



North Pacific Fisheries Commission

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## Report on joint PICES-ICES-FAO small pelagic fish (SPF) symposium

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**Abstract:** In accordance with the decision of the Commission, NPFC co-sponsored the PICES-ICES-FAO Small Pelagic Fish symposium. The symposium was held in Lisbon, Portugal from 7-11 November 2022. The NPFC was represented by Dr. Toshihide Kitakado (SSC PS Chair, Steering Committee of the SPF symposium) and Dr. Alex Zavolokin (NPFC Science Manager).

### PICES-ICES-FAO Symposium on “Small Pelagic Fish: New Frontiers in Science for Sustainable Management”

#### *Background*

At its 5<sup>th</sup> meeting in November 2020, the SC supported PICES’s proposal for a symposium on small pelagic fish (SPF symposium) and recommended that the Commission provide financial support of 15,000 US dollars for the symposium, as well as travel support for three members of the SC or its subsidiary bodies to attend the symposium, if needed. This recommendation was endorsed by the Commission in February 2021 ([COM06 meeting report](#)). The SPF symposium was originally planned for November 2021 but was postponed to 2022 due to the covid-19 pandemic.

**Dates and place:** 7-11 November 2022, Calouste Gulbenkian Foundation, Lisbon, Portugal.

**Participation:** The symposium had 288 attendees from 39 countries and 6 continents. It was nearly gender-balanced – 47% she/her and 53% he/him. In total, 44% of the attendees were early career scientists. The total number of presentations was 278 (194 talks and 84 posters).

The NPFC was represented by Dr. Toshihide Kitakado (SSC PS Chair, Steering Committee of the SPF symposium) and Dr. Alex Zavolokin (NPFC Science Manager). Additionally, several NPFC scientists participated in the symposium.

#### **Scope and scientific program**

Small pelagic fish (SPF) account for more than 30% by weight of the total landings of capture fisheries around the world. Substantial scientific progress continues to be made on understanding

the drivers and dynamics of SPF in ecosystems across a range of spatial and temporal scales. The exchange of information and ideas drawn from comparing populations across the globe can be particularly insightful as we seek to improve management strategies.

The international symposium on “Small Pelagic Fish: New Frontiers in Science for Sustainable Management” highlighted the state-of-the-art in these and other topics related to the ecology and sustainable management of SPF. The symposium complements collaborative research conducted by the joint ICES/PICES Working Group on Small Pelagic Fish (with participants from NPFC) and is relevant to the goals of the UN Decade of Ocean Science for Sustainable Development, particularly “to bolster scientific research for a sustainably harvested ocean ensuring the provision of food supply.”

The SPF symposium had 4 plenary sessions, 7 concurrent topic sessions and 6 concurrent workshops. Morning plenary sessions provided overarching keynote presentations and introduced topics for the concurrent sessions.

#### Topic Sessions

- S1: Trophodynamic Processes
- S2: Life Cycle Closure: Advances in Process Understanding
- S3: Drivers and Consequences of Phenological Shifts
- S4: Responses to Climate Variability and Change at Decadal to Centennial Time Scales
- S5: Progress in Pelagic Surveys - from Biomass Estimates of Small Pelagic Fish to Monitoring Ecosystems
- S6: Reconciling Ecological Roles and Harvest Goals: Development and Testing Management Strategies to Safeguard Marine Ecosystem Services
- S7: Advancing Social-ecological Analyses and Sustainable Policies for Dependent Human Communities

#### Workshops

- W1: Application of Genetics to Small Pelagic Fish
- W2: The Devil’s in the Details of Using Species Distribution Models to Inform Multispecies and Ecosystem Models
- W3: Small Pelagics for Whom? Challenges and Opportunities for the Equitable Distribution of Nutritional Benefits
- W4: Evaluating Inter-Sectoral Tradeoffs and Community-Level Response to Spatio-Temporal Changes in Forage Distribution and Abundance
- W5: Recent Advances in the Daily Egg Production Method (DEPM): Challenges and Opportunities

- W6: Small Pelagic Fish Reproductive Resilience

For more information about the presentations given at the symposium, please refer to the [Book of abstracts](#).

NPFC's participation in and co-sponsorship of the SPF symposium was done in accordance with the *Framework for Enhanced Scientific Collaboration in the North Pacific* developed by NPFC and PICES in 2019. The Framework identified several areas of joint interest to PICES and the NPFC, and the SPF symposium contributes to two of them: support for stock assessment for priority species and ecosystem approach to fisheries.