



Agenda item 5.2
For decision

Council

CNL(16)7

Progress Report on the Proposed International Year of the Salmon

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Progress Report on the Proposed International Year of the Salmon

Background

1. At NASCO's Thirty-First (2014) Annual Meeting, the Council was informed that the North Pacific Anadromous Fish Commission (NPAFC) was considering organising an International Year of the Salmon (IYS). The NPAFC Secretariat had indicated that it would be keen to have NASCO as a core partner and would keep NASCO informed as the initiative developed. The Council had agreed that this may be a very good opportunity to raise awareness of the issues facing the salmon globally and the considerable efforts being made to conserve and restore them and asked that the Secretary liaise with NPAFC. Last June, at NASCO's Annual Meeting in Happy Valley-Goose Bay, a representative of NPAFC, Mr Mark Saunders (Chairman of NPAFC's IYS Working and Study Groups), made a presentation outlining NPAFC's ideas for an IYS. He indicated that NPAFC had endorsed, in principle, the concept of an IYS and had held a Scoping Workshop in February 2015 with a further Scoping Meeting planned for 2016.
2. Because of time constraints at NASCO's 2015 Annual Meeting, the Council did not have an opportunity to discuss the IYS, but asked that the Secretary and the Head of the US Delegation, Mr Dan Morris, continue to liaise with NPAFC on arrangements for an IYS and to consider NASCO's possible involvement in, and contribution to, this initiative. Accordingly, a background document, APR38.512, was prepared and circulated to NASCO Parties for comments and the feedback received was summarised in document APR38.545 (Annex 1) and formed the basis of the consultations with NPAFC.

NPAFC's Initial Vision for the IYS

3. NPAFC conceived the IYS as an intensive burst of internationally coordinated, interdisciplinary, stimulating scientific research focused on salmon, and their relation to people. NPAFC considered that the current pace of research to be too slow in the face of environmental change and that additional marine research, focused on distribution and abundance, is needed. NPAFC proposed that the theme of the IYS should be 'Salmon and People in a Changing World'. The species covered would include salmon, trouts and char and the research would examine the cumulative effects of a broad array of human and natural factors affecting these species in order to manage what can be controlled and to mitigate what cannot. NPAFC considers that the IYS should not include research related to farmed salmon production, but research related to understanding interactions between wild and farmed salmon would be considered. The IYS would include a comprehensive communications and engagement plan to facilitate two-way communication between researchers and target audiences, including: students and their teachers; new researchers and their professors; indigenous peoples; communities with salmon; resource managers; the general public; salmon fishers and industry. New technologies would be used both to inform and to receive input through citizen science. While the IYS would be a multi-year initiative, NPAFC noted the benefits of having a year as a 'call to action'. Further details are available on the NPAFC website at www.npafc.org/new/science_IYS.html.

Views of the NASCO Parties

4. Despite the limited deliberations within NASCO prior to and during the 2015 Annual Meeting, the Council had confirmed that the IYS may be a very good opportunity to raise awareness of the salmon globally, the issues facing them and the considerable conservation and restoration measures being taken. It would also be a good opportunity to build closer cooperation with those involved in salmon conservation and management in the North Pacific Ocean, Baltic Sea and possibly the Arctic Ocean. In 2002, NASCO, ICES, NPAFC, the North Pacific Marine Science Organization (PICES) and the International Baltic Sea Fishery Commission (IBSFC) cooperated in holding a workshop entitled 'Causes of Marine Mortality of Salmon in the North Pacific and North Atlantic Oceans and in the Baltic Sea'. The report of the meeting was published as an NPAFC Technical Bulletin. The workshop demonstrated the benefits of cooperation and information exchange and there was support for an expanded international symposium to build on the initial exchanges during the workshop.
5. Following inter-sessional consultations with NASCO Parties, it was confirmed that there is unanimous support for an IYS. NASCO Parties favour a clearly defined, one year initiative (consistent with the NPAFC 'call to action') to raise awareness of the challenges and opportunities facing salmon and in support of fund-raising for new research to better understand the factors driving salmon abundance throughout the 'salmosphere'. The theme of the IYS proposed by NPAFC, 'Salmon and People in a Changing World' captures both the need for a major outreach programme and further research. NASCO Parties consider that focusing the IYS on public relations and outreach activities should not diminish the importance of, or the need for, new research or improved exchanges of information and enhanced cooperation among scientists working in the North Pacific and North Atlantic Oceans and the Baltic Sea. On the contrary, such an initiative could greatly assist in leveraging new funds from the public and private sectors. NASCO Parties considered that the nature and scope of the research proposed in the three areas may, however, differ and identification of research priorities could best be dealt with on a regional basis. In that regard, NASCO's International Atlantic Salmon Research Board is developing an international telemetry programme, SALSEA - Track, to partition marine mortality along the salmon's migration routes.
6. It was suggested that 2018 (or possibly 2019) might be a more realistic target year for the IYS than 2017 (as originally envisaged by NPAFC) if the outreach and public relations initiatives are to be well-planned and coordinated throughout the 'salmosphere'. That does not preclude other activities being undertaken in parallel as resources permit. There is unanimous support among NASCO Parties for a major international symposium to launch the IYS and to allow for a review of the state of the 'salmosphere', highlight the challenges and opportunities facing salmon, identify research priorities and possibly develop a declaration on exchanging information on methodologies, data and research findings. This could be in addition to a dénouement symposium at the end of the research programme. Other outreach initiatives that might be considered could include:
 - exhibits e.g. at natural history museums, aquaria etc. In this regard, the Natural History Museum in London attracts more than 5 million visitors each year and importantly has partners worldwide;
 - seeking cooperation from international fisheries organisations to include themes and sessions relating to salmon in their annual conferences during the IYS;

- development of curriculum packs for schools (e.g. through the Atlantic salmon conservation schools network);
- development of an IYS website or agreed pages for inclusion on the partners' websites;
- IYS Declarations relating to commitments to salmon conservation, research and management in the legislative bodies of Parties/jurisdictions to NASCO and NPAFC;
- production of information packs or templates to be adapted by Parties/jurisdictions on specific issues.

Liaison with NPAFC

7. NPAFC organised a second Scoping Meeting and Working Group meeting that were held in Vancouver, Canada, on 15 - 16 March 2016 and 17 March 2016, respectively. Dan Morris and the NASCO Secretary participated in a series of preparatory conference calls in the weeks prior to the meetings and attended the meetings themselves. NASCO had been asked to identify core partners that might participate in the IYS and an initial list was developed (NASCO's accredited NGOs, EIFAAC, ICES and the OSPAR Commission) and these organisations were invited to attend the meetings in Vancouver. EIFAAC, the OSPAR Commission and ICES were unable to attend, but it is clear from feedback received from these organisations (Annex 2) that they are supportive of the IYS. Sue Scott, Co-Chair of NASCO's accredited NGOs, participated in the Scoping Meeting and her input and expertise in communications were very much appreciated.
8. The purpose of the two-day Scoping Meeting was to seek input to inform the development of a comprehensive strategy for taking forward the IYS. Approximately 60 participants attended the meeting, including representatives of the NPAFC and NASCO Parties and Secretariats, their core partners, potential funders and other stakeholders. The objectives of the Scoping Meeting included to:
 - develop a common understanding of the IYS initiative, scope and purpose;
 - elaborate on, and further develop, the major components of the IYS strategy; and
 - identify the actions needed and the next steps to create a comprehensive IYS strategy.
9. Fifteen participants attended the Working Group meeting which reviewed the outcome of the Scoping Meeting and considered the priority actions needed, the timeframe and how to take the IYS initiative forward. The goals for the meeting included to:
 - outline the components and elements of the final IYS strategy;
 - identify the priority next steps and responsibilities, including timelines, to finalise the IYS strategy; and
 - determine the governance arrangement (process and accountabilities) and the organisations that will be involved.
10. NASCO's views were presented at both the Scoping and Working Group Meetings and appeared to have been well received. This opportunity is very much appreciated. The Workshop developed an outline proposal for the IYS (Annex 3), that provides a rationale and vision for the IYS, considers its nature, scope and timing, proposes a governance model, suggests an initial budget and identifies the possible next steps. In summary, the outline proposal recommends the following:

- that the main vision for, and aims of, the IYS include improving understanding and awareness of the factors driving salmon abundance, the environmental and anthropogenic challenges facing salmon and the measures being taken to mitigate these and to generate further support for action to implement effective management strategies to conserve and restore salmon;
 - that the focus of the IYS will be during a single (launch) year when there will be special emphasis on salmon throughout the ‘salmosphere’, comprising concerted and coordinated public outreach, engagement and education activities to increase awareness and understanding of the issues facing salmon and in support of fundraising for research. There would be a major international symposium to launch the IYS in order to review the state of the ‘salmosphere’;
 - that there be three phases to the IYS: an initial planning phase; a launch year (2018 or 2019); and a period for implementing new research under the IYS brand (a five-year period from the launch year);
 - that the IYS brand and organisational/communication structure will persist throughout the three phases but the nature and scope of the activities undertaken will be largely a matter for decision at regional/RFMO and Party/jurisdiction levels;
 - that the governance of the IYS needs to be inclusive, flexible and supportive and its success will depend on the involvement of a wide range of partners. The governance model would include a low level of common services, such as branding, information exchange on outreach initiatives and coordination of salmosphere-wide research efforts. However, most IYS activities would be conducted at regional/RFMO and Party/jurisdiction levels;
 - initial budgetary provision would be needed in 2017 (if the launch year is 2018) and possibly in 2016 and the budgetary requirements could be reviewed in 2017 in the light of progress in planning the IYS; and
 - NPAFC and NASCO should consider and, where necessary, revise the outline proposal for endorsement at their 2016 Annual Meetings.
11. It is recognised that there is very limited time in which to prepare for the IYS if the launch is to be in 2018. If further work and consultations are required before adoption of the outline proposal then 2019 might be a more realistic option for the launch year (although the launch symposium might still be scheduled for the last quarter of 2018).
12. The Council is asked to consider the outline proposal for the IYS and decide on appropriate action. If the Council does decide to proceed with the IYS in 2018, a number of decisions will need to be taken, ideally during the 2016 Annual Meeting, including:
- endorsing the IYS outline proposal including nature and scope, timing and governance model;
 - agreeing an appropriate budget contribution for 2017 (the outline proposal recommends a contribution of £60,000 each from both NPAFC and NASCO);
 - appointing NASCO representatives to the IYS Coordinating Committee (not more than four, including one from the Secretariat);
 - appointing NASCO representatives to the IYS Symposium Steering Committee (not more than three, including one from the Secretariat);

- appointing a Regional/Steering Committee (one from each Party and core partners);
 - requesting that the Secretary liaise with NPAFC on the arrangements for the work of the IYS Coordinating Committee and IYS Symposium Steering Committee and with NASCO Parties on the work of the Regional Steering Committee; and
 - requesting that the Secretary liaise with the European Union and the Russian Federation concerning the possible involvement of representatives from the Baltic and with the Vice-President of NASCO concerning the possible involvement of a representative of the Arctic Council.
13. Mark Saunders will again represent NPAFC at the Thirty-Third Annual Meeting of NASCO and will provide an update on the deliberations on the IYS at NPAFC's Annual Meeting (16 – 20 May 2016).

Secretary and Head of US Delegation
Edinburgh
9 May 2016

***Summary of responses to the questions raised in
the Discussion Document on the IYS***

- 1. Do you support the concept of organising a clearly defined, one year (2017 or 2018) call to action or IYS initiative to raise awareness of the challenges and opportunities facing salmon in the 'salmosphere' and in support of fund-raising for new research including that envisaged under the SALSEA-Track programme, or do you support a multi-year IYS including the research programme?***

There is unanimous support for an IYS. In general, NASCO Parties support a clearly defined, one year initiative to raise awareness of challenges and opportunities facing salmon and in support of fund-raising for research. Two Parties suggest that 2018 might be more appropriate as the designated IYS. It is suggested by two Parties that there may be a need to consider the duration of the IYS further when additional information is to hand on NASCO's involvement.

- 2. Do you support establishing a joint Steering Committee to work with partners in planning the activities for the IYS recognising that the identification of research priorities and fund-raising would be a matter for each Organisation? The Secretary and Head of the US Delegation have already been asked to liaise with NPAFC but it may be desirable to expand NASCO representation on this Steering Committee once the nature and scope of the IYS are agreed?***

There is support for the establishment of a Steering Committee but a recognition of the need to define that Committee's role and composition and consider budgetary issues once the nature and scope of the IYS are agreed. Two Parties have indicated that the identification of research priorities and fund-raising should be conducted at a regional level (i.e. North Pacific, North Atlantic etc.).

- 3. Do you agree that the Secretary and Head of the US Delegation should participate in the next scoping meeting that NPAFC is planning in early 2016 in order to progress the initiative and that potential funders should not be approached until such time as the nature and scope of the IYS are agreed?***

There is general support for the Secretary and Head of the US Delegation should participate in the next scoping meeting. One Party has suggested that either the Secretary or Head of the US Delegation should participate but we feel that it would be helpful for both to attend and NPAFC are likely to have many representatives at the meeting. There is general agreement that potential funders should not be approached until the nature and scope of the IYS but one Party has suggested that it would not have an issue with potential funders being invited to attend the meeting so long as it is made clear that the scope of the IYS has not yet been finalised.

4. *Do you agree with the proposals for NASCO's core partners to cooperate in the development and implementation of the IYS?*

Most Parties support involving NASCO's core partners such as its accredited NGOs and IGOs (including ICES, EIFAAC and the OSPAR Commission). One Party has suggested that it will be important that there is a global agenda and that local issues do not predominate. One Party has suggested that there is a need to resolve the nature and scope of the IYS before involving partners.

5. *Do you support the proposal to hold a joint symposium with NPAFC and other core partners during the IYS to review the state of salmon in the 'salmosphere' and to identify approaches to further improve cooperation and coordination among scientists working in the North Pacific and North Atlantic Oceans and the Baltic Sea?*

There is general support for a joint symposium to review the state of the salmon in the 'salmosphere', to increase awareness of the challenges and opportunities for salmon and to improve cooperation and coordination among scientists in the different regions. One Party has recognised the need to have clarification of how the symposium would be funded and that it should be focused over no more than 3 days. One Party has noted that NPAFC's vision of the IYS includes salmon, trout and char and, if the symposium is to proceed, it should cover these species.

6. *Do you support the focus on other public relations initiatives outlined above or do you have other suggestions that could be considered?*

There is general support for the public relations initiatives identified in the discussion document. No additional proposals were made.

7. *Do you support the need to provide funds through the NASCO budget in 2017 and/or 2018 in support of the IYS, the extent to be determined in the light of the Steering Group's recommendations and that the Secretary be authorised to incur expenditure in relation to the IYS from the 2015 and 2016 budget subject to existing budgetary provision?*

It is recognised that further clarification is required on the budget implications once the nature and scope of the IYS are resolved. There will be a need for further consideration of the financial implications of the IYS at NASCO's Thirty-Third Annual Meeting. Most Parties agree that the Secretary be authorised to incur expenditure in relation to the IYS from the 2015 and 2016 budget subject to existing budgetary provision. One Party has asked for further clarity on what funds are available and what they might otherwise be used for. No expenditure related to the IYS will be incurred from the 2015 budget and it is anticipated that expenditure in 2016 will be limited to attendance at the scoping meeting with the costs found from within the existing travel budget.

8. *Additional comments made on the Discussion Document*

One Party has suggested some additional areas of research including interactions between wild and farmed salmon, the economic and social value of moving from wild salmon fisheries to aquaculture, understanding of 'cumulative impact' and the role of citizen science for promoting the IYS and in data collection.

Statements of support for the IYS received from NASCO Core Partners (EIFAAC, ICES and the OSPAR Commission)

European Inland Fisheries and Aquaculture Advisory Commission (EIFAAC)

EIFAAC would welcome an opportunity to support this important initiative and is particularly interested in supporting the exchange of knowledge and research as it pertains to the freshwater element of the life-cycle. While there are many issues to be considered here, we would like to ensure that specific issues associated with land locked salmon are also considered.

EIFAAC concurs that the theme ‘Salmon and People in a Changing World’ captures the threats and research requirements to support the conservation of the species. EIFAAC has several research projects and initiatives that could contribute to this discussion. EIFAAC would support the moving of the proposed IYS to 2018 as we already have plans and initiatives defined for 2017, for example the EIFAAC 29th Session and Symposium to be held in Poland. We have contacted the symposium hosts and can confirm that consideration could be given to the dedication of a small section of the symposium to the IYS. EIFAAC would also be supportive of an international symposium (2018) to highlight the IYS and to support the exchange of research and knowledge on global salmon issues.

International Council for the Exploration of the Sea (ICES)

ICES is considering the potential to participate in the International Year of the Salmon pending further information. There are ongoing initiatives within ICES which are relevant to highlight:

- ICES provides scientific advice to competent authorities on salmon. An example of work conducted in support of this advice is the recent ICES workshop to address the NASCO request for advice on possible effects of salmonid aquaculture on wild Atlantic salmon populations in the North Atlantic (WKCULEF) which took place 1–3 March 2016;
- ICES is an extensive network of scientists, with already existing Working Groups dealing with salmon issues, and the infrastructure exists to further activate this network on specified marine science topics, related to salmon; and
- The ICES Annual Science Conference takes place every September, and in 2017 will be in Fort Lauderdale, US. This conference could be used as a venue for activities relating to an International Year of Salmon.

More information is provided below.

Options for ICES involvement and contribution

ICES recognises that the IYS may be a very good opportunity to raise awareness of the salmon globally, the issues facing them and the considerable efforts being made to conserve and restore them. It is also a good opportunity to build closer cooperation with those involved in salmon science and advice on conservation and management in the North Atlantic, North Pacific Ocean and Baltic Sea. ICES therefore endorses the concept of an IYS. However, the process is still at an early stage and there is a need to carefully consider ICES involvement in, and contribution

to, such an initiative and the resources it wishes to make available to support the IYS, so that informed discussions can be held with NPAFC.

NASCO and ICES have organized several international symposia that have been well attended, well reported (both in scientific journals and reports targeting a broader audience) and with media coverage. Such initiatives could be developed directly with NPAFC and other IYS partners during the IYS. The ICES Journal of Marine Science is an excellent vehicle for publishing symposia special volumes and ICES could consider making this available for a specific high quality symposium during the IYS.

ICES have a wide range of Expert Groups dealing in many of the scientific issues requiring focus during the IYS. The information would be available to the IYS programme and possibly joint participation at some ICES Expert Groups could be arranged. ICES have infrastructure and support mechanisms for establishing Expert Groups for a wide range of ecosystem assessment challenges.

ICES have been a forerunner in developing approaches for the Ecosystem Approach to management of marine resources and in applying integrated ecosystem assessments of major fisheries resources.

IYS could submit proposals for Joint Theme Sessions during the ICES Annual Science Conference in 2017 or 2018 to showcase important research and developments in understanding marine mortality of salmonids. Joint symposia could be developed based on IYS activities which ICES could provide support for.

ICES have a very active communications section who could support any joint initiatives in publicizing and outreach activities.

International Collaboration

ICES note previous collaborations with NPAFC on salmon, notably the workshop entitled 'Causes of Marine Mortality of Salmon in the North Pacific and North Atlantic Oceans and in the Baltic Sea' which was held in 2002, and co-operatively hosted by NASCO, ICES, NPAFC, PICES and the International Baltic Sea Fishery Commission (IBSFC). There was clear feedback at this workshop on the value on maintaining links between the groups and in furthering investigations into areas of common concern which would lead to better understanding of factors affecting survival of salmonids at sea. There was also a clear understanding that it was unlikely that options for management and conservation would be improved without such an initiative.

In the intervening period, climate change processes have continued to affect major salmonid stocks. While some excellent research has been carried out in the intervening period, notably resulting in outputs from the BASIS programmes in the North Pacific and the SALSEA initiatives in the North Atlantic, there is a clear need to develop and focus programmes of research on key aspects of marine ecology affecting salmonid species and population status and in particular to co-ordinate actions across jurisdictions and salmonid species.

NPAFC has now proposed, in principle, the concept of an International Year of the Salmon and has already held the first Scoping Meeting to further develop ideas for the IYS a multi-year (2015–2022) programme centred on an intensive burst of internationally coordinated,

interdisciplinary, stimulating scientific research on salmon, and their relation to people. This first scoping Workshop was held in February 2015, and ICES was identified as a key potential partner.

The NPAFC is hosting a Second IYS Scoping Meeting on March 15–16, 2016, in Vancouver, BC, and has invited ICES to join this meeting to advise and support in planning this initiative. NPAFC note that ICES share alignment with the goals of the IYS and/or its research themes and request that ICES consider joining the Second Scoping Meeting to help shape the initiative at this critical stage.

ICES considers this to be a very good opportunity to raise awareness of the salmon globally, the issues facing them and the considerable efforts being made to conserve and restore them.

This document outlines NPAFC’s vision of the IYS, where ICES has a common involvement makes some suggestions for ICES possible involvement.

NPAFC’s Vision for the IYS

The information presented here is based on NPAFC documents related to the IYS, the NPAFC presentation made at NASCO’s Annual Meeting in Goose Bay, Canada June 2015.

NPAFC views the IYS as an intensive burst of internationally coordinated, interdisciplinary, stimulating scientific research focused on salmon, and their relation to people. It considers that new technologies, new observations and new analytical methods, some developed exclusively during the IYS, will be focused on gaps in knowledge that prevent the clear and timely understanding of the future of salmon in a rapidly changing world. It considers that the current pace of research is too slow in the face of this change and that a burst of activity is needed to develop new tools, a coordinated approach to their development and application and field observations to close information gaps.

ICES concurs with the above statements and we are very keen, therefore, that The Scoping Meeting in Vancouver clarifies the proposed nature, scope and timing of the IYS. ICES also considers the theme of the IYS proposed by NPAFC as ‘Salmon and People in a Changing World’ to be appropriate.

Timing

ICES would support the current move towards a clearly defined, one year initiative (consistent with the NPAFC call to action) to raise awareness of the challenges and opportunities facing salmon and in support of fund-raising for new and important research to better understand the factors driving salmon abundance throughout the ‘salmosphere’.

Nature and scope

It will include salmon, trouts and char. The rationale for the research, predominantly in the ocean and focused on distribution and abundance, is that environmental changes are occurring in the ‘salmosphere’ that will affect salmon. Resource managers, fishers, processors, businesses and governments need a better understanding of the future of salmon populations but there is currently insufficient knowledge to understand how the changes will play out. NPAFC considers that new insights will require an understanding of the cumulative effects of a broad

array of human and natural factors affecting salmon in order to manage what can be controlled and to mitigate what cannot. *ICES concurs with this view.*

Selected key studies envisaged by NPAFC and current ICES activities include:

- comparative studies across the ‘salmosphere’ to understand what is driving variability and survival;

ICES have a theme session scheduled at their 2016 Annual Science Conference on “Ecosystem changes and impacts on diadromous and marine species productivity”.

- application of climate forcing models up to higher trophic levels and salmon to project changes in the ecosystem and salmon;

ICES have Expert Groups active in this area and have held a number of ASC relevant theme sessions in recent years.

- winter and summer distribution in the first and second year in the open ocean;
- limitations of productivity in the open ocean;

ICES have Expert Groups active in this area and have held a number of ASC relevant theme sessions in recent years.

- application of new tagging technology to understand salmon migration and survival;
- optimal hatchery production;
- application of genomic technologies to understand the factors affecting salmon;

ICES have a dedicated Expert Group deal with these issues.

- the role of salmon in food security;
- changes in salmon and the effect on communities;
- aquaculture interactions with wild fish would be considered.

ICES have a number of relevant Expert Groups active in this area. Further, ICES have recently provided advice to OSPAR on interactions between wild salmonids and aquaculture and been asked by NASCO for advice regarding interactions of aquaculture on wild salmonids which is currently being prepared.

NPAFC considers that the IYS should include a comprehensive Communications and Engagement Plan to facilitate two-way communication between researchers and target audiences (including: students and their teachers; new researchers and their professors; indigenous peoples; communities with salmon; resource managers; the general public; salmon fishers and industry). New technologies will be used both to inform and to receive input through citizen science.

In this regard, ICES have a very active communications department who could support any joint initiatives in publicising and outreach

The OSPAR Commission

- The OSPAR Commission, and its Contracting Parties consider Atlantic salmon (*Salmo salar*) to be a species of particular concern. As such the species was added to the OSPAR list of threatened and/or declining species and habitats in 2003 (OSPAR agreement 2008-06).
- The OSPAR Commission are in the process of considering a Draft Recommendation to address conservation concerns for the Atlantic salmon that fall within the competence of OSPAR. This is seen as an important issue for OSPAR and we are keen to ensure that, within our remit, the OSPAR Commission can make a contribution to a global effort.
- OSPAR could be supportive of a focused initiative such as the proposed International Year of the Salmon. Timing-wise, if the year was 2018 or 2019 this would help any potential engagement/ alignment of activities from the OSPAR side.

Relevant information from the 2008 International Year of the Reef:

- (1) despite an early proposal http://www.coralreef.gov/meeting15/dawson_iyor.pdf (from early 2006), ICRI reached final agreement that it should go ahead in October 2006 – this gave 15/16 months planning from agreement until the launch date of 21 Jan 2008.
ToRs for the coordination group were agreed in 2007
http://02cbb49.netsolhost.com/secretariat/japangm/docs/ToR_IYOR_CU.pdf
- (2) the following presentation introduces the International Year of the Reef and sets out the agreed objectives as well as providing information on various activities, side events etc., to give a feel for the types of activities that were undertaken – everything from children’s drawing competitions to a UNEP small grants initiative, and a campaign to raise awareness about precious corals.
<https://www.cbd.int/cepa/cepaair/2008/icri-2008-05-en.pdf>
(see <http://www.tooprecioustowear.org/partners/ecofriendly.html>)
- (3) the IYOR action plan
http://www.env.go.jp/nature/biodic/coralreefs/pdf/international/w_meeting_20/international20_10_eng.pdf
- (4) you tube channel <https://www.youtube.com/user/IYOR2008>
- (5) a review of all that went on <http://www.reefcheck.org/reef-news/international-year-of-the-reef-2008-in-review>

Outline proposal for an International Year of the Salmon (IYS)

‘Salmon and People in a Changing World’

This proposal was developed at a meeting of an International Year of the Salmon (IYS) Working Group convened by NPAFC and comprising representatives of NPAFC and NASCO. The meeting was held in Vancouver, Canada on 17 March 2016. The proposal is intended to support NPAFC and NASCO in deciding how best to take forward the exciting prospect of an international focus on salmon and their importance to people in the North Pacific and North Atlantic Oceans and potentially also the Baltic and Arctic regions. While NPAFC and NASCO and several of their core partners have endorsed the concept of an IYS in principle, this proposal differs somewhat from an earlier proposal considered by NPAFC and presented to NASCO.

1. Rationale

Salmon are an important biological and economic resource throughout their range, including in the North Pacific and North Atlantic Oceans and the Baltic Sea (collectively referred to as the ‘salmosphere’). They face many challenges and uncertainties not least those associated with climate change. There is a need to advance understanding and awareness of the issues facing salmon around the salmosphere, and their implications for communities that benefit from the resource, through implementation of a programme of new research, collaboration and outreach.

2. Vision

The overall theme of the International Year of the Salmon (IYS) is ‘Salmon and people in a changing world’. The extraordinary life history of salmon exposes them to many environmental and anthropogenic factors influencing their health and abundance. The IYS seeks to raise awareness of what humans can do to better ensure salmon and their varied habitats are conserved and restored. Increasingly the pace of our scientific efforts to understand the factors affecting salmon under a changing climate is not rapid enough to effectively support the management of salmon and allow us to realize the important social and economic benefits that salmon provide now and into the future. Therefore the IYS also seeks to stimulate an investment in research which will leave a legacy of knowledge, data/information systems, tools and a new generation of scientists equipped to provide timely advice that will inform the conservation, restoration and rational management of salmon.

The proposed aims of the IYS are to:

- improve scientific understanding and public and political awareness of the factors driving salmon abundance, the environmental and anthropogenic challenges facing salmon and the measures being taken to mitigate these;
- generate further support for strategies to conserve, restore and rationally manage salmon;
- develop a legacy of collaboration among organisations and researchers across disciplines in countries throughout the salmosphere;

- inspire and support a new generation of researchers and managers;
- improve understanding and awareness of the ecological, social, cultural and economic values of salmon; and
- engender a call to action to support research and conservation of salmon and their supporting environment throughout the salmosphere.

3. Themes

The proposed core outreach, engagement, and education themes for the IYS include improving public and political awareness of the status of salmon stocks and their cultural, social and economic importance and of the challenges they face from major environmental changes and a variety of anthropogenic factors. The outreach and education initiatives could be adapted in scale to address these ideas across the salmosphere, in the individual jurisdictions and even in communities adjoining salmon rivers.

The proposed research themes for the IYS are as follows:

- *Status of Salmon*: to understand the present status of salmon and their environments;
- *Salmon in a changing salmosphere*: to understand and quantify the effects of natural environmental variability and anthropogenic factors affecting salmon distribution and abundance and to make projections of their future changes;
- *New Frontiers*: to develop new technologies and analytical methods to advance salmon science and to explore the uncharted regions of the salmosphere;
- *Human Dimension*: to improve the resilience of people and salmon through the connection and collaboration of salmon-dependent communities, indigenous peoples, youth, harvesters and resource managers across the salmosphere;
- *Information Systems*: to develop an integrated archive of accessible electronic data collected during the IYS and tools to support future research.

4. Timing

It is proposed that the focus of the IYS will be during a single year when there will be special emphasis on salmon throughout the salmosphere, comprising concerted and coordinated public outreach, engagement and education activities to increase awareness and understanding of the issues facing salmon and in support of fundraising for research. Any programme of research requires extensive planning, funding, data collection and analysis before the findings can be disseminated; this process will take many years. Throughout this period, the IYS brand and organisational/communication structure will persist. The nature and scope of the activities undertaken will, however, be largely a matter for decision at regional/RFMO and party/jurisdiction levels. The IYS initiative will, therefore, comprise three phases (planning, launch and research) with the intention that the IYS focal year will be held in 2018. These phases are as follows:

Planning (2016 – 2017): develop an IYS brand, website, brochures, posters newsletters and other materials; develop an outreach approach and communications strategy; confirm research themes, identify research priorities and develop research plans; develop criteria for IYS endorsement of research proposals; identify and engage core partners; agree the governance

model and appoint members of Committees; identify capacity requirements; develop a fund-raising strategy; and further develop and refine budgets.

Launch (2018): launch the IYS focal year, possibly during 2018, by convening an international symposium focusing on the state of the salmosphere and to facilitate the development of a legacy of improved collaboration among organisations and scientists throughout the salmosphere; initiate a significant outreach and communications initiative to raise awareness of the values of salmon, the uncertainties and challenges facing salmon and the measures being taken to conserve, restore and rationally manage them and in support of fund-raising for new research to better understand the future of salmon in a rapidly changing salmosphere. Outreach activities could include exhibits at museums and aquaria; themes and sessions related to the IYS at the annual meetings of international fisheries organizations and regional science societies; symposia and workshops; development of educational materials for schools; development of IYS webpages and newsletters; IYS Declarations in the legislative bodies of the Parties to NASCO and NPAFC and core partners; preparation of a State of the Salmon report (reports) or an Atlas (Atlases) of salmon distribution and abundance.

Implement and report on new research (2018 – 2022): conduct research; analyse and publish results; and disseminate findings through convening an international dénouement symposium to review the accomplishments of IYS, to share findings, and to consider whether coordination at the salmosphere-level should continue. Local symposia or workshops with IYS endorsement might also be organised. Research priorities would be resolved at the regional (e.g. Pacific, Atlantic and Baltic) level but new and ongoing research proposals could seek IYS endorsement. There would be a need to maintain a level of outreach activities during the implementation of the IYS research.

5. Scope

All life history stages of salmon of the sub-family Salmoninae to reflect the different mandates of the partner organisations. In the case of the North Atlantic and Baltic, the IYS would focus on Atlantic salmon (*Salmo salar*) while in the North Pacific it would cover Pink salmon (*Oncorhynchus gorbuscha*), Chum salmon (*O. keta*), Sockeye salmon (*O. nerka*), Coho salmon (*O. kisutch*), Chinook salmon (*O. tshawytscha*), Cherry salmon (*O. masou*) and Steelhead trout (*O. mykiss*). Each lead organisation (i.e. NPAFC and NASCO) would resolve if it wishes to expand this scope to cover other species (e.g. char and trout) or non-anadromous forms of the species listed above in its own research plan, outreach plan, and other IYS activities. The lead organisations would also liaise with organizations dealing with the Arctic and Baltic to seek their involvement in the IYS.

6. Governance

The governance of the IYS needs to be inclusive, flexible and supportive and its success will depend on the involvement of a wide range of partners. It is recognised that there may be different issues affecting salmon around the salmosphere, different research priorities and a different focus of activities in different regions. The IYS will be adaptable in scale depending on funding received and support for regional/RFMO and party/jurisdiction specific initiatives. The governance structure may need to be reviewed occasionally for its adequacy and effectiveness, depending on how the initiatives develop. It is anticipated that most of the IYS activities will be undertaken at the regional/RFMO and party/jurisdiction levels and there will be a range of objectives that will need to be coordinated at different levels (salmosphere,

regional/RFMO (i.e. North Pacific, North Atlantic and Baltic) and within individual Parties/jurisdictions) (see attached organizational chart on page 9). The Baltic could have a separate Steering Committee but there is no RFMO for the Baltic and the advice of the EU and Russia would need to be sought on an appropriate approach for implementing the IYS in that region (either a separate Regional Steering Committee or jointly with the Atlantic through NASCO). There may also be benefits from involving organisations concerned with the Arctic region. The objectives at different levels of governance are as follows:

Activities applying throughout the salmosphere (IYS Coordinating Committee):

- Develop an IYS brand (logo, slogan and messages) and guidelines for its use;
- Develop, maintain and possibly host IYS web pages, possibly including templates for use by participants in the IYS;
- Develop and distribute newsletters, posters, brochures and other materials concerning IYS activities at a salmosphere level;
- Define broad outreach principles;
- Develop criteria for IYS endorsement of research and review research proposals and other activities seeking IYS endorsement;
- Identify research priorities at a salmosphere level and coordinate any research programmes implemented, recognising that most IYS research is expected to be at regional/RFMO or party/jurisdiction levels;
- Coordinate fundraising activities in support of the IYS Coordinating Committee functions;
- Organise the IYS international symposia through dedicated Symposia Steering Committees; and
- Establish a hub for compilation and sharing of information on IYS activities.

Regional/RFMO level (IYS Regional Steering Committees):

- Engage core partners;
- Resolve species, life stages and geographical areas to be included in the IYS in addition to those listed under section 5 above;
- Identify research priorities and develop research plans;
- Develop outreach activities, target audiences and messages;
- Establish a hub for compilation and sharing of information on IYS activities; and
- Coordinate fund-raising in support of the IYS Regional Steering Committee functions.

Party/jurisdiction specific level (Individual Parties/jurisdictions, NGOs and core partners):

- Conduct the primary IYS functions of research and public engagement, informed by IYS core principles and branding;
- Seek and disburse funding e.g. to State/Provincial/Local governments and RFMOs;
- Undertake outreach activities;
- Organise or support regional symposia and workshops or other events; and
- Engage with First Nations.

It is envisaged that the IYS Coordinating Committee would comprise nominated representatives appointed by the lead organisations that would undertake activities at the salmosphere level such as: development of an IYS logo, slogan and web page; organise symposia through a separate Symposium Steering Committee; identify data needs and research priorities across the salmosphere and coordinate activities undertaken across more than one region in the salmosphere; and review and endorse research proposals conducted at a regional or party/jurisdiction level. The Committee would work wherever possible by correspondence but would need to meet perhaps on an annual basis and would report back to the lead organisations on its work. There would likely be the need for professional support in developing the IYS brand materials, including the web page, logo and slogan, and possibly in support of regional activities. The Symposium Steering Committee for the international symposium planned for the IYS launch would need to commence its work no later than the autumn of 2016 if a symposium is to be held to mark the launch of the IYS in 2018.

There would be Regional Steering Committees in the North Pacific, North Atlantic and possibly the Baltic, led by NPAFC in the Pacific and NASCO in the Atlantic and supported by the Secretariats of those organisations. These Committees would provide the fora for cooperation between the lead organizations and core partners and propose outreach activities. They would coordinate the activities being undertaken in their regions and share information with the overall IYS Coordinating Committee. It would also be a matter for those Regional Committees to identify research gaps and priorities, seek funding, organise calls for research proposals and disburse sums raised noting that NASCO has already established its International Atlantic Salmon Research Board (and Scientific Advisory Group) for this purpose. If this proposal is accepted, it is suggested that the Steering Committees be established at the 2016 annual meetings of NPAFC and NASCO with a view to commencing their work at the earliest opportunity thereafter, including further consideration of budgetary needs.

7. Initial budgetary considerations

NPAFC and NASCO provide adequate and appropriate fora for developing and advancing the basic concept of the IYS among their member parties and core partners and would be the lead organisations. It is anticipated that a relatively small centralised budget, shared by the two lead organizations (and possibly their core partners and external sources), would be required to support initial activities but the IYS governance structure proposed allows for regional implementation that would be adaptable in terms of nature and scale of the activities undertaken. If NPAFC and NASCO agree at their 2016 annual meetings to proceed with an IYS there will be a need for further consideration of budgetary issues. This would predominantly be a task at the Regional/RFMO level, through the IYS Regional Steering Committees, but would involve the Coordinating Committee in the case of activities applying throughout the salmosphere. Further consultation should occur well in advance of the 2017 annual meetings of the lead organizations to clarify anticipated future expenditure (2018-), e.g. the need for regional coordinators or an IYS project officer.

The most immediate need is to approve funding to support the initial planning stage of the IYS activities (2016 and 2017). Given the budgeting cycles of both organizations, initial funding for the planning stage will need to be agreed at the 2016 meetings. While the funding strategy could include Commission funds or funds raised externally, it is recommended that NPAFC and NASCO make budgetary provision to allow for the development of the IYS brand and towards the cost of the 2018 symposium. It is recognised that the NASCO budget has already been agreed for the calendar year 2016 so, if funds cannot be found from within that budget,

then the earliest a contribution could be made to the IYS would be 2017 unless external funds could be raised.

As previously noted the main planning activities for 2016 and 2017 are as follows:

- complete and implement the IYS governance model and appoint members of the IYS Coordinating Committee, Regional/RFMO IYS Steering Committee and Symposium Steering Committee;
- identify and engage core partners;
- identify capacity requirements in the NPAFC and NASCO Secretariats; develop a fund-raising strategy; and prepare budgets;
- develop an IYS brand, website, brochures, posters newsletters and other materials;
- develop an outreach approach and communications strategy;
- develop criteria for IYS endorsement of research proposals;
- plan 2018 Symposium; and
- confirm research themes, identify research priorities and develop research plans;

It is anticipated that many of these initial planning activities could be undertaken without the need for specific budget provision using existing resources within the Secretariats and that some of the work would be undertaken by correspondence. However, initial funding will be needed in 2016 and/or 2017 with regard to the 2018 symposium and developing the IYS brand. A strategy for communications and fundraising for activities at a salmosphere level may also be required and the Working Group discussed some options. The costs of any activities at a salmosphere level should be shared equally among the lead organisations.

Professional support, such as marketing expertise, will be required, e.g. for the development of an IYS brand and webpages to ensure a uniform identity across all participating parties and organisations. A request for proposals to provide the services may be needed to make a reliable cost estimate but a figure of £30,000 (CAN\$56,000), shared between the lead organisations, might be required in 2017.

One major activity will be to convene an international symposium to launch the focal year of the IYS in 2018. It is suggested that a budget of around £40,000 (CAN\$75,000), shared between lead organisations, might be required. As costs may be incurred in advance of the symposium (e.g. deposit for symposium venue), it is recommended that budgetary provision be made by NPAFC and NASCO in 2017. Additional funding would be expected to be raised from registration fees and sponsorship.

Activities at a regional level would be a matter for the Steering Committees to resolve but given budget cycles it is recommended that initial funds be provided to support those activities. An initial budget of £25,000 (CAN\$47,000) for each of the lead organisations might be appropriate but would need to be reviewed as the IYS activities develop. There may be a need for additional capacity within the NPAFC and NASCO Secretariats to be resolved once the nature and scope of the IYS are agreed.

Thus, it is proposed that both NPAFC and NASCO make base budget provision of £60,000 (CAN\$112,000) in 2017. This sum is seen as modest given the perceived benefits of the IYS to the lead organisations and others.

It should be recognised that within each region, implementation of the IYS may be managed differently. A large portion of the coordination effort in the North Atlantic is expected to be undertaken by the NASCO Secretariat and the participation of NASCO Parties in the IYS Regional Steering Committee and the Symposium Steering Committee should not require financial assistance through the NASCO budget. This may be handled differently in the North Pacific where funding may be required for these activities..

8. Next Steps

It is recognised that while both NPAFC and NASCO, and several core partners, have endorsed the concept of an IYS in principle, this revised proposal differs somewhat in nature and scope from earlier proposals. The first step will be for NPAFC and NASCO to consider this proposal with a view to its endorsement at their 2016 Annual Meetings (NPAFC: 16 -20 May; NASCO: 7 - 10 June). There should be a media release, developed by NASCO and NPAFC jointly, individually or a combination of both, immediately after the endorsement by both organisations.

NASCO and NPAFC have already identified core partners but this will need further consideration. With regard to the Arctic, the NASCO Secretariat should consult with the Arctic Council Secretariat, Tromso, Norway and the NPAFC Secretariat should consult relevant agencies. The NASCO Secretariat should consult the EU and the Russian Federation about possible involvement from the Baltic.

It is recognised that there is very limited time in which to prepare for the IYS if the focal year is to be held in 2018, depending on whether or not the proposal is acceptable to both organisations at their annual meetings. If further work is required before adoption of the proposal, then 2019 might be a more realistic option for the focal year (although the launch symposium might still be scheduled for the last quarter of 2018).

If the IYS is endorsed at the 2016 annual meetings of NPAFC and NASCO, there will be a need to appoint representatives to serve on the Coordinating Committee, the regional Steering Committees and the Symposium Steering Committee and for these committees to start work in the autumn of 2016. There is urgency about this if the IYS focal year and symposium are to be held in 2018. The tasks and composition of these Committees might be as follows:

Coordinating Committee

Activities: As detailed in section 6 above and such other tasks as may be identified by the lead organisations.

Composition: Not more than four appointed representative from each lead organisation, including a representative of the Secretariats of each lead organisation. The Committee should appoint one Co-chairperson from among the representatives of each of the two lead organizations. It would be desirable to have both managers and scientists involved and ideally representatives with experience of outreach initiatives. Additional expertise could be co-opted to the Coordinating Committee as required depending on the nature and scope of the IYS.

Symposium Steering Committee

Activities: Plan for, organise and run the international IYS symposium to launch the IYS. This will involve: agreeing on dates and venue; developing objectives and the programme, including inviting keynote speakers and soliciting contributed papers; establishing a web page for registrations; seeking sponsors and supporters; dealing with all financial matters; and making arrangements for publication of the proceedings (in this regard ICES has indicated that a symposium issue of the ICES Journal of Marine Science may be an option). It is envisaged that a joint symposium account will be needed and that depending on the venue of the symposium this be held by either NPAFC or NASCO.

Composition: Not more than three representatives from each lead organisation, including one representative of the Secretariats of each lead organisation, and one representatives from any co-convening organisation. It would be desirable to have both managers and scientists involved with subject matter representatives for each research theme. Additional expertise could be co-opted to the Steering Committee as required depending on the nature and scope of the IYS.

Regional Steering Committees

Activities: As detailed in section 6 above and such other tasks as may be identified by the lead organisations.

Composition: One representative from each Party from the lead organisation, a representative of the Secretariat from the lead organisation and invited representatives from core partners. It would be desirable to have both managers and scientists involved and ideally representatives with experience of outreach initiatives and additional experts, as needed, to support IYS functions

Proposed IYS Governance Model

