservation needs with a fishery and the scientific advice provided to NASCO by ICES in 2018; and

ACKNOWLEDGING the importance of minimising impacts to stocks of contributing salmon populations in the West Greenland fishery;

Thus, the members of the Commission agree as follows:

- (1) Denmark (in respect of the Faroe Islands and Greenland) agrees not to export wild Atlantic salmon or its products from Greenland and to prohibit landings and sales of Atlantic salmon to fish processing factories;
- (2) Denmark (in respect of the Faroe Islands and Greenland) agrees to open the fishery no earlier than 15 August and to close the fishery no later than 31 October each year;
- (3) Denmark (in respect of the Faroe Islands and Greenland) agrees to restrict the total allowable catch for all components of the Atlantic salmon fishery at West Greenland to 30 metric tonnes. In the event of any overharvest in a particular year, Denmark (in respect of the Faroe Islands and Greenland) agrees to an equal reduction in the total allowable catch in the following year, and agrees not to carry forward any under-harvest into a future year;
- (4) Denmark (in respect of the Faroe Islands and Greenland) agrees to, in a timely manner, inform NASCO and, as appropriate, ICES, of improvements of the monitoring, management control and surveillance or any modification to the management of the Atlantic salmon fishery and to provide an annual report on the outcome of the fishery;
- (5) States of origin agree to share experiences with Denmark (in respect of the Faroe Islands and Greenland) on monitoring, management, control and surveillance in the salmon fishery through knowledge-sharing exchange programmes;
- (6) Denmark (in respect of the Faroe Islands and Greenland) agrees to annually collect and verify catch data of fishing activity of all licensed fishers;
- (7) Denmark (in respect of the Faroe Islands and Greenland) agrees to require all fishers for Atlantic salmon to have a licence to fish, and to prohibit fishing for Atlantic salmon without a licence;
- (8) Denmark (in respect of the Faroe Islands and Greenland) also agrees to authorise only licensed full-time hunters and fishers to sell Atlantic salmon only at open air markets in communities;

- (9) Denmark (in respect of the Faroe Islands and Greenland) agrees to require all licensed fishers for Atlantic salmon to provide a full accounting of fishing activity and harvest. Denmark (in respect of the Faroe Islands and Greenland) also agrees to require reporting on a daily basis to allow for in-season monitoring of the total allowable catch;
- (10) Denmark (in respect of the Faroe Islands and Greenland) agrees to prohibit all licensed fishers for Atlantic salmon who have not provided a full accounting of their catches, including reports for zero catches, within one month of the end of the fishing season at the latest, from acquiring a licence for the following season until required reporting is received. Within one month after the fishing season, Denmark (in respect of the Faroe Islands and Greenland) agrees to follow up with fishers who have not provided a full accounting of their catches, including zero catches;
- (11) As a condition of the licence, Denmark (in respect of the Faroe Islands and Greenland) agrees to require fishers to allow samplers from the NASCO sampling programme to take samples of their catches upon request;
- (12) Information should be provided to fishers and supervisors at open air markets explaining the rationale for the sampling programme. The findings of the sampling programme should be disseminated through appropriate means, with the assistance of the Government of Greenland, as requested; and
- (13) The Commission agrees to apply this regulatory measure to the fishery at West Greenland in 2018. The Commission also agrees to apply this measure in 2019 and 2020 unless:
 - a. any member of the Commission requests its reconsideration based on the review of the annual report pursuant to Paragraph 4 and / or
 - b. the application of the Framework of Indicators indicates that there has been a significant change to the indicators and, therefore, a reassessment is warranted.

WGC(18)10

West Greenland Fishery Sampling Agreement, 2018

The West Greenland Commission recognizes the important contribution of sound biological data to science-based management decisions for fisheries prosecuted in the West Greenland Commission area. The Parties to the West Greenland Commission have worked cooperatively over the past four decades to collect biological data on Atlantic salmon harvested at West Greenland. These data provide critical inputs to the stock assessment completed by the International Council for the Exploration of the Seas (ICES) North Atlantic Salmon Working Group annually.

The objectives of the sampling program in 2018 are to:

- Continue the time series of data (1969-2017) on continent of origin and biological characteristics of the Atlantic salmon in the West Greenland fishery;
- Provide data on mean weight, length, age, and continent of origin for use in the North American and European Atlantic salmon run-reconstruction models;
- Collect information on the recovery of internal and external tags.

To this end, the sampling program in 2018 will collect:

- Biological characteristics data including lengths and weights of landed fish;
- Information on tags, fin clips, and other marks;
- Scale samples to be used for age and growth analyses;
- Tissue samples to be used for genetic analyses;
- Other biological data requested by the ICES scientists and NASCO cooperators.

External Staffing Inputs:

Parties external to Greenland with interests in the mixed stock fishery at West Greenland, including Canada, the European Union, and the United States, have historically provided personnel and analytical inputs into the cooperative sampling programs. Parties to the West Greenland Commission agree to provide the following inputs to the cooperative sampling program at West Greenland during the 2018 fishing season:

- The European Union² agrees to provide a minimum of 8 person weeks³ to sample Atlantic salmon at West Greenland during the 2018 fishing season;
- Canada agrees to provide a minimum of 2 person weeks² to sample Atlantic salmon at West Greenland during the 2018 fishing season;
- The United States agrees to provide a minimum of 2 person weeks² to sample Atlantic salmon at West Greenland during the 2018 fishing season;

² Ireland (2 samplers) and the United Kingdom (2 samplers).

³ For the purposes of this agreement, a person week of sampling is defined as a trained individual who works on site in West Greenland to collect samples of Atlantic salmon for a period of 7 days.

- The Government of Greenland, in cooperation with the Greenland Institute of Natural Resources, will sample Atlantic salmon from the city of Nuuk on a weekly basis during the 2018 fishing season;
- The United States agrees to co-ordinate the sampling program for 2018; and
- The Government of Greenland, in cooperation with the Greenland Institute of Natural Resources, agrees to provide support for the sampling program by facilitating the sampling of Atlantic salmon by the samplers identified above.

In addition, Parties to the West Greenland Commission agree to provide the following technical support for sample analysis and data collected at West Greenland:

- The Government of Greenland, in cooperation with the Greenland Institute of Natural Resources and the Sampling Program Coordinator, will work with any factories receiving harvested salmon to collect biological characteristics data and samples from a proportion of the landed fish via factory staff;
- The United States agrees to provide oversight for the processing of all collected biological samples;
- The United States agrees to report the sampling program results to the ICES North Atlantic Salmon Working Group in support of the stock assessment completed by this group;
- The United States agrees to coordinate the publishing of a report that details the results of the sampling program. The report will be compiled in cooperation with institutes participating in the sampling program and will be published via a participating institution's official report series;
- Canada agrees to provide microsatellite DNA analysis of tissue samples collected from Atlantic salmon harvested at West Greenland;
- Canada agrees to provide ageing of scale samples collected from Atlantic salmon harvested at West Greenland;
- Canada agrees to maintain the historical West Greenland sampling database; and
- The European Union (UK (England & Wales)) agrees to act as a clearing house for coded wire tags recovered from the fishery.

Government of Greenland Coordination Efforts:

The Government of Greenland agrees to identify a mechanism to provide sampling access to landed Atlantic salmon before grading / culling and before fish are subject to health regulations that would restrict or prohibit activities associated with sampling.

The Government of Greenland agrees to inform persons designated by cooperating NASCO Parties of important developments in the management of the West Greenland fishery including planned openings and closures of the Atlantic salmon fishery at West Greenland.

The allocation of available scientific sampling personnel will be determined annually by the Program Coordinator to provide spatial and temporal coverage to characterize both the fishery and the Atlantic salmon populations along the West Greenland coast. Parties participating in the cooperative sampling program will share access to resulting data and work cooperatively in the publication of information.

CNL(18)11

*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 2018¹;
- 1.2 report on significant new or emerging threats to, or opportunities for, salmon conservation and management²;
- 1.3 provide a compilation of tag releases by country in 2018; and
- 1.4 identify relevant data deficiencies, monitoring needs and research requirements.

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

- 2.1 describe the key events of the 2018 fisheries³;
- 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;

*In the event that NASCO informs ICES that the Framework of Indicators (FWI) indicates that reassessment is required:** (The aim should be for NASCO to inform ICES by 31 January of the outcome of utilising the FWI).

- 2.4 provide catch options or alternative management advice for the 2019 / 2020 - 2021 / 2022 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 rebuilding⁴; 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 2018 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;

*In the event that NASCO informs ICES that the Framework of Indicators (FWI) indicates that reassessment is required:** (The aim should be for NASCO to inform ICES by 31 January of the outcome of utilising the FWI).

- 3.4 provide catch options or alternative management advice for 2019-2022 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 rebuilding⁴; 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 2018 fisheries³;
- 4.2 describe the status of the stocks⁵;

*In the event that NASCO informs ICES that the Framework of Indicators (FWI) indicates that reassessment is required:** (The aim should be for NASCO to inform ICES by 31 January of the outcome of utilising the FWI).

- 4.3 provide catch options or alternative management advice for 2019-2021 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 rebuilding⁴;
- 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 phone surveys are conducted, ICES should review the results and advise on the appropriateness for incorporating resulting estimates of unreported catch 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.*
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)
Biritá í Dali (WGC, manager representative)
Niall Ó Maoiléidigh (WGC, scientist representative)
Martha Robertson (ICES representative, Observer)
Patrick Gargan (Coordinator)

WGC(18)00***List of West Greenland Commission Papers***

WGC(18)00	List of West Greenland Commission Papers
WGC(18)01	Provisional Agenda
WGC(18)02	Draft Agenda
WGC(18)03	Report of the Copenhagen Inter-Sessional Meeting of the West Greenland Commission of the North Atlantic Salmon Conservation Organization
WGC(18)04	Report of the Conference Call Inter-Sessional Meeting of the West Greenland Commission of the North Atlantic Salmon Conservation Organization
WGC(18)05	Presentation of the ICES Advice for the West Greenland Salmon Stocks
WGC(18)06	Draft Proposed Regulatory Measure
WGC(18)06rev	Draft Proposed Multi Annual Regulatory Measure
WGC(18)07	Summary of the reports on the Greenland Salmon Fishery in 2015, 2016 and 2017 (Tabled by Greenland)
WGC(18)08	Agenda
WGC(18)09	Draft Report
WGC(18)10	West Greenland Fishery Sampling Agreement 2018
WGC(18)11	Multi-Annual Regulatory Measure for Fishing for Atlantic Salmon at West Greenland
WGC(18)12	Report of the Thirty-Fifth Annual Meeting of the West Greenland Commission of the North Atlantic Salmon Conservation Organization
WGC(18)13	Working Papers to ICES on the Review of Phone Surveys