

Attendees

650 Total Participants46 % Early Career (ECOP)

Presentations

311 Oral Presentations

173 Poster Presentations

PICES-2025 Annual Meeting Briefing

Summary

The PICES-2025 Annual Meeting in Yokohama, Japan on 8–14 November 2025 brought together over 600 participants, the largest in PICES history.

Under the theme "Innovative applications and approaches to foster resilience in North Pacific Ecosys-



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tems" the meeting emphasized updating traditional scientific approaches to address rapid environmental change. It highlighted interdisciplinary collaboration, actionable science, integration of local and traditional knowledge, stakeholder engagement, capacity building for Early Career Ocean Professionals (ECOPs), and co-production of knowledge – all to support sustainable management and climate resilience in the North Pacific.

Events

Town Hall

Science Board Symposium

16 Topic Sessions

11 Workshops

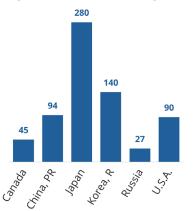
24 Business Meetings

5 Other Events

Representation

29 Countries Represented17 Observer Organizations

Number of Participants by Member Country



PICES-2025 Website:

https://meetings.pices.int/meetings/annual/2025/pices/scope

Town Hall

The Town Hall event provided an important update on PICES' evolution, particularly in context of the 2024 External Review recommendations.

In the past year, the newly formed Study Group on External Review Report Recommendations (SG-ERRR), made of a subset of Governing Council, started defining PICES new direction. The group will consult with PICES Members and Governing Bodies to identify shared needs and priorities.



Town Hall Panelists: Andrew Thomson (left), Sukyung Kang (middle), and Cisco Werner (right).

The SG-ERRR is drafting a road map that identifies actions needed in priority areas: PICES role, structure, Integrative Science Program (ISP) development, administration, and capacity development. As the <u>FUTURE Scientific Program</u> concludes, ideas for the next ISP shift toward responsive actions to environmental change. Discussions covered co-producing science, improving communication, and timely science delivery to match environmental changes. Challenges to overcome include diverse governance, consistent funding, balancing detailed science with quick results, and overcoming data sharing barriers.

Changing Ecosystem Structure Under Global Climate Change

PICES-2025's largest session explored marine ecosystem changes from climate change and human activity. Presentations detailed ocean shifts, including more frequent and intense marine heatwaves, and their impacts on ecosystems, fisheries, and coastal communities. East Asian marginal seas are among the most affected—experiencing record temperatures during the 2023 marine heatwave. These marine heatwaves are becoming more frequent and longer lasting.

Speakers discussed advances in monitoring methods to better detect ecosystem change. Long-term observations, environmental DNA (eDNA), and continuous plankton recorder surveys expand scientist's capacity to monitor species distributions, detect harmful algal blooms, and identify early warnings of ecological stress. Ecosystem modelling revealed structural changes to the marine food web.

A common message that reoccurred throughout the session was the importance of collecting continuous time-series observations and accurately defining ecological baselines. This information is vital for detecting long-term trends, improving predictive models, and supporting adaptive management to sustain marine ecosystems and their dependent communities.



Mentor and Mentee team: Vera Trainer (right) and Shun (left)

PICES Mentorship Program

A mentorship program has been a long-standing request within PICES and is globally recognized as an important need for Early Career Ocean Professionals (ECOPs). PICES values the active involvement of ECOPs, who bring fresh ideas, new skills, and connections across countries and disciplines. In turn, ECOPs gain valuable experience, professional growth, and networking opportunities that can lead to future collaborations, funding, and employment.

Now in its third year, the PICES Mentorship

Program welcomes students, ECOPs, and scientists at all career stages who seek guidance on navigating PICES Annual Meetings and building professional networks. The program provides support before, during, and after the meeting to help mentees make the most of their experience.

At PICES-2025, 17 mentor-mentee pairs took part in the program, reflecting steady interest from early career participants. In the coming years, PICES aims to strengthen the program by encouraging greater participation from experienced researchers, who play a vital role in guiding and inspiring the next generation.

Engaging with Local and Traditional Knowledge Holders in Pacific Small Island Developing States

This one-day workshop, co-sponsored by the International Council for the Exploration of the Sea (ICES), Asia-Pacific Network for Global Change Research (APN), Ocean Policy Research Institute OPRI, and Sustainability of Marine Ecosystems Through Global Knowledge Networks (SmartNet), was the first of its kind to highlight local and traditional knowledge and culture in ocean science.

Workshop activities focused on defining and implementing co-design. Participants identified key challenges: funding/institutional support, limited resources, and power imbalances. They proposed solutions from the perspective of communities, researchers, governments, and private sector. A draft white paper will be a key outcome, outlining co-design best practices, emphasizing trust, respectful engagement, and aligning science with community priorities.

This workshop is a crucial first step in integrating indigenous knowledge into ocean science. Convenors plan to weave indigenous knowledge throughout future PICES Meetings and integrate co-design frameworks into research.

North Pacific Marine Science Organization (PICES)

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Participant Comments

"Annual meetings provide irreplaceable opportunity for exchange of key issues for each Committee or different disciplines."

Professor Hiroaki Saito,
 Center for International Research Collaboration,
 University of Tokyo

"My supervisor encouraged me to present at PICES this year and I was especially grateful for the supportive atmosphere created by the researchers during my presentation. The side events also provided great opportunities to connect with other participants."

- Jia Luo, First time ECOP attendee, Chinese Academy of Sciences

"The continued advancement of marine science through the PICES activities, and the strengthening of collaboration among member nations, are of increasing importance."

- Hitoshi Fujita, Director-General of the Fisheries Agency of Japan

"I came to participate in PICES - ICES collaborative projects focus on the Arctic and to strengthen relationships with PICES and other organizations and groups present."

- Inigo Martinez, ICES Advice Department Professional Officer

Celebrating a Decade of Collaboration in the Arctic Ocean

This year marked the 10th anniversary of the collaborative <u>Working Group on the Integrated Ecosystem Assessment of the Central Arctic Ocean (WGICA).</u> This joint <u>ICES</u>, <u>PICES</u>, and <u>PAME</u> effort provides scientific advice on the Central Arctic Ocean.

WGICA has published two key ecosystem reports: Part 1 - Description of the ecosystem (2022) established the region's physical and biological baseline. Part 2 - Description of human activities, its pressures, and vulnerability of the ecosystem (2025) highlights climate change as the dominant force in the region.

The Central Arctic Ocean remains one of the least accessible and least understood marine ecosystems, despite its vital role in global ocean circulation and climate regulation.