

IYS(16)2

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 representatives 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

