

Report on Joint NPFC-PICES activities for SC-08

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Background

The North Pacific Marine Science Organization (PICES) and the NPFC are both intergovernmental organizations which have several member countries in common and an overlapping geographic scope. PICES is a scientific organization that fosters multi-national, collaborative and trans-disciplinary science to advance the understanding of North Pacific ecosystems, and works with partner organizations to address shared priorities for scientific advancement.

Both organizations endorsed a *Framework for Enhanced Scientific Collaboration in the North Pacific* in October 2019, following the work of a joint Study Group which met over a year to draft the Framework. The full document can be found here: [PICES NPFC Framework](#)

The Framework identified three major areas of mutual interest that were to be a focus during the first 5 years, to 2024: (i) support for stock assessment for priority species (ii) vulnerable marine ecosystems and (iii) ecosystem approach to fisheries. Mechanisms were identified to facilitate the cooperation, such as NPFC co-sponsorship of workshops and themed sessions at PICES meetings, participation in PICES working groups and reciprocal representation at each organization's annual meetings.

This report summarizes recent and upcoming planned joint activities.

1. Working Group on Small Pelagic Fish

PICES and ICES formed a joint [Working Group on Small Pelagic Fish](#) (WG 43) in 2019, and NPFC nominated two representatives, Dr. Toshihide Kitakado and Dr. Oleg Katugin to the WG. Owing to the COVID-19 pandemic the WG life was extended to PICES-2023 to enable it to complete the products of final term of reference, the joint ICES/PICES symposium on SPF, postponed until November 7-11, 2022 in Lisbon, Portugal, with a theme of "Small Pelagic Fish: New Frontiers in Science for Sustainable Management", SPF-2022. NPFC made a contribution of US\$15,000 to the symposium and was represented on the Steering Committee by Dr. Toshihide Kitakado and at the Symposium by Dr. Zavolokin, the NPFC Science Manager. The Symposium was highly successful with 288 participants from 39 countries giving 278 presentations, some of which will contribute to two journal special issues which are underway; a Special Issue of Canadian Journal of Fisheries and Aquatic Sciences (CJFAS) and to a Theme Section of Marine Ecology Progress Series (MEPS). PICES is very grateful for the contributions of the NPFC.

The PICES-2022 annual meeting took place in Busan in September 2022. The NPFC co-sponsored a WG43 topic session, "*S5-Environmental variability and small pelagic fishes in the North Pacific: exploring mechanistic and pragmatic methods for integrating ecosystem considerations into assessment and*

management". The session comprised 12 talks (two invited and ten contributed) and two posters in the poster session (full details can be found here [PICES-2022-Sessions.pdf](#)).

The WG will hold a workshop in February, 2024 to: (1) review the work done by WG Task Forces (TF on Ecological Process Knowledge, TF on Translating Process Knowledge, and TF on Social-Ecological Approaches) and to synthesize the outcomes of their activities; (2) to initiate the development of a high-impact manuscript that describes the outputs of the first phase of the WG, including papers from the Small Pelagic Fish Symposium (SPF-2022); and (3) to discuss the scope, potential scientific program and logistics for the next SPF symposium to be convened in Mexico (SPF-2026).

2. Working Group on the Ecology of Seamounts

In 2020 PICES formed a [Working Group on the Ecology of Seamounts](#) (WG47) and even though NPFC is not formally represented in the WG, some NPFC scientists are involved in its work including the Chair of the NPFC Scientific Committee (Dr Janelle Curtis) who co-chairs WG 47.

NPFC Scientific Committee members co-convened a hybrid workshop at PICES-2022 with members of WG47 on "*Distributions of pelagic, demersal and benthic species associated with seamounts in the North Pacific Ocean and factors influencing their distributions*". A full report can be found in [PICES-Press-2023-Vol31No1.pdf](#)

At PICES-2023 in Seattle, USA, NPFC co-sponsored a topic session, "S14: BIO Topic Session Seamount biodiversity: vulnerable marine ecosystems (VMEs) and species associated with seamounts in the North Pacific Ocean" with 14 talks (1 invited and 13 contributed) and 3 posters.

The NPFC and PICES agreed to hold a joint international course/workshop on Vulnerable Marine Ecosystem (VME) indicator taxa identification, and financial contributions of US\$15,000 from each organization have been approved. The course is aimed at capacity building and sharing knowledge on the identification of coral species in the North Pacific. It will include both theory and practice such as lectures on the taxonomy, physiology and geographical distribution of the VME indicator taxa and training on the identification of coral specimens. The course was originally scheduled for 2020 but was postponed because of the covid-19 pandemic and will be most effective if it can be held fully in-person. The date is yet to be finalized.

3. The BECI (Basin-scale Events to Coastal Impacts) project

PICES and the North Pacific Anadromous Fish Commission (NPAFC) were partners in developing the "Basin-scale Events to Coastal Impacts: An ocean intelligence system for fish and people (BECI)" proposal which was endorsed as an UNDOS project in early October 2021. Since then, the focus has been on developing partnerships and commitments with relevant organizations and with the science community to identify the elements of a science and implementation plan.

With in-kind and financial support from a number of organizations, including DFO-Canada, NOAA-USA, NPAFC, the Tula Foundation and others, the BECI coordinating team convened a science plan development workshop in March 2023. Over 25 people from both sides of the north Pacific participated in-person and online for several days to collaborate and draft the components of a science plan. The intent was to link state of the art climate and oceanographic models to fisheries management in the NE



Pacific which could be used to seek funding support for BECI.

A funding announcement to set up an initial BECI project office will be made in late-November, but at the time of writing cannot be confirmed. Furthermore, a Science Director to lead the development and implementation of BECI has been sought and is also expected to be announced in the near future.

At SC-07, NPFC expressed its support for the development and implementation of the BECI project in line with the NPFC-PICES Framework for Enhanced Scientific Collaboration.

4. Representation at Annual Meetings

Representatives of the NPFC participated in PICES-2022 and PICES-2023 attending business meetings of the Science Board, Biological Oceanography Committee (BIO), Fishery Science Committee (FIS) and some business meetings of PICES working groups (such as WGs 43 and 47). Written reports were also provided to PICES Governing Council.

The Executive Secretary of PICES attended the NPFC's Scientific Committee meeting in December 2022 and 2023, also giving a presentation on joint activities between the organizations.

The next PICES annual meeting, PICES-2024, will be held in Honolulu, USA from October 26 to November 1, 2024 and NPFC members are invited to participate. The schedule of sessions will be available shortly.