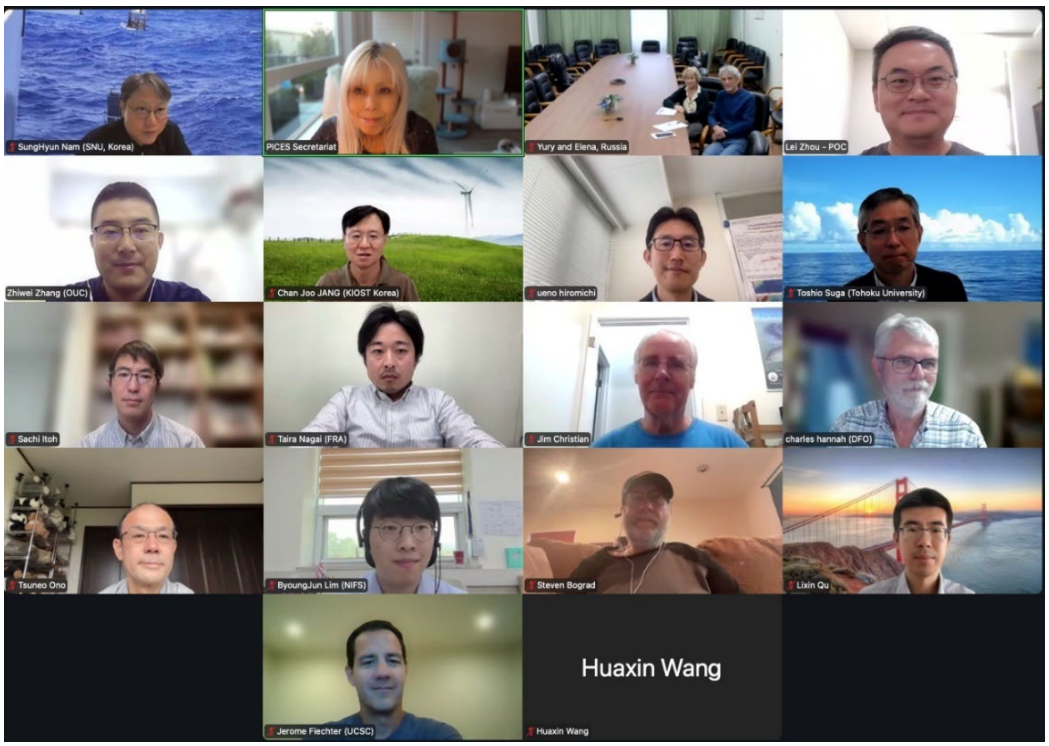
2025 Report of Physical Oceanography and Climate Committee (POC)

DAY 1: Online Business Meeting
October 15th, 9:00am - 10:30am, Beijing time (UTC+8)
Zoom link: https://us02web.zoom.us/j/5130095105?omn=87592580934



Attendees:
Lei Zhou (China, POC Chair), Jennifer Jackson (Canada, POC Vice-Chair), Sanae Chiba (PICES Secretariat), SungHyun Nam (Korea, POC), Yury Zuenko (Russia, POC), Elena Ustinova (Russia, POC), Hiromichi Ueno (Japan, POC), Chan Joo Jang (Korea, POC), Toshio Suga (Argo), Sachi Itoh (Japan, POC), Taira Nagai (Japan, POC), Charles Hannah (Canada, POC), Tsuneo Ono (Japan, S-CC), Byoung-Jun Lim (Korea, observer), Lixin Qu (China, observer), Jerome Fiechter (USA, POC), Zhiwei Zhang (China, observer), Fangli Qiao (China, POC), James Christian (Canada, POC), Steven Bograd (USA, POC), Huaxin Wang (China, observer), Li Li (SOLAS)

AGENDA ITEM 1
Welcome, self-introduction, and Icebreak

AGENDA ITEM 2
AP-CREAMS Report (SungHyun Nam)

- Propose to extend the geographic area, which was discussed in SB; POC support his proposal
- Provide more opportunities to ECOPs
- Three meetings this year
- Join S2 in PICES2025
- Cooperate with organizations outside PICES
- Fangli Qiao suggested to focus more on data collection and sharing

AGENDA ITEM 3

S-CC Report (Tsuneo Ono)

- Support a new WG proposal led by Prof. Masahiko Fujii
- S-CC members work with ISO
- One on-site workshop
- nCDR workshop in PICES2025
- Will submit workshop/session proposal to PICES2026
- Li Li: SOLAS has mCDR projects and postdoc programs, which can be shared with S-CC.

AGENDA ITEM 4

Proposal to new WG of Oceanic Finescale Processes: Impacts and Parameterizations (Zhiwei Zhang)

- Fine-scale processes in the ocean should be parameterized
- Have impacts on physical oceanography, BGC, and climate
- Good connections to previous WGs
- The plan should be specified further
- Jim: what plan to recruit people with different backgrounds

AGENDA ITEM 5

Requests from and to existing EGs

- No requests at that stage

AGENDA ITEM 6

Heads-up: Election of new Committee Chairs

- The decision will be made in the in-person meeting in Yokohama.

AGENDA ITEM 7

Other business and adjourn

DAY 2: Hybrid Business Meeting
November 9th, 18:00pm - 20:30pm, Yokohama Time
In person: Workpia Yokohama, Room 201(2F)
Zoom link: https://us02web.zoom.us/j/83000711539

Attendees:
Lei Zhou (China, POC Chair), Byoung-Jun Lim (Korea, observer), SungHyun Nam (Korea, POC), Gwang Ho Seo (Korea, observer), Hiromichi Ueno (Japan, POC), Yury Zuenko (Russia, POC), Toshio Suga (Argo), Saranya JS (Korea, observer), Seungsoo Kim (Korea, observer), Sachihiko Itoh (Japan, POC), Kwang-Young Jeong (Korea, observer), Lixin Qu (China, observer), Julie Dinasquet (SOLAS), James Christian (Canada, POC), Dongwha Sohn (S-CCME), Anne Hollowed (S-CCME), Jerome Fiechter (USA, POC), Bo Qiu (WG50), Steven Bograd (USA, POC), Yisen Zhong (WG50), Masahiko Fujii (Japan, observer), Elena Ustinova (Russia, POC, online), Taira Nagai (Japan, POC, online)

AGENDA ITEM 8
Welcome and introductions remarks and agenda updates

AGENDA ITEM 9
Membership updates

- No membership updates
- Joon-Soo Lee may propose to update a Korean member

AGENDA ITEM 10
S-CCME Report (Dongwha Sohn and Anne Hollowed)

- S-CCME brings together members from multiple countries including Canada, China, and Japan.
- In 2025, it achieved remarkable results in three key areas:
  - personnel adjustments (adding new member Vivitskaia Tulloch, appointing Dongwha Sohn and Bryony Townhill as new co-chairs, and requesting a one-year extension of Chair Kirstin Holsman's term)
  - core activities (advancing the integration of climate information into Ecosystem Overviews, co-organizing themed sessions at ICES ASC 2025, etc.)
  - planning progress (accomplishing Phase IV objectives, formulating the 2025-2030 Phase V Implementation Plan, and clarifying updated goals and the direction of "actionable advice").
- It continued to conduct cross-organizational collaborations (e.g., with UNDOS, IPCC, etc.) and ensured work advancement through mechanisms such as monthly meetings and spring workshops, providing scientific support for understanding and addressing the impacts of climate change on marine ecosystems.
- Propose a 1-2 day S-CCME Spring workshop: “S-CCME Spring Workshop: Towards actionable climate change advice” to PICES2026.
- The following requests are approved by POC:
  - Extension of Dr. Holsman chair for +1 yr (nomination for replacement in 2026)
  - Support Phase 5 Implementation Plan
  - Travel funding for 2 S-CCME members to the Spring 2026 workshop

AGENDA ITEM 11

WG50 Report (Yisen Zhong)

- The last year of this WG
- Finish all planned activities
- Working on a review paper
- Preparing the final report

AGENDA ITEM 12

Publications updates

- Any additional publications
- No updates

AGENDA ITEM 13

More discussion on the proposal to a new WG of Oceanic Finescale Processes: Impacts and Parameterizations (Bo Qiu)

- Proposal looks nice, no more series concerns
- Jim suggested to broaden the topic and to invite Canadian members

AGENDA ITEM 14

Proposal to new WG of Comprehensive understanding of ocean acidification in the North Pacific (Masahiko Fujii)

- Proposal led by co-chairs from Japan, China, the USA, and Korea, with suggested members from multiple North Pacific countries.
- Ocean acidification (OA) and its biological impacts occur across diverse spatial and temporal scales.
- The western North Pacific lacks a regional hub in the Global Ocean Acidification Observation Network (GOA-ON), creating a critical gap.
- The WG aligns with the PICES Strategic Plan by fostering collaboration with organizations such as GOA-ON, IMBeR, and ICES.

AGENDA ITEM 15

Argo Report (Toshio Suga)

- On behalf of the International Argo Steering Team
- Summarizing Argo's 20+ years of progress, current gaps, the OneArgo expansion plan, implementation status, new applications, and funding needs.
- Critical unmet needs include monitoring the deep ocean (>2000m), ice-covered oceans, and ocean environmental changes (e.g., de-oxygenation, acidification).
- The expanded OneArgo design targets 4700 floats, doubling core float density (2500 core floats) and adding 1200 deep floats and 1000 BioGeoChemical (BGC) floats. It covers full global depth (including polar regions) and integrates multidisciplinary measurements (bio-optics, oxygen, pH, nitrate) through three core missions: BGC, Polar, and Deep.
- OneArgo is technically and logistically feasible, with clear cost estimates (US$100M/year globally, 3×the original Argo budget) and established partnerships.
- Progress relies on short-term projects; urgent expanded funding is needed to realize OneArgo by 2030, requiring advocacy from the PICES community.

AGENDA ITEM 16

SOLAS Report (Julie Dinasquet)

- Update recent SOLAS activities
- GHG in Theme 1, air-sea interface and fluxes in Theme 2 are closely related to POC
- Introductions to SOLAS 3.0, the scientific structure of SOLAS for 2026-2035
- POC WG propose projects to SOLAS summer school
- Strength the link between SOLAS and PICES

AGENDA ITEM 17

Upcoming meetings relevant to POC

- No upcoming meeting

AGENDA ITEM 18

Requests from and to existing EGs

- Requests from S-CCME, see AGENDA ITEM 10

AGENDA ITEM 19

POC Sessions at PICES 2025 (*Agenda Endnote*)

AGENDA ITEM 20

POC Best Presentation and Poster Awards, ECOP judges for POC

- POC-P (poster) – Lei Zhou, Sachihiko Itoh
- POC-P (oral) – Lei Zhou, Sachihiko Itoh
- S02 (poster, 15) – Jerome Fiechter, Steven Bograd, Hiromichi Ueno
- S02 (oral, 30) - Lei Zhou
- S10 (poster) – Yury Zuenko, SungHyun Nam
- S10 (oral) – Lei Zhou
- S16 (poster) – Yury Zuenko, SungHyun Nam
- S16 (oral) – James Christian

AGENDA ITEM 21

Election of new Committee Chair

- Lei Zhou was elected the Chair for the second term

AGENDA ITEM 22

Other business and adjourn

POC Endnote

1. POC Sessions and Workshops at PICES 2025

S2: BIO/FIS/HD/ POC/MONITOR/FUTURE Topic Session Changing Ecosystem Structure Under Global Climate Change: Monitoring, Detecting, Modelling, and Socio-Ecological Impacts Convenors: Shin-ichi Ito (Japan), corresponding Jennifer L. Boldt (Canada) Julie Keister (USA) Minkyoung Kim (Korea) Vyacheslav B. Lobanov (Russia) Feng Zhou (China) Invited Speakers: Yuki Minegishi (The University of Tokyo, Japan) SungHyun Nam (Seoul National University, Korea)
S3: POC/FUTURE Topic Session Interactions of Variability and Change in the North Pacific Convenors: Michael Jacox (USA), corresponding Allison Cluett (USA) Haruka Nishikawa (Japan) Invited Speakers: Ileana Fenwick (University of North Carolina at Chapel Hill, USA)
S5: HD/POC/MONITOR/FUTURE Topic Session Climate Extremes and Coastal Impacts in the Pacific Convenors: Antonietta Capotondi (USA), corresponding Shoshiro Minobe (Japan) Saranya JS (Korea) Charles Hannah (Canada) Chan Joo Jang (Korea) Invited Speaker: Shusaku Sugimoto (Tohoku University, Japan) Hyoeun Oh (BS Center for Climate Physics, Korea)
S10: POC/FUTURE Topic Session Multiscale Physical, Biological and Ecosystem Dynamics Under Conventional and Carbon-Dioxide Removal Based Climate Scenarios Convenors: Takeyoshi Nagai (Japan), corresponding Zhiwei Zhang (China) Mark Wells (USA) Tatjana Ross (Canada) Lixin Qu (China) Hiroaki Saito (Japan) Invited Speakers: Annalisa Bracco (Program Ocean Science & Engineering, Georgia Institute of Technology, USA)

S16: POC Topic Session
Radiocarbon Studies in the North Pacific and its Marginal Seas

Convenors:
Minkyoung Kim (Korea), corresponding
Fang Ling (China)
Baozhi Lin (China)
Shigeyoshi Otosaka (Japan)

Invited Speakers:
Yusuke Yokoyama (The University of Tokyo, Japan)

W1: FIS/HD/ POC/MONITOR/TCODE/TCODE Workshop
Climate-Ready Fisheries Management: Reviewing Effective Strategies for Developing Decision Support Tools

Convenors:
Steven Bograd (USA), corresponding
Kirstin Holsman (USA)
Mitsutaku Makino (Japan)
Hanna Na (Korea)
Kathryn Berry (Canada)
Viv Tulloch (Canada)
Erin Satterthwaite (USA)
David Reid (Denmark)

Invited Speakers:
Beth Fulton (CSIRO, Australia)

W4: BIO/POC Workshop
Building Framework for Cross-Community Conversation Between Natural Carbon Cycles and Marine Carbon Dioxide Removal

Convenors:
Tsuneo Ono (Japan), corresponding
Alexander Kozyr (USA)
James Christian (Canada)
Kitack Lee (Korea)

Invited Speakers:
Yanli Lei (Institute of Oceanology (ISO), CAS, China)
Masao Ishii (Meteolorogical Research Institute, Japan)
Kenta Watanabe (Port and Airport Research Institute, Japan)

W5: POC/FUTURE Workshop
Basin-Scale Processes Linking Western and Eastern Pacific Dynamics and Biogeochemistry

Convenors:
Charles Hannah (Canada), corresponding
Fei Chai (China)
Shoshiro Minobe (Japan)
Steven Bograd (USA)
Mercedes Pozo Buil (USA)

W10: POC/TCODE/MONITOR Workshop
An Examination of Shelf Data collected by Moorings and Other Fixed Stations in the North Pacific Ocean

Convenors:
Jennifer Jackson (Canada), corresponding
Alex Harper (USA)
Jack Barth (USA)
Charles Hannah (Canada)
Sung Yong Kim (Korea)
Jae-Hyoung Park (Korea)

Invited Speakers:
Amandine Schaeffer (University of New South Wales, Australia)

2. ECOP Presentations and POC Judges

- Rank the presentation using the provided judge sheet, and submit the information of your Committee's awardees (1 best poster, 1 best oral) to sanae.chiba@pices.int & intern@pices.int by the evening of November 13 (for MEQ, POC, FUTURE, MONITOR) or by morning coffee break time on November 14 (for BIO, FIS and HD) for the preparation of the Award ceremony at the Closing session which start at around 12:15 on November 14.

3. Active POC Experts Groups

- S-CCME: Section on Climate Change Effects on Marine Ecosystems
  Joint PICES/ICES Section on Climate Change Effects on Marine Ecosystems
  (PICES-2011 - PICES-2025), (also reports to BIO and FIS)

- AP-CREAMS: Advisory Panel for a CREAMS/PICES Program in East Asian Marginal Seas
  (PICES-2005 – PICES-2024), (also reports to MONITOR)

- S-CC: Section on Carbon and Climate
  (PICES-2005 – PICES-2027), (also reports to BIO)

- WG 50: Working Group on Sub-mesoscale Processes and Marine Ecosystems
  (PICES-2021 - PICES-2025)