



West Greenland Commission

WGC(18)03

***Report of the Copenhagen Inter-Sessional Meeting of the West Greenland
Commission of the North Atlantic Salmon Conservation Organization***

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Nordatlantens Brygge, Strandgade 91, Copenhagen, Denmark

27 February to 1 March 2018

1. Opening of the Meeting

- 1.1 The Chairman of the West Greenland Commission (WGC), Mr Carl McLean (Canada), opened the meeting and welcomed participants to Copenhagen. He had been advised by the Secretary that the Government of Greenland staff had been extremely helpful and supportive in securing the venue for this meeting and was extremely grateful for this. He also thanked the Secretary and staff at the NASCO Secretariat for making the arrangements for this meeting and indicated that he was looking forward to having fruitful discussions and exchanges over the next few days, noting that we have scheduled three days for the meeting and that this should provide ample time to address the agenda.
- 1.2 The Chair made a verbal Opening Statement (Annex 1).
- 1.3 In 2015, the West Greenland Commission adopted a Multi-Annual Regulatory Measure for Fishing for Salmon at West Greenland for 2015, 2016, and 2017. The Chair acknowledged Greenland for the substantial progress made in implementing this measure. He brought to the attention of the Commission that item 5 of the draft agenda says that they should consider a new Multi-Annual Regulatory Measure for the Salmon Fishery at West Greenland from 2018. He clarified that the Commission would not be considering a new regulatory measure at this meeting but hoped they could make progress on drafting conditions that could be considered in a possible new measure this week that makes sense for all members of this Commission and NASCO. He reiterated that he hoped the group would make substantial progress in setting up a solid basis to adopt a measure at the NASCO Annual Meeting in June.
- 1.4 The representatives of Canada, European Union and the United States made verbal Opening Statements to the meeting (Annex 2). The representative of Denmark (in respect of the Faroe Islands and Greenland) (DFG) did not wish to make an Opening Statement.
- 1.5 No Opening Statement was made on behalf of the Non-Governmental Organizations (NGOs) attending the meeting. However, the NGO representative indicated that he was very pleased to be able to attend the meeting. He indicated that the NGOs remained very concerned about the continuing poor status of Atlantic salmon stocks and the need for careful control of their exploitation. The NGOs were keen to see the continuation of effective conservation measures.
- 1.6 A list of participants is attached as Annex 3.

2. Adoption of the Agenda

- 2.1 The Commission adopted its Agenda, WGCIS(18)05 (Annex 4).

3. Nomination of a Rapporteur

- 3.1 Mr Ian Russell (European Union) was appointed Rapporteur for the meeting.

4. Review of the Multi-Annual Regulatory Measure for Fishing for Salmon at West Greenland for 2015, 2016 and 2017, WGC(15)21, taking into consideration the Six Tenets for Effective Management of an Atlantic Salmon Fishery

In 2015, the Commission adopted a Multi-Annual Regulatory Measure for Fishing for Salmon at West Greenland for 2015, 2016 and 2017, WGC(15)21, (Annex 5). The Chair summarised the various paragraphs included in the current measure and stressed that it would be important to consider each of these elements in detail over the course of the meeting.

Last year, the Commission had agreed to convene an Inter-Sessional Meeting to facilitate the consideration of a possible new regulatory measure to be adopted in 2018 and to consider the report of the 2017 fishery prior to the next regular meeting of the Commission. Details of the management measures in place for the 2017 fishery were issued to all Members of the Commission on 25 August 2017. The report on the fishery contained in WGCIS(18)04 (Annex 6) was provided to the Secretariat on 16 February 2018.

4.1 Report on the West Greenland Salmon Fishery in 2017 (*sub-paragraphs 1 and 2 of WGC(15)21*)

- 4.1.1 The representative of DFG provided a brief overview of the Greenland salmon fishery in 2017 WGCIS(18)04 (Annex 6). The management measures implemented before the 2015 fishery had continued in the fishery in 2016 and in 2017. The unilateral quota was set by DFG at 45 tonnes for the entire fishery in 2017, all segments included. The Executive Order setting a shorter fishing season continued and, as in 2016, the 2017 salmon fishery ran from 15 August - 31 October. Factory landings were not permitted in the 2017 salmon fishery, and the export ban remained in force. The Executive Order on catch reporting that was in force before the start of the 2016 season, and which required salmon catches to be reported by the number of fish as well as by weight, remained in place. The quota uptake, based on received reports, indicated a catch in 2017 of 26.8 tonnes, with the vast majority taken in West Greenland. The Greenland Fisheries Licence Control Authority (GFLK) continued its increased focus on control of the fishery, with reporting templates handed to fishermen reminding them of the requirement to report daily, or every time the nets were mended. There was also an information campaign through newspapers, TV and radio up to three times a week during the fishing season. The Ministry published weekly updates on the quota uptake. GFLK received approximately 630 catch reports of which around 160 were from private, unlicensed fishers. The representative of DFG added that the average annual catch over the three years of the current multi-annual regulatory measure had been

37.3 tonnes, including a catch of 58 tonnes in 2015, and noted that the catch for 2017 was still provisional.

- 4.1.2 The representative of the United States thanked the representative of DFG for the comprehensive report and welcomed the fact that the 2017 catch was below the 45 tonne quota. She asked whether the phone survey had been conducted again in 2017 and how much the preliminary catch of 26.8 tonnes might increase as a result of the phone survey. The representative of DFG confirmed that the phone survey was currently taking place and was following the same process and set of questions as in previous years. He highlighted that the process was time consuming as not all fishers spoke Danish, so the survey had to involve multiple interviewers; the full report of the 2017 fishery had therefore not yet been finalised. He was thus unable to provide any reliable indication of the likely increase in catch. However, he advised that the increase estimated from earlier phone surveys had been in the order of 5 tonnes.
- 4.1.3 The representative of Canada asked if there were any obvious reasons why the preliminary harvest in 2017 was below the quota; was this due to a reduction in effort? The representative of DFG indicated that there was no clear reason; the fishery fluctuated widely from year to year as a result of a wide range of factors. In response to a question from the Chair, he further confirmed that catches of other species such as cod and Greenland halibut were also widely targeted by fishers, probably reducing the effort targeted at salmon when other stocks were plentiful or more profitable.
- 4.1.4 The NGO representative noted that the number of catch reports received by GFLK had been broadly similar to last year and asked how these had been split between the different groups of fishers. The representative of DFG indicated that 630 catch reports had been received of which 160 were from private unlicensed fishermen. In response to a follow-up question from the NGO representative, he said it wasn't currently possible to indicate how many actual fishers the various returns represented, or to provide a breakdown of the catch between West and East Greenland. He anticipated that this information would be available once the report was finalised and indicated that he would contact scientific colleagues in Greenland to see if preliminary figures could be provided during the meeting (see 4.1.7).
- 4.1.5 The NGO representative congratulated the representative of the DFG for the weekly published reports in Greenland to keep fishers apprised about the catch taken to date and the remaining quota. He asked whether these reports could be more widely available. He felt the reports would be of value to the WGC, beneficial to those engaged in the catch sampling programmes, and of great interest to NGOs and others. The representative of DFG indicated that it would be possible to make these reports available.
- 4.1.6 The NGO representative also observed that while the phone survey didn't currently include private, unlicensed fishermen, he wondered whether the unlicensed fishers who reported in one year, but not the next, might be contacted to see if they had fished or not. This might help improve the phone survey methodology and could provide some indication of levels of under-reporting by unlicensed fishers. The representative of DFG indicated that it would be necessary to complete a thorough review of the different monitoring and control measures that had been in place over the three years of the current multi-annual regulatory measure. He noted that the phone survey had attracted

a number of adverse comments and complaints about the level of information required. He advised that a full evaluation of the effectiveness of the phone survey would be completed and made available to the Commission prior to the Annual Meeting.

- 4.1.7 Additional information was received from the representative of DFG in relation to written questions submitted during the meeting by Parties and NGOs; these questions and responses are provided in WGCIS(18)07 (Annex 7). In relation to the issue of submitting reports of zero catches, the representative of the United States wondered if there was any confusion in the information received. She believed that there would be no need to report if there had been no fishing undertaken, but if someone fished and had a zero catch then it would be necessary to report. Removing any ambiguity may help to clarify the overall level of effort. The representative of DFG indicated that it was clear in the Executive Order that all catches must be reported, and that this applied to both licensed and unlicensed fishers. He acknowledged that some changes in wording to the Executive Order may help to clarify the requirement around the need for reporting zero catch. In response to a question from the representative of Canada, the representative of DFG indicated that further analysis was necessary before they could comment further on the apparent variability in licence numbers, for example as a result of differences in the distribution of other target species such as Greenland halibut. The representative of the NGOs noted that some of the figures provided in the written responses relating to the number of licensed and unlicensed fishers for 2015 and 2016 differed from the information previously reported by ICES. The representative of DFG advised that this would be checked and that numbers will be confirmed and then included in WGCIS(18)07 (Annex 7) and provided to ICES.

4.2 **Progress in Implementing the Updated Plan for Implementation of Monitoring and Control Measures in the Salmon Fishery at West Greenland (*sub-paragraph 5 of WGC(15)21*)**

- 4.2.1 The Commission noted the progress in implementing the Updated Plan for Implementation of Monitoring and Control Measures in the Salmon Fishery at West Greenland, WGC(15)20 (Annex 8), as provided in the report on the Greenland fishery in 2017 WGCIS(18)04 (Annex 6). 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 licence condition requiring that samplers be allowed to take samples of catches upon request remained in force in 2017 and the NASCO sampling brochure was issued with each licence and forwarded to open air markets. However, the licensing of private/non-professional fishermen has not been implemented, nor has 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.
- 4.2.2 The representative of the United States asked if there were any obvious reasons for the decline in catch reporting by private fishers in the latest year; 200 catch reports had been made in 2016, but only 160 in 2017. The representative of DFG believed this was consistent with an overall reduction in fishing effort and the greater focus on fishing for other species. In response to follow-up questions from the United States, he added that there had been no further progress with regard to the earlier suggestion that licensing responsibilities might be transferred to local municipalities to facilitate potential licensing of non-professional fishers. He considered that such licensing arrangements were not possible under current arrangements. He also confirmed that the potential

sanction of withholding licences for failure to submit reports had not been taken forward.

- 4.2.3 The representative of Canada noted the requirement for fishers to submit zero returns where no catches were made and asked if such reports were received. The representative of DFG confirmed that such reports were received, but that details were not yet available for 2017. He further confirmed that additional information on the level of delayed reports in 2017 was not yet available. He hoped that colleagues might provide this information before the close of this meeting.
- 4.2.4 The NGO representative commented on the apparent contradiction that only 160 catch reports had been received from private fishers in 2017, but that the report on the 2016 fishery had suggested that there were larger numbers of such fishers. He questioned whether this meant that there was a large under-reporting issue. He also asked whether gear used by unlicensed fishers was marked. The representative of DFG did not believe there was a large under-reporting issue. He further confirmed that all gear used by both licensed and unlicensed fishers had to be marked and that wildlife officers were authorised to remove any gear that was unmarked.
- 4.2.5 The Chair asked if the representative of DFG could expand on why the changes in the proposed licensing arrangements for the fishery had proved controversial. The representative of DFG indicated that they needed to undertake a thorough review of the measures that had applied under the current multi-annual regulatory measure, including an evaluation of the phone survey and the implications of the six tenets in considering possibilities for a new measure. He highlighted that catches were currently low. He noted that some consideration had been given to reducing the length of the fishing season further, in part to reduce the effort required for monitoring and control measures. However, it would be necessary to review patterns of catches before any such decision was made. He advised that 2018 was an election year in Greenland and this may also have implications for the consideration of possible new measures; it was currently unclear whether the election would be in spring or later in the year. He confirmed that it was planned to complete a more detailed evaluation of the current multi-annual regulatory measure prior to the Annual Meeting.
- 4.2.6 The representative of Canada asked whether there were any catch per unit effort data for the 2017 fishery that might suggest the harvest reduction was linked to reduced effort. The representative of DFG indicated that further information might be available once full analysis had been completed; any such information would be available before the Annual Meeting. In response to a question from the Chair, he indicated that he had heard no anecdotal reports from fishers to suggest changes in the abundance of salmon at West Greenland. In response to an additional question from the Chair, he indicated that the decision not to allow factory landings had contributed to the lower catch in 2016 and 2017, in combination with the lower quota in 2016, and that changes in the distribution of other target species likely also influenced the change in catch from year to year.
- 4.2.7 The Chair suggested that it would be helpful if Parties could put the additional questions of clarification to DFG in writing, to facilitate the representative from DFG in seeking further information from colleagues during the course of this meeting. Parties agreed to this request. Responses to some of these questions are included in Annex 7. Additional questions will be forwarded to DFG through the Secretariat as soon as possible.
- 4.2.8 In response to a question from the NGO representative, the representative of ICES

confirmed that details arising from the sampling programme at West Greenland would not be available before the meeting of the Working Group on North Atlantic Salmon.

- 4.2.9 In response to a question from the representative of the United States, the representative of DFG confirmed that there had been extensive ongoing dialogue with supervisors at open air markets to facilitate reporting. Wildlife officers visit the markets regularly (at least twice a week in the larger communities) and frequently remind fishers of the need to report; they also used these visits to distribute information, such as the NASCO brochure. There was thus a high level of engagement with fishers, and he believed that this had resulted in a marked improvement in the level of reporting from open air markets.
- 4.2.10 In concluding this agenda item, the Chair asked Parties for any further comments relating to the various measures itemised in the Updated Plan for Implementation of Monitoring and Control Measures in the Salmon Fishery at West Greenland WGC(15)20 (Annex 8). In response to requests for clarification, the representative of DFG advised that it is mandatory for all licensed fishers to use the reporting template and to provide details of both the numbers and weight of all fish caught. This applies to factories also. Details of the numbers of fish landed should be available once the full report of the 2017 fishery is available. He noted that efforts were continuing to explore the utility of reporting systems elsewhere. However, DFG was not in a position to implement changes at the current time and that technical issues such as internet access continued to represent a limitation. In response to a question from the NGO representative, he indicated that the weekly reports made available to fishers in Greenland should be more widely available. The representative of the United States noted that the potential for denying fishers a licence for failure to report remained an important issue for them under the regulatory measure, so a better understanding of the reasons for non-implementation would be welcome. The Chair clarified that the current wording in the agreement relating to fishers having to report when they mended their nets appeared to be causing confusion and the wording ‘tended their nets’ might be preferable. The representative of DFG confirmed that fishers were required to report every time they make landings, and that this could be done by phone or email. He further confirmed that no further consideration had been given to a pilot carcass tagging trial in Greenland at this stage.
- 4.2.11 The representative of the United States noted that undertakings had been made by Greenland on a range of issues that had been identified for further analysis (e.g. outcome of phone survey, the extent to which effort targeted at salmon was affected by effort targeted at other species) and that these would be available prior to the Annual Meeting. She stressed that it would be helpful to have this information in writing in advance of the Annual Meeting to facilitate full and careful consideration. The representative of DFG suggested that a further inter-sessional meeting immediately prior to the Annual Meeting might be one possibility. However, the representative of the United States felt it would be preferable to have updates prior to this. The Chair agreed to keep agenda items 4.1 and 4.2 open pending further clarification from Greenland on the various issues raised, and the question of an additional inter-sessional meeting and the timeline to receive additional information from DFG would be considered later in the agenda.

4.3 Update on Improvements to Monitoring and Control Measures in the light of the Findings of the Six Tenets Self-assessments (*sub-paragraph 6 of WGC(15)21*)

- 4.3.1 The *Ad Hoc* Working Group on Monitoring and Control, which met in Nuuk, Greenland, in October 2014, had developed a matrix for applying the six tenets for effective management of an Atlantic salmon fishery and used this to evaluate the monitoring and control of the salmon fishery at West Greenland. This evaluation resulted in the agreement of enhancements in the form of the Updated Plan for Implementation of Monitoring and Control Measures in the Salmon Fishery at West Greenland, WGC(15)20 (Annex 8). The Working Group had recommended that the six tenets be applied by all Members of the WGC and had recognised that the evaluation of these fisheries should be consistent with that undertaken for the salmon fishery at West Greenland. At its Thirty-Second Annual Meeting, the WGC agreed Terms of Reference for an *Ad hoc* Working Group on the Application of the Six Tenets for Effective Management of an Atlantic Salmon Fishery, WGC(15)23.
- 4.3.2 The Working Group had developed a revised matrix but recognised that due to the number of jurisdictions involved in the broader application of the six tenets, it would be a substantial task for a group to conduct the assessments. The Working Group had, therefore, recommended that self-assessments be undertaken using the revised matrix, and proposed that it would be more consistent with the review of the Greenland salmon fishery if these self-assessments were then subject to review. At its 2016 Inter-Sessional Meeting, the Commission had agreed the revised matrix for the Application of the Six Tenets for Effective Management of an Atlantic Salmon Fishery, WGCST(16)16. It was agreed that self-assessments should be conducted by each Party/jurisdiction of the WGC (excluding Finland and Sweden).
- 4.3.3 Prior to the Commission's 2017 Inter-Sessional meeting, self-assessments had been submitted by Canada, European Union (Denmark, France, Germany, Ireland, Spain and UK) and the United States. These self-assessments, which are available in documents WGCIS(17)3, WGCIS(17)4, WGCIS(17)5, and WGCIS(17)8, were issued to Members of the Commission and the NGOs. Questions on the self-assessments were provided to the Secretariat and issued to the Parties / jurisdictions as documents WGCIS(17)6rev and WGC(17)10. The responses to these questions by Parties / jurisdictions, are contained in document WGCIS(17)11rev.
- 4.3.4 The Chair asked Parties if they had any updates to report in relation to application of the six tenets, or any other relevant recent developments.
- 4.3.5 The representative of Canada advised that progress had been made with coordination of enforcement activities. Enforcement is a shared responsibility between the Provinces and Federal Government, and an internal review had been initiated to examine and establish best practice with respect to Atlantic salmon enforcement in Fisheries and Oceans Canada's Atlantic regional enforcement offices. A subsequent workshop to involve stakeholders and first nations had been proposed for fall 2018 in order to develop a collaborative, shared approach to monitoring and enforcement activities. The NGO representative asked if there had been any further progress on activities related to the six tenets in Canada. He noted that the initial assessment had provided a Canada-wide view and had thus failed to recognise differences in levels of compliance between Provinces. The NGOs had hoped that this might have been addressed. The NGO representative noted also that there were many changes to the management of the fisheries in Canada in 2017 due to low stock abundance, and that this might also merit

reporting. The representative of Canada advised that responses to questions of clarification on the six tenets assessment had been provided last year and that a reappraisal had not been considered at this point. However, he was happy to provide further details at the Annual Meeting. The Chair reminded the Parties that the Working Group on Future Reporting had been asked to look at the possibility of incorporating the six tenets into future Implementation Plan reporting, so these issues will be subject to further discussion at Council during the 2018 Annual Meeting.

- 4.3.6 A delegate of the European Union reported on developments related to the six tenets for England and Wales WGCIS(18)08 (included as Annex 9). This included proposals for a range of new controls on exploitation of salmon in response to declining stock status, involving the closure of many net fisheries and requirements to achieve very high levels of catch-and-release in rod fisheries (including mandatory catch-and-release on rivers with the lowest stock status in England and for all rivers in Wales). These proposals have been, and in some cases, continue to be, subject to extensive public consultation and new measures will be implemented through appropriate legislative provisions. The aim is to introduce the majority of the measures in 2018, with other restrictions following in 2019. Catch limits and emergency byelaws restricting fishing have been implemented in some other fisheries. Improvements had also been implemented in catch reporting arrangements for rod fisheries, and in the upgrading of fish counting facilities. The NGO representative welcomed these positive developments.
- 4.3.7 Another delegate of the European Union reported on improvements against the six tenets in respect of Ireland. In relation to tenet 4 for recreational fisheries, the Board of IFI (Inland Fisheries Ireland) has formed a sub-committee to explore further the conservation of Irish salmon stocks and to support public engagement on the issue. This group has commissioned various layman's guides and technical documents to enhance understanding of salmon conservation among the public and concerned stakeholders. Included in these documents will be simplified explanations of conservation limits, determining their attainment and identifying how the TAC (Total Allowable Catch) is set. To support further an increased understanding of the status of salmon stocks in each catchment in Ireland, IFI has collated by catchment, into a single database, all available data and statistics pertaining to salmon stocks. This information will be made available via a web-based map viewer and will support localised catchment engagement on salmon management. In relation to tenet 5 for both net and rod fisheries, the representative of the European Union noted that in early 2017, it was identified, following legal advice, that Inland Fisheries Ireland (IFI) did not have explicit powers to prosecute offences under the Fisheries Acts. It became apparent that the powers of the predecessors to IFI (the Central and Regional Fisheries Boards) to prosecute fisheries offences were not transferred into the 2010 Fisheries Act that established IFI. This issue has now been rectified with the introduction of the Inland Fisheries (Amendment) Act 2017 (No. 16 of 2017). This Act came into operation on 11 July 2017 and provided Inland Fisheries Ireland with the power to bring summary proceedings for certain offences; to provide for certain penalties; and to provide for related matters.
- 4.3.8 The representative of the United States reported on progress with the 'Species in the spotlight' initiative WGCIS(18)09 (included as Annex 10). These efforts include the focus on dam removals in conjunction with stakeholder groups and hydro-electric

power companies, among other efforts to promote the conservation and recovery of Atlantic salmon, such as fish passage improvements and habitat protection work, utilising both public and private funds.

4.4 Other Elements of the Regulatory Measure (*sub-paragraphs 4 and 8 of WGC(15)21*)

4.4.1 Sub-paragraph 4 of the multi-annual regulatory measure states that 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. In 2016, the representative of ICES indicated that the analyses undertaken did not provide clear evidence of temporal and/or spatial management options for the fishery at West Greenland that would provide increased protection for weaker stocks and the best available information suggested that the contributing North American and European stocks mix along the coast of West Greenland and across the fishing season. The contributions to the harvest by the regional stock groupings closely mirrors the modelled estimates of MSW stock abundance, further supporting the suggestion that the stocks are well mixed within the fished complex. Although some weak relationships were identified (e.g. a higher contribution of North American river-age 1 fish in week 31, a greater number of European river-age 1 fish in the north), these relationships were preliminary and further analysis of these data, increased genetic sampling of the fishery, and further refinement in the genetic baselines used for regional assignments may be needed to investigate these patterns further. In 2017, the representative of ICES indicated that no further spatial or temporal analyses of the salmon stocks at West Greenland had been conducted to ascertain whether these factors may protect vulnerable stocks present there. He had noted that in 2016, ICES conducted an assessment of the consequences for harvest levels and exploitation rates of delaying the opening of the season in Greenland to 15 September. This assessment indicated that there would be a reduction in the exploitation rate of all contributing stocks, including vulnerable stocks, with a reduction in the number of fish harvested per tonne.

4.4.2 The Chair advised that no further advice had been sought from ICES on this issue in 2018. The representative of the United States stressed that it was important to continue to explore stock discrimination, especially that arising from the genetic analysis, to see whether differences in the distribution of fish in space and time might be used to inform management and minimise the impact on weaker stocks. The representative of the European Union concurred. Responding to questions from the NGO representative and the Chair, the representative of DFG confirmed that possible changes to the current fishing season were under consideration, in particular shortening of the season, but that this was one of the issues that required further analysis, based on findings from the last three seasons.

4.4.3 Sub-paragraph 8 of the multi-annual regulatory measure states that States of origin will explore opportunities to share experiences with DFG on monitoring, management control and surveillance in the salmon fishery, including on carcass tagging, through knowledge-sharing exchange programmes. A delegate of the European Union presented an account of monitoring and assessment procedures in Ireland, including the reliance on catch data derived from carcass tagging WGCIS(18)10 (included as Annex 11). 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. Rivers in Ireland are managed individually, and different carcass tags are allocated dependent on the status of the stocks; blue tags are issued to recreational anglers to enable exploitation on available surplus, where a substantive exploitable surplus is identified, but brown tags are also issued for use on specific catchments when the exploitable surplus is small. Some rivers are closed to fishing entirely. Local stakeholders are involved in the allocation of tags. In response to questions, the representative from the European Union advised that circa 20 thousand carcass tags are used in line with the reported catch, and that while enforcement remained a priority, the reduction in enforcement officers meant that increasing reliance was placed on intelligence-based activities. All fishermen are required to return any unused tags. The representative from the NGOs commended Ireland for what appeared to be a very productive use of tags to underpin management, and a system that might perhaps be adopted by other jurisdictions. It was also noted by the representative of the European Union that there was continued pressure in Ireland to re-open mixed stock fisheries, particularly in rural and island communities.

5. Consideration of a new Multi-Annual Regulatory Measure to apply to the salmon fishery at West Greenland from 2018

- 5.1 The Chair noted that the foregoing discussions had provided a very useful exchange of views and provided what he hoped would be a good basis for establishing a framework for a potential new regulatory measure. He recognised that more analysis on the 2017 fishery was needed by DFG and that responses to the various questions posed previously might provide further clarity during the course of the meeting. He stressed that he would like to see a reasonable framework developed over the course of this meeting to facilitate decision making at the Annual Meeting.
- 5.2 The Chair reminded the Commission that pursuant to Article 9 of the Convention, when setting a new regulatory measure, a Commission shall take into account:
- (a) the best available information, including advice from the International Council for the Exploration of the Sea and other appropriate scientific organizations;
 - (b) measures taken and other factors, both inside and outside the Commission area, that affect the salmon stocks concerned;
 - (c) the efforts of States of origin to implement and enforce measures for the conservation, restoration, enhancement and rational management of salmon stocks in their rivers and areas of fisheries jurisdiction, including measures referred to in Article 15, paragraph 5(b);
 - (d) the extent to which the salmon stocks concerned feed in the areas of fisheries jurisdiction of the respective Parties;
 - (e) the relative effects of harvesting salmon at different stages of their migration routes;
 - (f) the contribution of Parties other than States of origin to the conservation of salmon stocks which migrate into their areas of fisheries jurisdiction by limiting their catches of such stocks or by other measure; and
 - (g) the interests of communities which are particularly dependent on salmon fisheries.
- 5.3 The Chair asked Parties to suggest the best way forward in developing a framework for a new regulatory measure. The representative from Canada suggested that there was no need to start from scratch; many of the existing paragraphs seemed to be relevant and

appropriate and could likely be retained. The priority would be to identify those issues that may need further exploration prior to the Annual Meeting and agree on these. The representatives from the United States and European Union endorsed this view and the need to work on improving those issues that haven't worked as well. The representative from DFG indicated that he had had a number of informal meetings and constructive dialogue with Parties and looked forward to working with them to develop a new measure.

- 5.4 The Chair proposed that the nine operative paragraphs listed in the Multi-Annual Regulatory Measure for Fishing for Salmon at West Greenland for 2015, 2016 and 2017 WGC(15)21 (Annex 5) should be reviewed sequentially; based on discussions he could develop a working document of possible elements to include in a new regulatory measure for review by the WGC later in the meeting.
- 5.5 Paragraph 1 – *‘There will be no export of wild Atlantic salmon or its products from Greenland’*. The representative of Canada proposed that this measure should be retained and the representative of DFG noted that this had been in place for a number of years and that he was happy for this to continue.
- 5.6 Paragraph 2 – *‘The fishery will open no earlier than 1 August and close no later than 31 October each year.’* The Chair noted that this conferred some flexibility in the season dates and that this was an important consideration for Greenland in managing the fishery. The representative of the United States said that retaining a timing restriction was important. She noted that DFG had suggested that it was already considering some changes in the season and indicated any reduction in season length could be helpful but had no specific comments regarding the dates that should be applied. The representative of DFG confirmed that the season had run from 15 August to a maximum of 31 October in the last three years, and that they were considering a season reduction, in large part to reduce costs associated with monitoring and control of the fishery. He was thus happy to consider revision of the current wording within a new measure. The representative from Canada indicated that such changes may require wider consultation back in Greenland and suggested that the representative of DFG consider suitable alternative wording. The representative of the European Union agreed but noted that continuous fishing effort might increase the level of exploitation on particular stock groupings if there were differences in the timing of their availability in the fishery. He suggested that short closure periods within the open fishing season, such as closure periods of one or two days every week, might be considered in addition to the seasonal closure. The NGO representative also noted the earlier ICES advice that had suggested delaying the season could result in a reduction in the exploitation rate on stocks, while allowing the same quota to be taken (in tonnes) given that salmon are growing rapidly at this time. It was agreed that the representative of DFG would provide suggestions for revised wording in time for the Annual Meeting, noting the various issues raised.
- 5.7 Paragraph 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 representative of DFG indicated that there would be no problem in retaining this. The representative of the United States hoped that it would be possible to agree on a catch limit and thus the initial part of the

text could be removed. She further noted that the United States sees a clear link between implementation of effective monitoring and control measures for all segments of Greenland fishery and the question of a catch limit.

- 5.8 Paragraph 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.’* The representative of the United States considered that this was an important element of the measure; it would be important to keep investigations going to facilitate future management. She wondered whether this might be combined with paragraph two. The representative of the European Union endorsed this. The representative of DFG noted that it would need further advice on how any such measures might be implemented, adding that this would entail additional effort on monitoring and control. The Chair noted that there were still challenges related to the science, as well as potential management, but agreed that it would be an important area of work to maintain. It was agreed that the paragraph should be retained, but that the wording could be modified to improve clarity.
- 5.9 Paragraph 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.’* The representative of Canada felt this was a very important part of the document and that it was vital to strive to continue to improve catch accountability. The representative of the United States agreed and noted that further efforts were needed to reduce uncertainty in the reported landings. The representative of DFG reported that Greenland would continue its efforts through the work of the wildlife officials and in publicising reporting requirements throughout the whole fishing season. The representative of DFG also remarked on the telephone questionnaire noting that he will need to talk with his biologists conducting the survey and evaluate whether it is appropriate to continue conducting a survey that requires such significant manpower every year. The representative of the United States noted that document WGC(15)20 (Annex 8) was embedded in this paragraph; it was agreed that the meeting also needed to review this paper.
- 5.10 Paragraph 6 – *‘All Members of the Commission will implement the six tenets in accordance with WGC(15)23.’* The Secretary reported that the NASCO Working Group on Future Reporting had been tasked to consider the six tenets as part of their recent review of future reporting requirements under the next round of Implementation Plans. The Review Group had developed a new template for reporting which incorporates the six tenets, and this would then apply to all Parties not just members of this Commission. This would, however, need approval by Council at the next Annual Meeting. The Chair concluded that this paragraph could likely be removed, subject to developments in Council, but would be left open pending any such decision.
- 5.11 Paragraph 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.’ The representative of the European Union suggested that the current reporting arrangements could be further developed to make these more comprehensive, for example to include progress on issues such as any developments in relation to carcass tagging. He felt this would help Parties understand how they could perhaps support DFG better. The representative of DFG noted that it already reports to Parties every year about proposals for the fishery and submits detailed reports from its scientists to ICES in relation to the fishery and the outcome of the phone surveys. He therefore had difficulty in seeing what else might be required from them. The representative of the European Union acknowledged the reporting efforts by DFG but recognised that it would be beneficial also to report regularly on any considerations by DFG on significant management measures, such as certain paragraphs in WGC(15)20 (Annex 8), like carcass tagging. The representative of the United States clarified that, ideally, the annual report would include feedback on the status of all measures that have been agreed. She noted that it was helpful to have relevant information available in a single document rather than multiple sources. The representative of DFG indicated that he would consider this further.

- 5.12 Paragraph 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.’* The representative of Canada indicated that they were very happy to share experiences and support DFG if this was helpful. The Chair questioned whether it was necessary to make specific mention of carcass tagging, and it was agreed that the wording could be revised to make this more generic, specifically by removing the words ‘including on carcass tagging’.
- 5.13 Paragraph 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.’* The representative of the United States felt it was too early to specify the duration of any measure at this time pending clarification on different issues and that the issue should remain open. The representative of Canada concurred, but was in favour of a further three-year agreement if possible. The representative of DFG hoped that another long-term agreement could be reached.
- 5.14 The Chair, to further facilitate his work in developing a working document, indicated that he would also appreciate the views of Parties on the various operative paragraphs set out in the Updated Plan for Implementation of Monitoring and Control Measures in the Salmon Fishery at West Greenland WGC(15)20 (Annex 8), since reference to this was embedded within the multi-annual regulatory measure.
- 5.15 *‘The Members of the West Greenland Commission agree as follows: In accordance with the recommendations of the Ad hoc Working Group on Monitoring and Control, the Ministry of Fisheries, Hunting and Agriculture, in cooperation with the Greenland Fisheries License Control Authority (GFLK) and the Greenland Institute of Natural Resources (GN), implemented a telephone questionnaire survey of fishing activity of fishermen who held licences in 2014. The survey will be repeated after the 2015 fishery.’* The Chair asked Parties for views on the current phone survey at Greenland, noting that the representative of DFG had indicated a need for Greenland to undertake a full evaluation of this requirement as a basis for future decisions. This would need to take account of the large effort involved in undertaking the survey, with many people

having to make calls to people during evening periods, as well as the resultant information. The representative of the United States stressed that it was important that there is some process of validation. She was, however, open to ideas other than the phone survey. The representative of Canada agreed that catches needed validation but considered that whatever process was adopted should work for DFG. The representative of the European Union also highlighted the importance of catch validation and felt that answers to some of the questions under consideration by DFG might provide greater clarity. The representative of DFG asked whether any other jurisdictions used phone surveys and Canada and the United States confirmed that they do in some fisheries. The representative of Canada reiterated that they would be happy to share experiences with DFG if this would be of help.

- 5.16 Paragraph 1 – *‘All individuals fishing for salmon will require a license; only licensed professional fishermen will be authorised to supply salmon to the communities.’* The representative of the United States considered it was important to have more certainty on catches but was open to exploring alternative approaches for achieving this beyond licensing everyone. The representative of the European Union endorsed this. The representative of DFG noted that Greenland was still considering this; he added that there were major manpower implications associated with licensing all fishers. They are considering only allowing professional fishermen to harvest salmon.
- 5.17 Sub-Paragraph 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-authorized factories is not permitted.’* The Chair noted that no factory landings had occurred in 2016 or 2017. The representative of Canada expressed a preference for preventing future access to factories, noting the benefits apparent in the last two years. The representative of DFG acknowledged the late reporting by factories in 2015 and the resulting catch above quota. In response to a question from the Chair, he further acknowledged that there is a common understanding in Greenland that factory landings will not be permitted in future. The Chair asked if it would be acceptable to change the text to ‘Landing of salmon at fish factories shall be prohibited’ and that was acceptable to all Parties.
- 5.18 Paragraph 3 – *‘Fish factories will report landings by weight and also where possible by number no less frequently than on a weekly basis.’* In light of the above, the Chair noted that that this paragraph would therefore be removed.
- 5.19 Paragraph 4 – *‘Catches will be monitored regularly to allow in-season monitoring of the catch limit.’* The Chair noted that he understood that this was currently done by Greenland. The representative of DFG confirmed this and indicated that he was content for this paragraph to remain.
- 5.20 Paragraph 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.’* The representative of DFG confirmed that a mandatory in-season reporting system is in place, to monitor how much of the quota had been taken and that they would continue to do this annually. There was little appetite, given the small size of the administration, to increase this beyond annual reporting. The representative of the United States asked, given the discussion over paragraph 1, whether the word ‘licensed’ should be removed, or included in parentheses, since not all fishers are

currently licensed. The representative of DFG indicated that he would need to take this back for consideration.

- 5.21 Paragraph 6 – *‘Failure to report catches as specified in (5) will result in no licence being issued for the following year(s) even in the case of zero catch.’* The Chair noted that this paragraph had not been implemented. The representative of DFG reported that this issue had been subject to considerable scrutiny back in Greenland, with questions raised about civil liberties, a legal hearing and pressure from human rights activists; similar concerns had been raised in relation to possible penalties for hunting infringements. They had therefore moved away from adopting this. In response to comments from the Chair, he indicated that he would prefer this paragraph to be removed. The representative of the United States felt that some form of penalty should be available to Greenland to apply for a failure to report and wondered whether there were other examples that DFG could adopt, or whether other jurisdictions could help with ideas. The representative of Canada agreed and suggested that Greenland take this away and consider what might be practical. The representative of DFG noted that they have powers to impose fines already, but that legal action was problematic given the need for evidential requirements and the fact that the police were unlikely to engage. The representative of the European Union suggested that incentives for reporting, rather than penalties for non-reporting, might be considered. He also noted the merits of a carcass tagging approach, whereby the supply of further tags could be conditional upon reporting on those supplied previously. The representative of DFG indicated that reaching out to engage fishers who have not reported in a dialogue would likely be a more effective option to encourage reporting. The Chair noted that the use of reminders could work well, but that this could only apply for fishers with licences. The representative of the United States concurred with the view that engagement with non-respondents was an appropriate first step, but that it was important to have a range of options, so that further penalties could be applied if necessary. The Chair proposed that this paragraph be reworded following further consideration by Greenland to provide them with some greater flexibility as to how penalties are applied.
- 5.22 Paragraph 7 – *‘It will be a condition of the licence that fishermen shall allow samplers from the NASCO sampling programme to take samples of their catches upon request.’* The representative of DFG indicated he was content with the continuation of the sampling programme. The representative of the United States noted that it was important that the programme continued to underpin management, and hopefully enable management refinements over time as new information came to light. The representatives of Canada and the European Union endorsed this.
- 5.23 Paragraph 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.’* The Chair noted that the NASCO brochure had been completed and widely circulated (it had been provided to all licensees) but was less clear about the extent of other feedback. He stressed the importance of fishers being able to see the results of scientific investigations related to their fishery. A delegate of the United States reported that there had been some efforts to communicate results to fishers via KNAPK, but with limited success. He suggested that there were probably additional mechanisms for such outreach, for example he was planning some public talks during future visits to Greenland but suggested that further support from

Greenland would be beneficial to facilitate this. The representative of Canada also suggested the possibility of having web links to relevant reports or information. However, the NGO representative noted that appropriate language versions would be needed, with translations into both Danish and Greenlandic. The Chair concluded that the wording at the end of this paragraph needed to be revised to incorporate greater flexibility on how information would be reported

- 5.24 The Chair sought clarification from Parties as to whether the current preamble sections to documents WGC(15)20 (Annex 8) and WGC(15)21 (Annex 5) should be reviewed now or at the Annual Meeting. The representative of the United States suggested this task be undertaken at the Annual Meeting; the representative of Canada concurred. The Chair suggested that there was no particular need to further consider the three items listed at the end of WGC(15)20 (Annex 8), since these had already been discussed in detail during the course of the meeting. Parties concurred.
- 5.25 Taking into account the discussions held during the inter-sessional meeting, the Chair developed, with assistance, and circulated a working document that included a list of elements that could be considered, *inter alia*, for inclusion in a potential new regulatory measure. The representative of the United States welcomed this document, noting that this would need to remain fully ‘open’ and subject to revision, while acknowledging that it would be helpful to have as much clarity as possible moving forward. The Chair indicated that the document included introductory text explaining its origin and highlighting its provisional nature. In that regard, he reiterated that none of the considerations in the working document have been finalised and that it should be further considered by the Parties in advance of the 2018 Annual Meeting to support development of a new regulatory measure at that meeting. Some initial edits to the draft document proposed by the Parties were incorporated. A revised draft document was then circulated to WGC members as a basis for subsequent discussion. In response to a question from the representative of the European Union in relation to the need for further advice on the stock structure of the fish caught at West Greenland, a delegate of the United States advised that further information would be made available to the ICES Working Group in April and would be reported to NASCO. He noted that this would be unlikely to provide a basis for advising on possible temporal or spatial management measures for the fishery. The representative of ICES noted that it would be helpful for ICES to have adequate preparatory time for new questions and suggested that NASCO could consider further requests for ICES advice during its usual discussions at the Annual Meeting. The agreed document WGCIS(18)11 is included as Annex 12.

6. Arrangements for a Further Inter-Sessional Meeting (If Required)

- 6.1 The Commission discussed the need for holding a further, one-day inter-sessional Meeting prior to the 2018 Annual Meeting of the Commission. If required, the meeting would be held on Sunday, 10 June 2018 at the Holiday Inn by the Bay, Portland, Maine, USA. The representative of the United States suggested that this might be helpful, as timing at the Commission meeting was tight in 2015, the last time a multi-annual measure was negotiated. She stressed, however, that it would be necessary to have additional information from Greenland in response to questions and requests for additional analysis raised during this meeting by 4 May, to allow full consideration prior to the next Commission meeting. The representatives of Canada and the European Union agreed. The representative of DFG suggested that a conference call might be

sufficient to address outstanding issues. The representative of Canada suggested that this would be fine, but that it would be prudent to plan for the inter-sessional meeting as a back-up. The NGO representative suggested that the conference call should be scheduled to take place after the release of the ICES advice. The representative of ICES confirmed that the advice was due for release on 4 May.

7. Other Business

- 7.1 There was no other business.

8. Report of the Meeting

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

9. Close of the Meeting

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

Welcoming statement from the Chair of the West Greenland Commission

Welcome to Copenhagen for this West Greenland Commission Inter-Sessional meeting.

I understand from Emma that the Government of Greenland staff were extremely helpful and supportive in securing the venue for this meeting and we are extremely grateful for this.

I would like to thank Emma and the staff at the NASCO Secretariat for the arrangements for this meeting and I am looking forward to having fruitful discussions and exchanges over the next few days.

We have scheduled three days for the agenda and I am sure this will be ample time.

Before I go any further I see there are several new faces and old / new faces around the table and room, so I want to take a little bit of time to introduce ourselves.

Atlantic Salmon stocks continue to be at low levels across North America and the North East Atlantic. It continues to be challenging for all of us to understand reasons for the low numbers in many of our regions and declining stocks in many other regions.

Having said that we must all work in collaboration to do what we can to ensure that this important species can survive and thrive for future generations. Participation in this Commission and in NASCO allows for this collaboration. I look forward to fruitful and collaborative working over the next few days.

The 2017 ICES advice said that ‘the abundance of salmon within the West Greenland area is thought to be low compared to historical levels. This is broadly consistent with the general pattern of decline in marine survival in most monitored stocks. Despite major changes in fisheries management in the past few decades and increasingly more restrictive fisheries measures since, returns in many of these regions have remained near historical lows. The continued low abundance of salmon stocks across North America and in the Northeast Atlantic, despite significant fishery reductions, further strengthens the conclusions that factors other than fisheries are constraining production.’

Climate Change and changes in the marine environment are real and for the most part I don't think this is good news for many species, including the Atlantic Salmon.

In Eastern North America, signals of rebuilding of the groundfish community appeared in the mid to late 2000s and coincided with the beginning of the shellfish decline in abundance.

The finfish biomass in the 2010s had been relatively stable until 2014-2015, when we started to see signals of decline. Overall declines in total biomass are in the 30-35% range from the 2010-2013 level.

Conditions that led to the start of the rebuilding of the groundfish community have eroded. They may be linked to the simultaneous reductions in capelin and shrimp availability as well as other changes in ecosystem conditions such as declines in zooplankton conditions in recent years.

As scientists and managers we have very little control over what is happening in the environment, but we need to do what we can to better understand what is happening out there and hopefully help us predict better how these changes will impact Atlantic salmon stocks.

Some things we do have control over. We can control how we manage and monitor our fisheries. We also have some control over how river habitat is used and managed.

A portion of the Greenland population depend on many fish species found in their waters, including Atlantic Salmon to feed their families. This is not unlike the indigenous food fishery in Labrador. The cost of living in small remote communities is high and country food is a large part of the diet. As we advance the NASCO discussions we always need to remember the subsistence aspect of the Atlantic salmon fishery in many areas.

In 2015, the West Greenland Commission adopted a Multi Annual Regulatory Measure for Fishing for Salmon at West Greenland for 2015, 2016, and 2017. I wish to acknowledge Greenland for the substantial progress made in implementing this measure. I would like to bring to your attention that item 5 of the draft agenda says that we are to consider a new multi-annual regulatory measure for the salmon fishery at West Greenland from 2018. I would like to clarify that we will not be considering a new regulatory measure at this meeting, but I hope we can make progress on drafting conditions that could be considered in a possible new regulatory measure this week that makes sense for all members of this Commission and NASCO.

I would hope that we will make substantial progress for setting us up to adopt a measure at our annual meeting in June.

Carl McLean,
27 February 2018

Opening Statement by Canada to the Intersessional Meeting of the West Greenland Commission

Mr. Chairman, Madame Secretary, Fellow Delegates, Ladies and Gentlemen:

This week's intersessional meeting of the West Greenland Commission will be an important opportunity to review progress in implementing the current regulatory measure and begin discussions on a new, replacement measure. The Canadian delegation is looking forward to contributing to the week's discussions in a fruitful way. As this is my first NASCO meeting, I am also certainly looking forward to working with you all.

Atlantic salmon has been, and continue to be, a very significant cultural, economic and environmental symbol for eastern Canada and a vital species for Aboriginal food, social and ceremonial fisheries.

Given the continued declining trend in Canada and elsewhere, it is important to recognize that the conservation and rebuilding of wild Atlantic salmon stocks is a shared responsibility. It is also a continuous and long-term process that requires the concerted efforts of all those involved. That is indeed, why we are all here today.

We thank Greenland for providing information to the Commission that will facilitate its work this week. We were pleased to see that reported catch from West Greenland was significantly below the unilaterally established quota of 45t in 2017, and look forward to learning more about the mixed stock fishery last year. Canada values the significant work Greenland is investing in to improve the monitoring and control of the fishery, noting in particular the elimination of factory landings, a measure that Canada believes is fundamental. We also hope to make progress in moving towards a quota that can be agreed to by all members of the Commission.

In conclusion, I look forward to working closely with all of you and to a productive meeting this week.

Thank you.

Opening Statement by the European Union to the Intersessional Meeting of the West Greenland Commission

Mister Chairman, Ms Secretary, Distinguished Delegates, Observers, Ladies and Gentlemen:

It is a pleasure for the EU to be here in Copenhagen for this Intersessional Meeting of the NASCO West Greenland Commission and we are grateful to the Secretariat and the Danish delegation for organising the meeting in this beautiful city.

This intersessional meeting is a good opportunity to improve our understanding of the status of the Multi Sea Winter salmon stocks, of the latest state of play of the fishery at West Greenland as well as of the conservation and management measures in place throughout the Convention Area.

Similarly to other Members of this Commission, the European Union has a strong interest in ensuring the sustainable management of the fishery at West Greenland. This mixed stock fishery exploits important components of often vulnerable European populations of Atlantic salmon. Like for any other fishery, rational management requires good monitoring of the fishery with accurate catch and effort statistics. We believe that the Commission should carefully assess how this can be best achieved.

We would like to reiterate the importance we attach to this Intersessional Meeting to inform our discussions at the forthcoming Annual Meeting.

To conclude, Mr. Chairman, the European Union is looking forward to working constructively with all Parties towards the effective regulation of this fishery and improving the tools we have at hand to ensure the long-term conservation and sustainability of Atlantic salmon stocks, in line with the NASCO's objectives.

Opening Statement by the US to the Intersessional Meeting of the West Greenland Commission

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

The United States greatly appreciates the opportunity to work with our partners during this very important intersessional meeting of the West Greenland Commission. The work we do this week will benefit us when the Commission meets again during the NASCO annual meeting in Portland, Maine.

We would like to recognize the wonderful preparations done for this meeting by our new Secretary and her staff as well as the Greenlandic representation, which will, no doubt, facilitate our work over the next few days. In addition to the work by the Secretariat, we wish to thank Greenland for providing information on the outcome of its 2017 fishery, including the status of implementation of requirements to improve monitoring and control of this mixed-stock interceptory fishery.

As we begin our work today, the United States sincerely hopes we will be able to find common ground upon which to build a new regulatory measure for the West Greenland fishery. We firmly believe that multilateral cooperation is essential to this process, especially given the dire status of the US stocks and the resources that we have committed domestically to restore them. In the usual spirit of cooperation within this Commission, we look forward to fruitful collaboration with all our partners on these important and complex issues – both here and during the NASCO annual meeting in June.

List of Participants

Canada

Mr Tony Blanchard
Mr Serge Doucet
Ms Kate Johnson
Mr Carl McLean

Denmark (in respect of the Faroe Islands and Greenland)

Mr Emanuel Rosing

European Union

Ms Delyth Dyne
Dr Cathal Gallagher
Mr Grant Horsburgh
Dr Arnaud Peyronnet
Dr Ian Russell

USA

Ms Kim Blankenbeker
Ms Kim Damon-Randall
Ms Alexis Ortiz
Mr Tim Sheehan
Ms Rebecca Wintering

IGO

Dr David Miller
Dr Lotte Worsøe Clausen

NGO

Mr Dave Meerburg

Secretariat

Dr Emma Hatfield
Ms Sarah Robinson

WGCIS(18)05

Inter-Sessional Meeting of the West Greenland Commission

Nordatlantens Brygge, Strandgade 91, Copenhagen, Denmark

27 February to 1 March 2018

Agenda

1. Opening of the Meeting
2. Adoption of the Agenda
3. Nomination of a Rapporteur
4. Review of the Multi-Annual Regulatory Measure for Fishing for Salmon at West Greenland for 2015, 2016 and 2017, WGC(15)21, taking into consideration the Six Tenets for Effective Management of an Atlantic Salmon Fishery
 - 4.1 Report on the West Greenland Salmon Fishery in 2017 (*sub-paragraphs 1 and 2 of WGC(15)21*)
 - 4.2 Progress in Implementing the Updated Plan for Implementation of Monitoring and Control Measures in the Salmon Fishery at West Greenland (*sub-paragraph 5 of WGC(15)21*)
 - 4.3 Update on Improvements to Monitoring and Control Measures in the light of the Findings of the Six Tenets Self-assessments (*sub-paragraph 6 of WGC(15)21*)
 - 4.4 Other Elements of the Regulatory Measure (*sub-paragraphs 4 and 8 of WGC(15)21*)
5. Consideration of a new Multi-Annual Regulatory Measure to apply to the salmon fishery at West Greenland from 2018
6. Arrangements for a Further Inter-Sessional Meeting (If Required)
7. Other Business
8. Report of the Meeting
9. Close of the Meeting

Secretary
Copenhagen
27 February 2018

Note: *The meeting will commence at 10.00hrs on Tuesday 27 February and conclude on Thursday 01 March.*

WGC(15)21

Multi-Annual Regulatory Measure for Fishing for Salmon at West Greenland for 2015, 2016 and 2017

RECOGNISING that in exercising its functions the West Greenland Commission shall take into account the factors detailed in Article 9 of the Convention;

NOTING that at its 2006, 2009 and 2012 Annual Meetings, the West Greenland Commission adopted multi-annual regulatory measures that provided for a fishery that was 'restricted to that amount used for internal consumption in Greenland, which in the past has been estimated at 20t annually,' and applied for three year periods, subject to the result of application of the Framework of Indicators;

FURTHER NOTING that the reported catches in the West Greenland fishery since implementation of the restriction to internal consumption only may provide an indication of the subsistence needs of Greenland;

TAKING INTO ACCOUNT the comprehensive information presented to the inter-sessional meetings of the Commission in 2014 and 2015 concerning the critical status of many of the Multi-Sea-Winter salmon stocks contributing to the West Greenland fishery and the conservation initiatives taken by both Greenland and States of origin;

NOTING that some stocks harvested at West Greenland are endangered and at risk of extinction in some States of origin;

CONSIDERING that ICES has assessed the stocks from the seven regions contributing to the fishery at West Greenland to be below conservation limits and thus suffering reduced reproductive capacity and has advised that there are no catch options for the mixed-stock fishery at West Greenland that would satisfy the NASCO management objectives in 2015, 2016 or 2017;

FURTHER CONSIDERING that an updated Framework of Indicators has been provided by ICES and will be applied in 2016 and 2017 to evaluate if a significant change is signalled by the indicators and, therefore, a reassessment of the ICES advice is warranted;

RECOGNISING the work that Denmark (in respect of the Faroe Islands and Greenland) has done to obtain additional information on fishing effort in the salmon fishery and their commitment to further improve the monitoring, control and catch reporting for the fishery;

COMMITTING to continue to cooperate in the design and implementation of a sampling programme for the salmon fishery at West Greenland;

NOTING that at the 2015 Annual Meeting, Denmark (in respect of the Faroe Islands and Greenland) proposed a total catch limit of 45t to which not all members of the Commission could agree. Nevertheless, 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;

Thus, the Members of the Commission agree as follows:

- (1) There will be no export of wild Atlantic salmon or its products from Greenland;
- (2) The fishery will open no earlier than 1 August and close no later than 31 October each year;
- (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;
- (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;
- (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;
- (6) All Members of the Commission will implement the six tenets in accordance with WGC(15)23;
- (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;
- (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;
- (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.

WGCIS(18)04

Report on the Greenland Salmon Fishery in 2017

16-02-2018
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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

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,



Emanuel Rosing

WGCIS(18)07

Response to Questions asked of the representative of Denmark (in respect of the Faroe Islands and Greenland) in relation to their report on the West Greenland salmon Fishery in 2017

Agenda item 4.1 gave the opportunity for the representative of Denmark (in respect of the Faroe Islands and Greenland) (DFG) to present their report - WGCIS(18)04 - on the West Greenland salmon fishery in 2017.

Several questions were raised in response to his presentation, some of which related to the various numbers reported. It was agreed that those questions that could be answered quickly would be sent to the representative of DFG in written form to forward to Rasmus Nygaard, to enable a response during the inter-sessional meeting of the West Greenland Commission.

The following questions were sent, by email, to the representative of the DFG on Tuesday 27 February 2018:

1. In 2017, of the 630 catch reports received, how many licensed and unlicensed fishers reported zero salmon landed?
2. Can you provide a temporal representation of catch reports received in 2017 (i.e., number of reports by week) as well as how many reports were received outside of the one month post fishing season reporting deadline?
3. Can you provide a breakdown of the number of licensed and unlicensed fishers (not a summary of the number of reports received) who provided catch reports in 2015, 2016, and 2017?
4. What was the reported catch in East Greenland?

A response was received from the representative of DFG on Thursday 1 March 2018.

The figures provided in the meeting were later updated through correspondence. This was due to the representative of the NGOs noting that some of the figures relating to 2015 and 2016 in the response given at the meeting differed from the information previously provided to ICES.

The adjusted responses (figures adjusted in response to questions 3 and 4 only) are as follows:

- 1. In 2017, of the 630 catch reports received, how many licensed and unlicensed fishers reported zero salmon landed?*

Licensed fishermen

At least 92 of the people who reported catch were licensed fishermen. This is similar to previous years. Of these 3 reported 0 catch. From the previous phone interviews, we know that a lot of fishermen failed to report because they did not fish and therefore felt that they did not have anything to report. When we did the phone interview based on the 2016 season 1 unlicensed fisherman reported 0 catch. In this case I am uncertain whether people who set out a net are obligated to report if they failed to catch salmon.

2. *Can you provide a temporal representation of catch reports received in 2017 (i.e., number of reports by week) as well as how many reports were received outside of the one month post fishing season reporting deadline?*

We can't. The data entered keeps track of the fishing date, but not all reports were stamped with the date received. However, most of the reports were sent during the season or immediately after the fisherman had ended the fishery.

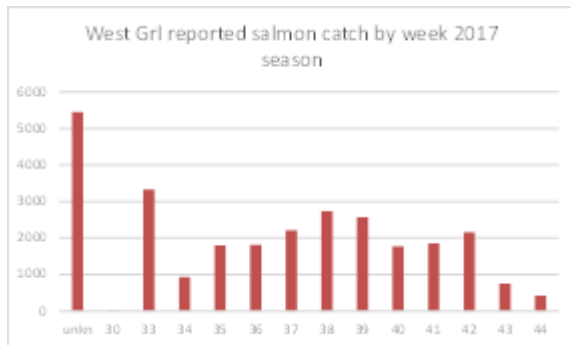


Figure 1. Reported catch by week in 2017.

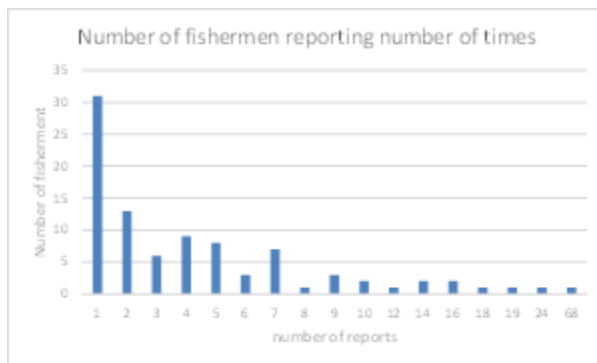


Figure 2. Number of times the fishermen reported. As you can see a significant number of fishermen reported only once or twice during the season when finishing their fishery. Some fishermen reported many times during the season.

3. *Can you provide a breakdown of the number of licensed and unlicensed fishers (not a summary of the number of reports received) who provided catch reports in 2015, 2016, and 2017?*

Year	Number of licensed fishermen reporting	unlicensed
2015	114 of 310	75
2016	71 of 263	69
2017	93 of 282	50

4. *What was the reported catch in East Greenland?*

288 kg

WGC(15)20

Updated Plan for Implementation of Monitoring and Control Measures in the Salmon Fishery at West Greenland

RECALLING the Report of the West Greenland Commission *Ad Hoc* Working Group on Monitoring and Control (WGC(15)3), including the working document setting forth six tenets for effective management of an Atlantic salmon fishery;

FURTHER RECALLING the outcomes from the 2015 Inter-sessional Meeting of the West Greenland Commission held in Nuuk, Greenland, which developed a *Plan for Implementation of Monitoring and Control Measures in the Salmon Fishery at West Greenland*;

NOTING that Denmark (in respect of the Faroe Islands and Greenland) has taken some steps to improve monitoring and control of their salmon fishery following the 2015 West Greenland Commission inter-sessional meeting;

RECOGNISING the commitment of Denmark (in respect of the Faroe Islands and Greenland) to further improve the monitoring and control of its salmon fishery at West Greenland;

The Members of the West Greenland Commission agree as follows:

In accordance with the recommendations of the *Ad hoc* Working Group on Monitoring and Control, the Ministry of Fisheries, Hunting and Agriculture, in cooperation with the Greenland Fisheries License Control Authority (GFLK) and the Greenland Institute of Natural Resources (GN), implemented a telephone questionnaire survey of fishing activity of fishermen who held licences in 2014. The survey will be repeated after the 2015 fishery.

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;
- (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;
- (3) Fish factories will report landings by weight and also where possible by number no less frequently than on a weekly basis;
- (4) Catches will be monitored regularly to allow in-season monitoring of the catch limit;
- (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;
- (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;
- (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

- (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.

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 non-professional fishermen, increased enforcement activity and reporting, etc.;
- (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
- (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.

WGCIS(18)08

Update on Improvements to Monitoring and Control Measures in the light of the Findings of the Six Tenets Self-assessments from the United Kingdom (England and Wales).

Update for UK

There are a number of developments to report in relation to changes implemented since the initial response to the Six Tenets in 2017, as follows:

Tenet 2: Effectively limiting catch and / or harvest - are measures in place to effectively limit catch and/or harvest e.g. harvest restrictions (including quotas), effort restrictions (including gear restrictions, ceiling on the number of licences, seasonal closures) or a combination of both?

- in response to declining stock status, proposals for extensive further controls on exploitation have been developed in both England and Wales in 2017. These include proposals for closure of many net fisheries (or for requirements to release salmon where a fishery is authorised to continue to operate for sea trout) and for requirements to achieve very high levels of catch-and-release in rod fisheries (including mandatory catch-and-release on rivers with the lowest stock status in England and for all rivers in Wales). These proposals have been and, in some cases, continue to be subject to public consultation and new measures will be implemented through appropriate legislative provisions. Final proposals (post -consultation) will be subject to approval by the regulatory bodies and government, but the aim is to introduce the majority of the measures in 2018, with other restrictions following in 2019;
- additional catch limits have been proposed to regulate catches in certain net and rod fisheries in NW England;
- an emergency Byelaw, restricting exploitation, was introduced on the River Camel in SW England to safeguard stocks in light of concerns about sustained low levels of juvenile abundance.

Tenet 3: Accurate, effective and timely reporting - is a mandatory system in place to ensure accurate, effective and timely reporting by all participants in the fishery? Are assessments conducted to confirm the accuracy of catch returns? Are these data used to effectively limit catch and/or harvest?

- in response to a recent decrease in levels of reporting by anglers (believed to be linked to a new on-line reporting system), additional reminders have been issued in 2017 (both as letters and emails) to improve reporting rates for the rod fishery. Further improvements have also been made to the on-line reporting site to clarify data entry procedures. Provisional indications suggest an improved level of catch reporting in 2017.

Tenet 4: Effective communication of management rules - are measures in place to effectively communicate with all participants in the fishery in a timely fashion? Does the

communication process explain clearly to participants in the fishery the policies underpinning the management rules e.g. licence obligations, sanctions, any in-season management adjustments and fishery closure information?

- fishery assessments are published annually, and proposed management measures are subject to consultation with stakeholder groups. There has been widespread dialogue and formal public consultation in relation to all the proposed new fishery restrictions in England and Wales.

Tenet 6: Scientific fishery sampling

- over the last 12 months, the Environment Agency in England have secured £450k of additional funding to upgrade and improve the resilience of the salmon counter network. Improvements have included upgrading data storage, cameras, computers and counter infrastructure. Data produced by the counter network is integrated into the annual assessment of stock status and used to inform management decisions.

There are no updates to report for the other two categories covered by the Six Tenets, i.e. Tenet 1: Known pool of participants and Tenet 5: Control and enforcement.

Homewater catches / stock status in 2017 for the United Kingdom (England and Wales) Update

Assessments of stock status have not yet been completed and rod catch data are still being collected and collated. Therefore, the following provides very preliminary observations only:

- provisional net catches of salmon in 2017 were over 50% below the catch in 2016 and among the lowest in the time series;
- rod catch data are not yet available, but provisional indications suggest the catch may be slightly higher than that in 2016 (but remaining among the lowest reported over the time series);
- there has been an increase in the proportion of older multi-sea-winter salmon returning to rivers in E&W in recent years (this is the age cohort of fish that are also taken at Greenland) and this appears to have been maintained in 2017. This has mainly been driven by a decrease in the abundance of returning one-sea-winter salmon. However, there has been an apparent small increase in the abundance of multi-sea-winter fish.

WGCIS(18)09

Recent efforts to conserve Atlantic salmon in the United States

Over many years, the United States, along with state and tribal authorities, has taken progressively more stringent actions to conserve Atlantic salmon populations:

- The last commercial fishery for Atlantic salmon in the United States was closed in 1947;
- Sustenance fishing by the Penobscot Indian Nation was suspended in 1988;
- The last recreational fishery for sea-run salmon ceased in 2008.

As it became evident that fishery management actions alone would not prevent further decline of the species, even more aggressive management measures and restoration activities began. Following are several examples:

- Atlantic salmon were recognized as endangered under the Federal Endangered Species Act (ESA) in 2000; the initial ESA-listing was revised to include a wider geographic area (over half the state of Maine) in 2009. The ESA-listing:
 - Prohibits activities which may result in the injury, mortality, harm, capture, collection, and harassment of the animals, including adverse modification or destruction of habitats that are considered critical to various life stages of salmon;
 - Requires that all federal activities (including issuance of permits or provision of funds) be analyzed for their potential effect on Atlantic salmon, and that the projects be adjusted to avoid or minimize adverse impacts to fish and their habitat, including:
 - Hydroelectric dam operations;
 - Road maintenance;
 - Dredging.
- In April of 2015, Atlantic salmon were designated as a ‘Species in the Spotlight’ by the National Marine Fisheries Service. This campaign seeks to elevate awareness of the plight of eight critically endangered species at a national level.
- The U.S. Government has also taken important and costly management actions to improve habitat, reduce threats, and work toward the recovery of wild salmon including:
 - Dam removals and fish passage improvements;
 - Modifications to hydroelectric dam operations (e.g., turbine shutdowns);
 - Aquaculture regulations:
 - Site-specific marks;
 - Vaccination of farmed fish prior to stocking in sea cages;

- Mandatory fallowing of stocking sites;
- Single year-class stocking;
- Vessel disinfection protocols;
- Prohibition on the use of non-North American strain salmon in marine cages;
- Required reporting of losses and potential losses and mandatory audits.
- Funding, coordination and oversight of habitat protection and enhancements in collaboration with local conservation groups (*see below*).
- In cooperation with the U.S. Government, the community of non-governmental organizations (NGOs) has taken important steps to support the conservation of Atlantic salmon in the United States, in particular, to improve and connect important habitats (*some examples below*):
 - Dam removals:
 - In 2017/18, funded numerous feasibility analyses (approx. \$1M) for several dam removals. Permitting processes are underway;
 - Penobscot River Restoration Project removed two mainstem dams (Great Works Dam in 2012 and Veazie Dam in 2013 from the Penobscot River (home to roughly 75% of returns to the United States); NOAA has invested over \$21M; total public/private costs for implementation of this project are approximately \$64M);
 - Edwards Dam (mainstem of Kennebec River; over \$1M in public sector funds) removed in 1999;
 - West Winterport Dam (Marsh Stream; over \$100,000 in public sector investment) removed in 2010;
 - Fort Halifax Dam (Sebasticook River) removed in 2008.
 - Installation of fishways:
 - Rock ramp at Fields Pond outlet (Penobscot tributary; over \$100,000 in public sector funds) installed in 2009.
 - Road-stream crossing improvements:
 - Over \$1.5M in fish passage improvements in the Machias River alone.
 - Habitat protection:
 - Machias River Corridor protects roughly 440,000 acres and nearly the entire mainstem of the Machias River (over \$7.8M in public and private sector funds to date).
- Furthermore, State Governments have:
 - Closed recreational fisheries for sea-run salmon, including catch and release fishing;

- Regulated other recreational fisheries to minimize the potential for incidental catch of Atlantic salmon;
- Implemented pollution control and monitoring measures;
- Implemented surveillance and enforcement activities to limit poaching.

Inland Fisheries Ireland

Salmon Management in Ireland

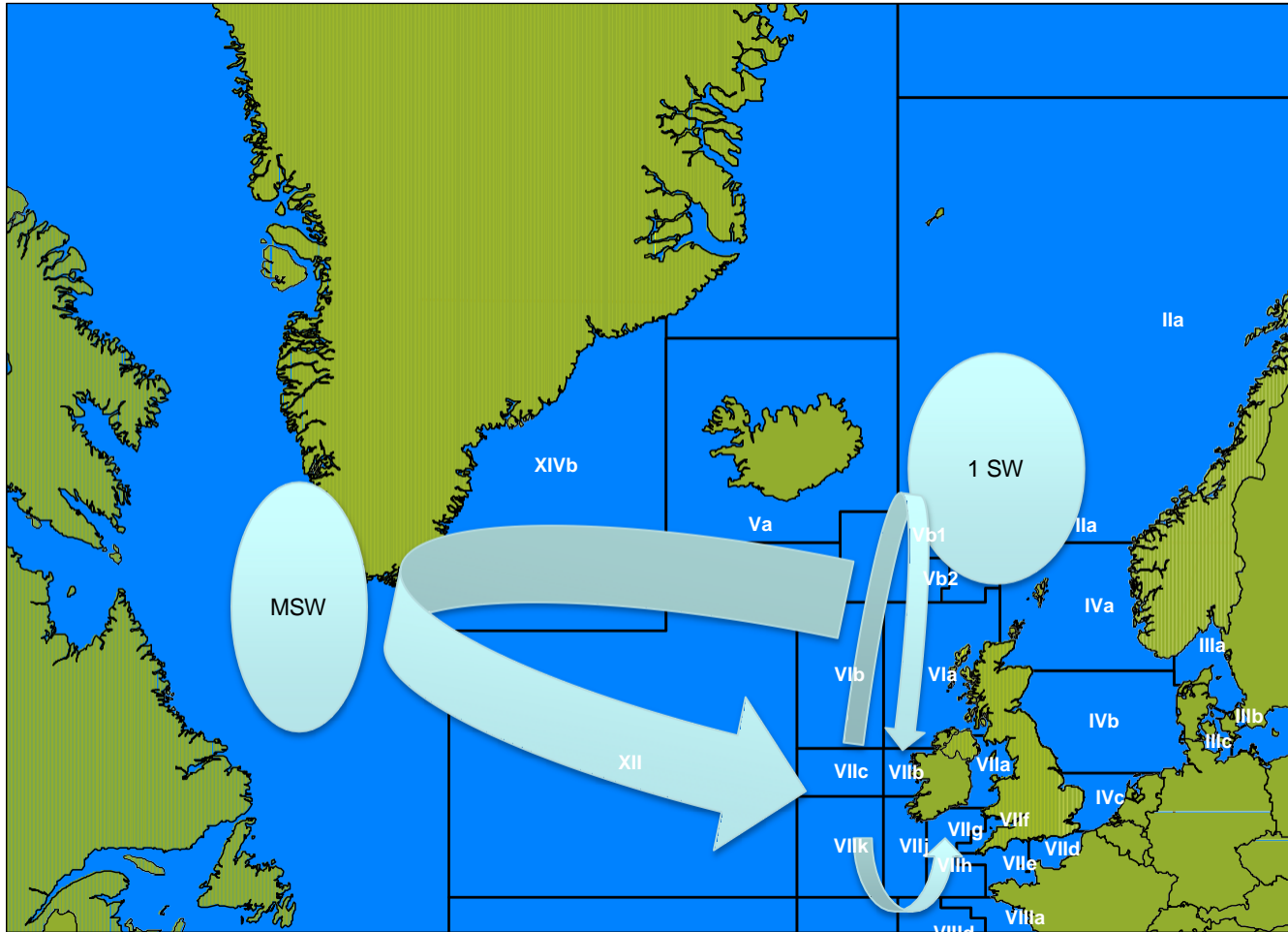
WGC Intersessional Meeting

27th February 2018

Dr. Cathal Gallagher

IFI, Head of Research and Development

Ireland's Salmon Stocks



Scientific Science Advice

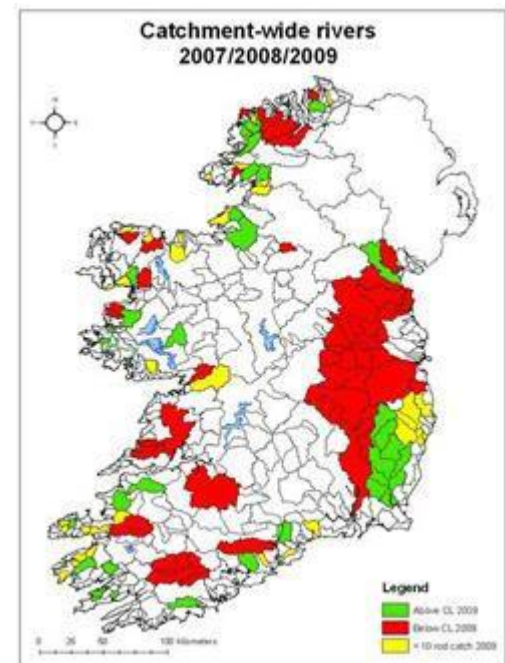
- Rod Catch
- Counter Data
- Juvenile Index

SSC

5 Year
Historic Data

Dundalk all ages									
River name	Common estuary	Flurry	Castletown	Fane	Glyde	Dee	Dee	Dee	Dee
Fisheries Board Code	DunA	DunB	DunC	DunD	DunE	DunF	DunG	DunH	DunI
OS River Number	91	92	94	95	96	97	98	99	00
Type of monitoring	Catch	Catch	Catch	Catch	Catch	Catch	Catch	Catch	Catch
Harvest / counts by year	02 to 06	02 to 06	02 to 06	02 to 06	02 to 06	02 to 06	02 to 06	02 to 06	02 to 06
2003	0	12	30	43	95	118			
2004	0	41	126	63	40	84			
2005	0	18	73	36	55	161			
2006	2	12	14	70	57	211			
2007	0	0	100	33	23	376			
C&R									
2003	C&R 2002	0	0	3	0	0			
2004	C&R 2003	0	0	2	7	0			
2005	C&R 2004	0	1	3	0	0			
2006	C&R 2005	0	1	11	1	0			
2007	C&R 2006	0	42	40	1	0			
Catches, corrected for released fish									
2003	0	12	33	43	92	40			
2004	0	41	128	70	40	86			
2005	0	19	76	36	55	87			
2006	2	13	25	71	57	23			
2007	0	42	140	34	23	53			
Exploitation rates in the rod fisheries (Crystal Ball assumptions)									
Triangular	Likely	0.05	0.15	0.15	0.15	0.26			
Distribution	Minimum	0.01	0.02	0.02	0.02	0.06			
	Maximum	0.12	0.35	0.35	0.35	0.44			
Crystal Ball ER drivers based on assumptions above									
2003	0.056	0.144	0.129	0.160	0.291				
2004	0.061	0.287	0.130	0.163	0.091				
2005	0.037	0.149	0.171	0.048	0.217				
2006	0.076	0.181	0.128	0.155	0.253				
2007	0.049	0.073	0.325	0.063	0.095				
Estimated spawners									
Assume 33% of CL									
2003	41	71	225	226	224	119			
2004	41	118	887	366	401	84			
2005	41	110	372	492	198	161			
2006	41	60	154	388	169	211			
2007	41	876	330	332	218	376			
Conservation limits									
Total CL	123	197	543	2172	2410	2410			
18W CL	114	182	502	2006	2229	2229			
25W CL	9	15	41	163	191	191			
within district	0.023	0.036	0.100	0.399	0.443	0.443			
Draft / snap / other catches (by river)									
Draft prop by river	0.00000	0.00000	0.41280	0.30615	0.14053	0.14053			
Snap prop by river	0	0	0	0	0	0			
Other prop by river	0	0	0	0	0	0			
2003	0	0	208	169	73	79			
2004	0	0	305	152	70	103			
2005	0	0	219	226	103	74			
2006	0	0	128	162	74	44			
2007	0	0	0	95	44	0			
Driftnet catches (using river specific proportions of national catch based on CWT analysis in 148 rivers database)									
Prop by river	0.056	0.143	0.254	0.2476	0.1139	0.1139			
2003	16	67	145	108	49	49			
2004	16	67	145	108	49	49			
2005	16	67	145	108	49	49			
2006	16	67	145	108	49	49			
2007	16	0	0	108	49	0			

Independent
Scientific Advice



Iascach Intíre Éireann
Inland Fisheries Ireland

Salmon Management

October

Independent
Scientific Advice

- MSW and 1 SW surplus per catchment
- Juvenile index
- Recommendations on status Open/Closed/CR

IFI Salmon Mgt

- Open Rivers MSW and 1 SW surplus per catchment
- C&R Rivers/Brown Trout
- Licence pricing recommendations

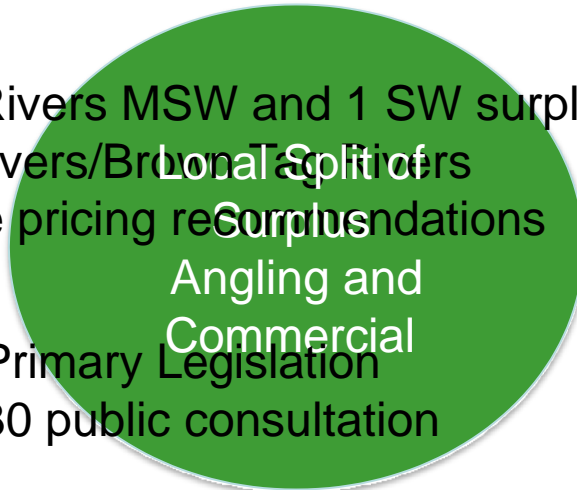
DCCAE

- Draft Primary Legislation
- Start 30 public consultation

IFI Licences
Available

- On-line & Paper licences, tags available
- Season and River information available

1st January



Salmon & Sea Trout Legislation

Wild Salmon and Sea Trout Tagging Scheme (Amendment) Regulations 2017

I, Sean Kyne, Minister of State at the Department of Communications, Climate Action and Environment, in exercise of the powers conferred on me by section 69 of the Inland Fisheries Act 2010 (No. 10 of 2010) and the Communications, Climate Action and Environment (Delegation of Ministerial Functions) Order 2017 (S.I. No. 314 of 2017), after consultation with Inland Fisheries Ireland, hereby make the following regulations:

Cork	Owenacurra	0
	Lower Lee	1,801
	Bandon	818
	Ilen	784
	Mealagh	191
	Coomhola	62
	Upper Lee	0
	Glengarriff	332
	Argideen	103



closed?

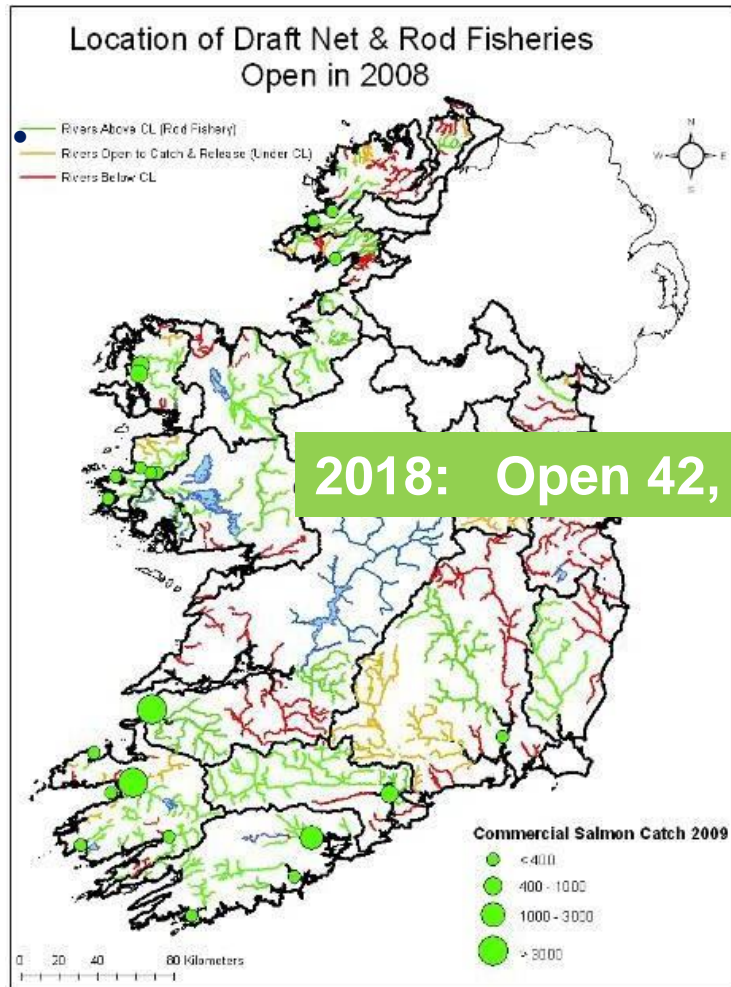


blue tag?



brown tag?

Salmon Management 2008



- 53 rivers open with surplus for exploitation
- 13 rivers with MSW surplus.
- 25 Closed.
- 20 C&R

2018: Open 42, C&R 36 & 65 Closed

average rod catch has been less than 10 salmon annually since 2001. No harvest.

Salmon & Sea Trout Licence

- Season (Jan to Sept)
 - Variations
- Total 10 tags per angler
 - 11th May (only 3 fish)
 - 12th May – 31st Aug Max (3 per day)
 - September (max 1 per day)
 - Brown Tags
- Compulsory catch reporting
- Protection (Irish history)



Salmon Licence Fees (2017)

All Districts (i.e. all Regions) Annual: €100

Juvenile (under the age of 18 years) All Districts Annual: €10

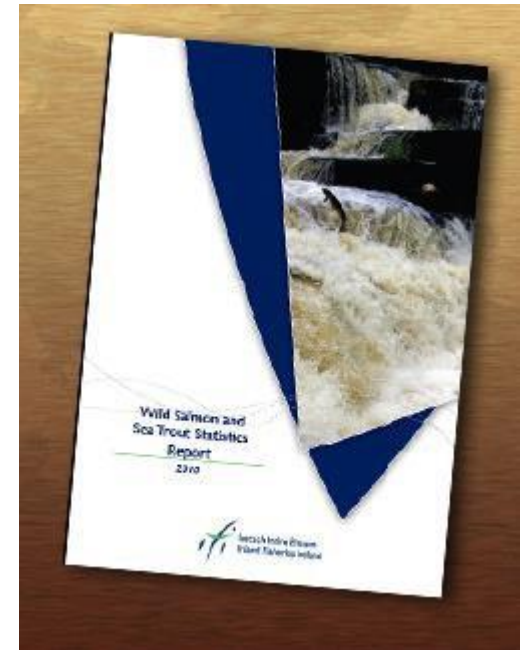
One District, Annual: €56

All districts, 21 Days: €40

All districts, 1 Day: €20

Foyle Area Extension: €80

Special local licence: €24



Salmon & Sea Trout Licence



3. THE TAG

The tag to be used by anglers is a blue plastic self-locking device (an additional brown tag is also required for certain rivers – (refer to Table 1 – Open Fisheries 2017) to ensure angling quotas are not exceeded. Contact the relevant IFI office for details on how to obtain brown tags). Each blue tag is embossed with a code identifying where the tag was issued, the year in which the tag can be used, a security code and a tag serial number.

Anglers should carefully note the following concerning the use of these tags:

- Each rod licence holder will be issued tags for his/her use only. Tags are not transferable between licence holders.
- These tags shall not be re-used.
- One tag shall be attached to each salmon (any size) and sea trout (over 40 cm) caught and retained.
- Tags must be attached immediately on landing the fish.
- Tags shall be attached through the gill opening and mouth of the fish and securely double locked around the gill cover.
- Additional tags shall be issued on presentation of logbook information showing that the licence holder has used the gill tags issued to him or her, subject to bag limits.
- Lost and accidentally destroyed tags may be replaced upon presentation of a signed declaration completed by the angler and signed by an Authorised Officer of Inland Fisheries Ireland.
- Gill tags shall only be removed from the fish at the time of processing in accordance with the Tagging Scheme Regulations. For the purposes of this scheme processing includes: smoking, marinating or cooking the fish, gutting and freezing the fish or cutting any steaks, cutlets or portions of the fish.

4. THE LOGBOOK

On receipt of tags the angler will also receive a logbook. Details of the gill tags issued to an angler will be entered into the angler's logbook by the issuing agent.

Each angler shall:

- Have the logbook in his/her possession while fishing for salmon or sea trout.
- Record all details of their catch in their logbook immediately after tagging the fish.
- Make a catch record even if the fish is released (including kelts and baggots).
- Record details of any lost or damaged tags.
- Declare lost or damaged logbooks to Inland Fisheries Ireland.

5. RETURNING LOGBOOKS AND UNUSED TAGS

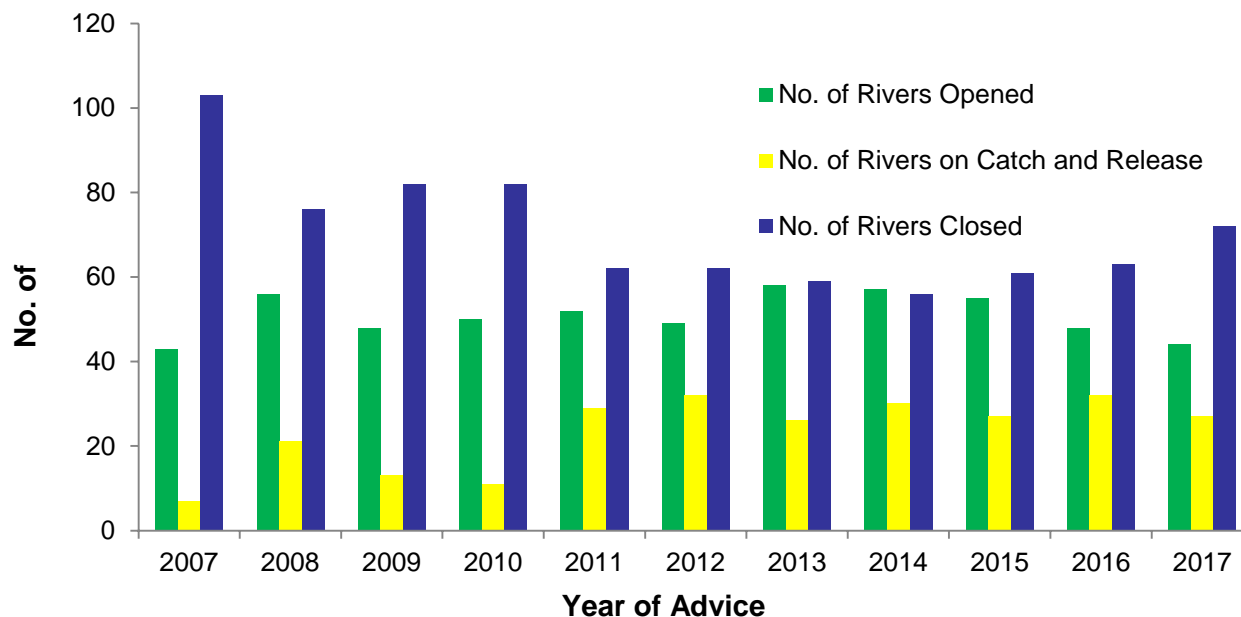
In accordance with the Wild Salmon and Sea Trout Tagging Regulations anglers are required by law to return their completed logbook (even if there is no catch recorded) and all unused tags to the issuing office of Inland Fisheries Ireland by the 19th October annually. A business reply envelope is provided for this purpose. Anglers are required to obtain proof of postage and to retain such proof for 12 months.

Advantages for Management

- retained non tagged wild salmon are illegal fish
 - enforcement
 - differentiate between farmed and wild salmon (restaurants and sales)
- enables management of surplus by catchment and above CL (Brown Tag)
- enables management & traceability of sales of commercial fish
- enables annual salmon advice, predictive modelling and annual mgt measures
- reporting compulsory – provides detailed statistics to sport management
- enables conservation efforts to be focused on catchments below CL
- no mixed stock fisheries on stocks above CL – increased pressure

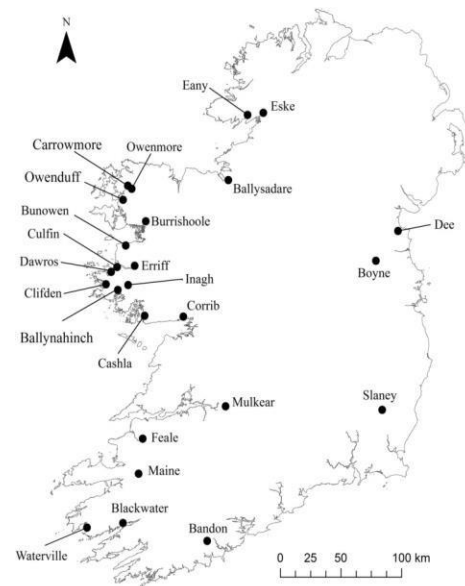
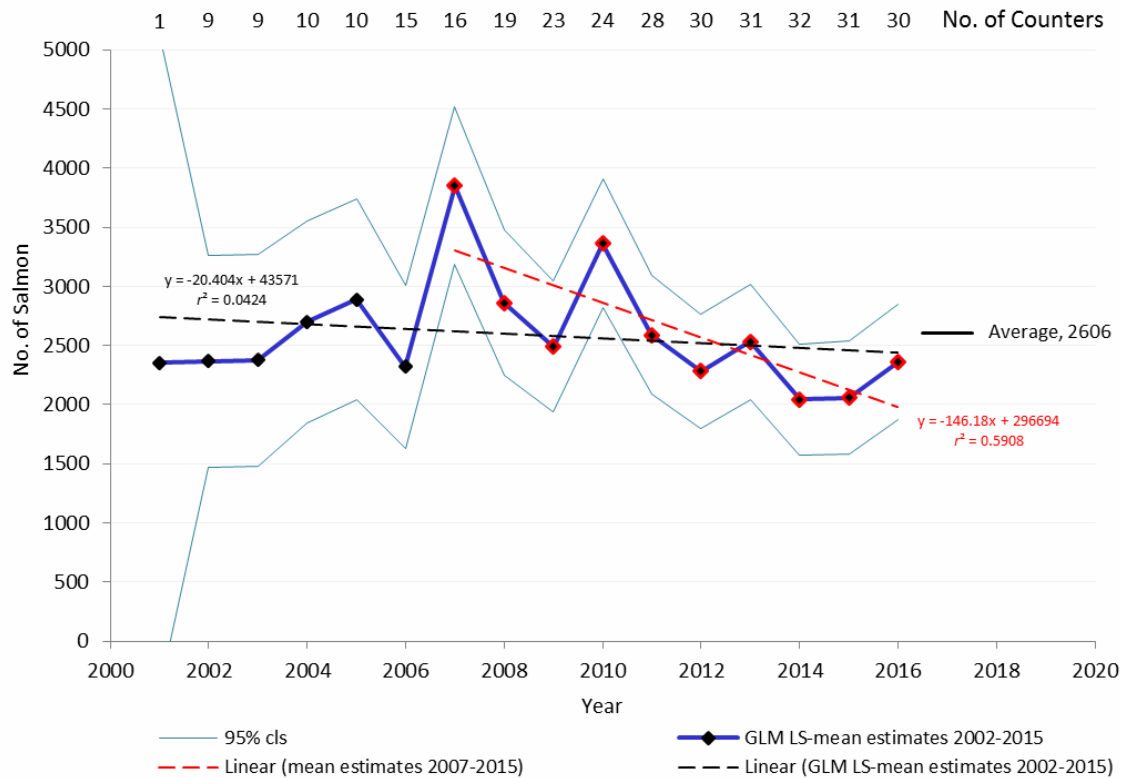


Dynamic Salmon Management



	2007	2008	2009	2010	2011	2012	2013	2014	2015
Commercial catch	8,872	8,903	6,757	14,159	11,973	10,319	14,125	9,570	7,691
Angling harvest	19,430	22,215	17,521	22,336	20,306	22,287	18,178	11,313	15,734
Angling C&R	15,113	13,563	11,422	15,142	12,688	11,891	10,682	6,537	9,383
% of angling that is C&R	43.8	37.9	39.5	40.4	38.5	34.8	37	36.6	37.4

Other data sources – counters programme



WGCIS(18)11**West Greenland Commission Chair's Working Document:
Possible Elements of a New West Greenland Commission Regulatory Measure****Introduction**

In 2015, the West Greenland Commission (WGC) had adopted a Multi-Annual Regulatory Measure for Fishing for Salmon at West Greenland for 2015, 2016 and 2017, WGC(15)21. At its Thirty-Fourth (2017) Annual Meeting of the North Atlantic Salmon Conservation Organization (NASCO), the Commission had agreed to convene an inter-sessional meeting at which it would review the implementation of that measure. It was recognised that a meeting early in 2018 would allow the Parties to consider the report on the 2017 salmon fishery at Greenland and have initial discussions on a possible new regulatory measure to apply from 2018. The WGC met from February 27 to March 1 in Copenhagen, Denmark. Based on discussions at that meeting, the WGC Chair developed this working document that includes a list of elements that could be considered, *inter alia*, for inclusion in a new regulatory measure. Parties to the Commission understand that none of the considerations below have been finalised and the Chair's working document will be further considered by the Parties in advance of the 2018 NASCO annual meeting to support development of a new regulatory measure at that meeting.

- (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;
- (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;
- (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;
- (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;

- (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.

Attachment

- (1) Greenland shall annually collect and verify catch data of fishing activity of all licensed fishermen;
- (2) All professional fishermen fishing for salmon shall require a licence; only licensed professional fishermen shall be authorised to supply salmon to the communities;
- (3) In the case of non-professional fishermen, approaches shall be identified and implemented to provide a means for accurately quantifying harvests;
- (4) Landing of salmon at fish 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;
- (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;
- (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
- (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.