

Appendix F

Summary Description of the International Year of the Salmon (IYS) as proposed by the North Pacific Anadromous Fish Commission

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Background

The North Pacific Anadromous Fish Commission (NPAFC) has endorsed in principle the concept of an International Year of the Salmon (IYS) initiative. At their May 2014 annual meeting the Commission formed a Study Group on International Year of the Salmon (IYS-SG) to scope the initiative. The Study Group convened a Scoping Workshop (February 17–18, 2015) in Vancouver, Canada with members of the IYS-SG and invited scientific experts from the member countries and developed a report describing the IYS in more detail with particular focus on the scientific rationale.

At the 2015 Annual Meeting the report was accepted by the Commission and a formal NPAFC Working Group established to continue the scoping and implementation of the IYS. The Working Group received Can \$50K to conduct a Second Scoping Meeting for the IYS with core partners to refine the approach. The expected outcomes are to include a more detailed scheme for the research, international governance of the IYS and a business plan. What follows is a current description of the IYS initiative.

Concept of the International Year of the Salmon

The International Year of the Salmon is an intensive burst of internationally coordinated, interdisciplinary, stimulating scientific research focused on salmon, and their relation to people. 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.

The ability to provide timely advice to resource managers and society in general is not adequate to meet the frequency and intensity of environmental change we are experiencing. The current pace of research is too slow in the face of this change and it requires this burst of activity to develop new tools, a coordinated approach to their development and application and field observations to close information gaps.

Scope of the IYS

The “salmon” of the IYS are the anadromous members of the sub-family Salmoninae, which includes the salmon, trout, and charrs, but excludes the whitefishes and graylings. Geographically the scope is the Salmosphere – Pacific, Arctic, and Atlantic Ocean. Research in the southern hemisphere as it pertains to

salmon research in the northern hemisphere will be considered. Farmed and wild salmon interactions are to be considered.

The IYS will support research under five broad scientific themes:

1. Status of Salmon: to understand the present status of salmon and their environment.
2. Salmon in a changing salmosphere²: 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.
3. New Frontiers: to develop new technologies and analytical methods to advance salmon science and to explore the uncharted regions of the salmosphere.
6. Human Dimension: to investigate the cultural, social, and economic elements that depend upon sustainable salmon populations.
7. Information Systems: to develop an integrated archive of accessible electronic data collected during the IYS and tools to support future research.

Examples of studies include:

- Winter distribution in the first and second summers in the open ocean
- Limitations of productivity in the open ocean
- Comparative studies across the salmosphere to understand what is driving variability
- Application of climate forcing models up to higher trophic levels and salmon to project changes in the ecosystem and salmon
- Application of new tagging technology to understand salmon migrations
- Application of genomic technologies to understand the factors affecting salmon
- The role of salmon in food security
- The impact of salmon distributional changes on communities and fishing sectors.

Timeline

A two-year period of fund-raising, preparation and planning (2015 and 2016) will be followed by an intensive two-year field study phase (2018 and 2019) and three subsequent years of analysis, major symposia, and publication (2020 through 2022).

Funding and Partnership

The IYS seeks to generate funding support from government, academia, business/industry and non-governmental organizations. There are potential partnerships and support from associations of harvesters, foundations with interests in fish conservation, and non-governmental organizations which need fresh ideas for their conservation activities. The North Atlantic Salmon Conservation Organization (NASCO),

2 The current and future geographic range of salmon in the Subarctic and Arctic.

an international Commission with government and extensive NGO participation from Canada, US and the European Union has committed to engaging with the NPAFC to develop its role as a partner in the IYS.

Next Steps

The NPAFC Secretariat will determine the core membership of partners in the IYS by communicating with relevant regional organizations.

The Working Group on IYS will conduct a Second Scoping Meeting for the IYS in early 2016 with core partners to refine the approach including a more detailed scheme for the research, international governance of the IYS and a business plan are the expected outcomes.