

Pacific Arctic Group (PAG) 2026 Spring Meeting Report



Friday, March 27, 2026
Aarhus University
Aarhus, Denmark
<http://pag.arcticportal.org/>



The Pacific Arctic Group (PAG) is a group of institutes and individuals having a Pacific perspective on Arctic science. Organized under the International Arctic Science Committee (IASC), the PAG has as its mission to serve as a Pacific Arctic regional partnership to plan, coordinate, and collaborate on science activities of mutual interest. For the purpose, we have Spring and Fall meetings. The Spring PAG meeting is held during Arctic Science Summit Week and is focused on business issues and an update on research plans for the coming field season. The Fall PAG meeting is hosted at various locations in alternating PAG countries after the field season and is focused on review of accomplishments during the previous summer and outlooks for the future. The **PAG 2026 Spring Meeting** was hosted at Aarhus University in Aarhus, Denmark, and reported on plans for field activities in 2026 and beyond, highlighted science results from PAG endorsed projects (DBO, PACEO, CAO), joint research activities, interactions with other organizations and projects, PAG organizational issues and other business issues.



Welcome and overview



2026 Pacific Arctic Group Spring Meeting
<http://pag.arcticjournal.org/>



• **March 27, 2026** : 0900-1700 CET

• **Meeting site:**
Conference Center
Aarhus University, Aarhus, Denmark

• **Room:** Mogens Zieler Stuen

PAG Chair : Eun Jin Yang
Secretary : Catherine Lalonde

Division of Ocean & Atmosphere Science,
Korea Polar Research Institute, Republic of Korea



Eun Jin Yang - PAG Chair (KOPRI)

The meeting began with an overview of the Pacific Arctic Group and a review of the agenda for the meeting, including highlights of PAG-endorsed activities, key announcements, and self-introduction of participants.

Country reports



Canadian Arctic Marine Science, 2026
Pacific Arctic Group Spring Meeting
Arctic Science Summit Week, Aarhus, Denmark.
27 March, 2026
Bill Williams, Fisheries and Oceans Canada

Canada – Bill Williams (DFO-MPO)

The presentation provided an overview of ongoing research programs and monitoring efforts in the Canadian Arctic, including the Beaufort Gyre Observing System Study, Canada’s UNCLOS Program, the Kitikmeot Sea Science Study, the Beaufort Shelf Marine Observatories, the Canadian Beaufort Sea - Marine Ecosystem Assessment, and the Barrow Strait Monitoring Program.



Japan – Motoyo Itoh (JAMSTEC) and Hiromichi Ueno (Hokkaido University)

The presentation was structured in three parts and highlighted upcoming Arctic research and training activities. The first part introduced plans for the 2026 Arctic cruise aboard the *Oshoro Maru*. The second part addressed Japan’s research fleet transition, with AR/V *Mirai II* scheduled to begin sea trials in December 2026 and its first scientific cruise in summer 2027.

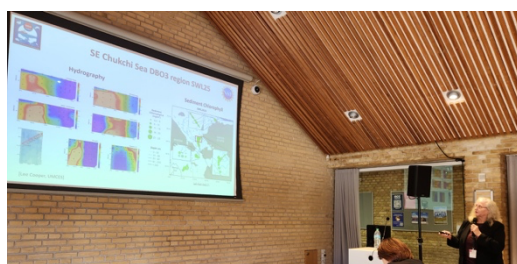
The final part covered recent and upcoming field activities, including a sea ice camp conducted in March 2026.



Korea – Eun Jin Yang (KOPRI)

The presentation outlined upcoming activities aboard the icebreaker RV *Araon* as part of the K-AWARE program during the 2026 expedition. It also highlighted the submission of a proposal for a new Korea Arctic Ocean research initiative, with results expected in July or August. The next-generation, eco-friendly Korea icebreaking research vessel is scheduled to participate to the International Polar Year with an expedition

to the North Pole in 2030.



USA - Jackie Grebmeier (UMCES)

The presentation provided an overview of current U.S. Arctic research activities and priorities, along with key scientific questions and motivations guiding ongoing observations in the Pacific Arctic region. Information was provided regarding the upcoming 2026 field season of the research vessels R/V *Sikuliaq*, CCGS *Sir Wilfrid Laurier*, and USCGC *Healy*.



China - Ruibo Lei (PRIC)

The presentation outlined the Recording the Environment and Ecosystem Changes in the Central Arctic Ocean (RecCAO) project, highlighting the key scientific issue of rapid changes in the Arctic Ocean. It also detailed the CHINARE-2026 Arctic Expedition Plan, including conducting ice camps as well as sampling activities over the Chukchi Borderland, Gakkel Ridge and Podvodnikov Basin, as well as providing icebreaking assistance for the TARA polar research station.

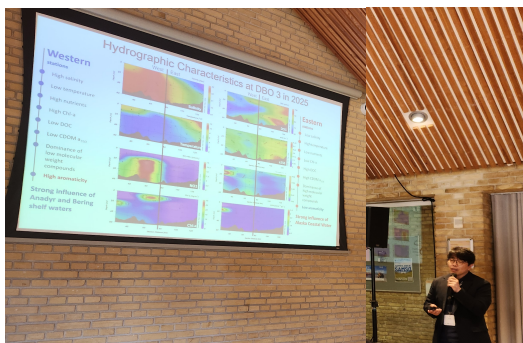
PAG-related joint research activities

Distributed Biological Observatory (DBO)



Pacific DBO activities and 8th DBO Data workshop overview - Jackie Grebmeier (UMCES)

The presentation highlighted recent scientific findings from activities conducted under the Distributed Biological Observatory (DBO) program. Most of these results were also presented during the 8th DBO Data Workshop held in November 2025 in Incheon, Republic of Korea.



KOPRI's Contribution to DBO: Research Progress and Future Plans - Jinyoung Jung (KOPRI)

The presentation highlighted hydrographic observations from the annual surveys on board IBRV *Araon*, including recent results obtained in 2025. It examined variability in key parameters such as salinity, temperature, chlorophyll-a, nitrate, and dissolved organic carbon, along with shifts in bloom dynamics and changes in dissolved organic matter characteristics. The talk concluded with future plans focused

on continued monitoring of biogeochemical parameters.



Atlantic DBO activities and Pan-Arctic DBO activities – Marit Reigstad (UiT)

The presentation highlighted the Atlantic-Arctic Distributed Biological Observatory (A-DBO) as a key part of the Pan-Arctic DBO network, focused on a complex and rapidly changing region between Norway and the North Pole. It emphasized on recent activities including international collaboration, coordinated cruises, and efforts such as management, conservation, and method harmonization.



Baffin Bay/Davis Strait DBO – Craig Lee (UW)

The presentation focuses on building the Davis Strait Gateway Observing System to monitor water exchange between the Arctic and Atlantic. It highlights the expansion of coastal stations, use of autonomous platforms through the Arctic Mobile Observing System to track Pacific summer water, and SOLO-2 float deployments for collecting ocean data.

Updates on interaction with other organizations/projects



Beyond Arctic PASSION – Michael Karcher (AWI)

The presentation outlines the Beyond Arctic PASSION project involving 38 institutions from 15 countries aimed at improving and integrating Arctic observing systems following the Arctic PASSION project. Its main goal is to advance a sustainable, coordinated, and inclusive Arctic Observing System that delivers accessible, interoperable data by combining science, Indigenous and local knowledge, and advanced technologies. The project is structured into six work packages covering governance and sustainability, development of a coordinated Arctic data system, support for decision-making, improvements in marine and cryospheric observations, co-creation of user-focused data products, and outreach and capacity building.



Arctic Ocean 2050 – Bodil Bluhm (UiT)

Arctic Ocean 2050 is a 10-year international research program that builds on earlier Arctic projects to understand ongoing changes in the Central Arctic Ocean and improve prediction, monitoring, and sustainable management. The research program is structured around six main themes: The Arctic Ocean in the World, The Changing Arctic Ocean, Human impact and Sustainable Use, Abrupt and Extreme Events, Advances in Observing and Modelling, and Arctic Ocean Pathways.

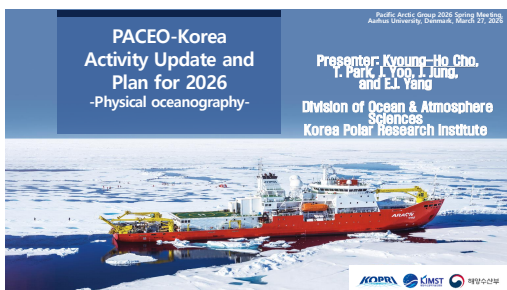


Canada-North Pacific Arctic Workshop – Sung-Ho Kang (KOPRI)

The Canada-North Pacific Arctic Workshop examined rising geopolitical and climate-driven challenges in the Arctic–North Pacific, highlighting risks to infrastructure, supply chains, and security. It emphasized the need for stronger international collaboration, shared data, and integrated observing systems. For PAG, the key takeaway is its position as a platform for coordinated and policy-relevant Arctic monitoring.

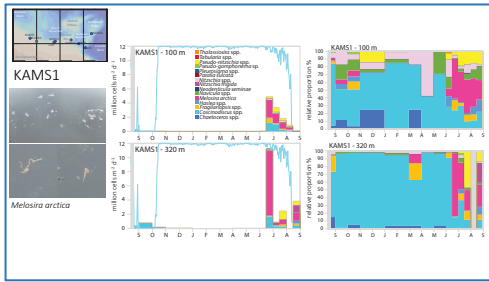
PAG-related joint research activities (continued)

Pacific Arctic Climate Ecosystem Observatory (PACEO)



PACEO-Korea Activity and Plan for 2026 - physical oceanography – Kyoung-Ho Cho (KOPRI)

The presentation summarized the long-term physical oceanography program of Korea aimed at monitoring marine environmental changes linked to Arctic warming, particularly along the Beaufort Gyre extension. Korea conducts annual summer expeditions on board IBRV *Araon* collecting biological, physical, and chemical ocean data, partly through the Korea Arctic Mooring System (KAMS). Observations show a notable shoaling of the Atlantic Water upper boundary in the western Canada Basin since 2017, indicating significant oceanographic change.



Algal fluxes in the Pacific Arctic region – Catherine Lalande (KOPRI)

The presentation showed diatom fluxes measured using moored sediment traps at different sites in the Pacific Arctic region, with a focus on the 2023-2024 deployment period. Combining algal fluxes collected by moored sediment traps deployed by Korea, Japan, USA, and China would allow to better characterize the seasonal progression of the diatom bloom and

export across the Pacific Arctic region.



SST Mean and Variability Changes and Their Impact on Marine Heatwaves in the Arctic Ocean – Joo-Eun Yoon (KOPRI)

This presentation examined how changes in sea surface temperature (SST) and its variability are influencing marine heatwaves (MHWs) across the Arctic Ocean. It highlights that Arctic-wide warming is pervasive, driven by Arctic amplification, but the ocean does not respond uniformly. Instead, marine heatwaves show strong regional differences: ice-covered regions experience increases in both frequency and intensity, while inflow regions mainly see more frequent events.

Central Arctic Ocean (CAO)



Brief updates on the WGICA and CAOFA JPSRM – Shigeto Nishino (NIPR)

The presentation outlined recent progress and future plans of the Working Group on Integrated Ecosystem Assessment for the Central Arctic Ocean (WGICA) in support of the Agreement to Prevent Unregulated High Seas Fisheries in the Central Arctic

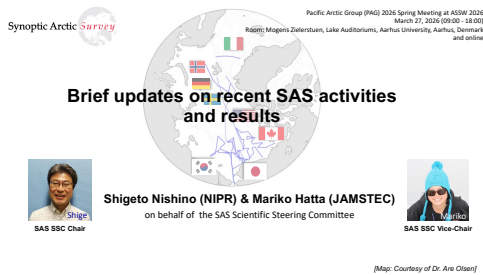
Ocean (CAOFA). For 2026–2028, priorities include integrating Indigenous knowledge, studying vulnerable ecosystems and species, assessing climate change and potential commercial species, and evaluating human pressures and cumulative impacts.



Sustaining the Implementation Progress: Four Years of the CAOFA through Conference of the Parties (2022-2025) – Jihoon Jeong (KOPRI)

The presentation outlined that CAOFA has sustained implementation of its fishing moratorium in the Central Arctic Ocean since 2022, guided by science, ecosystem protection, and Indigenous knowledge. Looking ahead to COP5 in Brussels (2026), priorities are to finalize exploratory fishing rules, complete the vulnerable marine ecosystems framework, continue JPSRM work, and integrate scientific and Indigenous knowledge. Momentum remains strong, ensuring the moratorium period (2021–2037) builds a robust and science-driven governance system.

Synoptic Arctic Survey (SAS)



Brief updates on recent SAS activities and results – Shigeto Nishino (NIPR) and Mariko Hatta (JAMSTEC)

The presentation outlined the Synoptic Arctic Survey (SAS). SAS-I (2020–2022) established a pan-Arctic baseline of hydrography, carbon, and ecosystems. The objective of SAS-II (~2030) is to track decadal changes in the Arctic Ocean by building on the baseline established by SAS-I. This includes repeating key transects and monitoring new regions. Community surveys and

workshops are guiding the development of the SAS-II Science and Implementation Plan.



US SAS activities and plans - Jackie Grebmeier (UMCES) and Carin Ashjian (WHOI)

The presentation highlighted US SAS activities and plans, emphasizing the importance of North Pole transects in filling critical gaps in Arctic Basin coverage. Key findings from SAS-I include: higher nutrients in the Canadian Basin, shelf–basin differences in plankton and benthos abundance, Arctic vs. Atlantic copepod distributions, macrofauna patterns from the

Chukchi Sea to the North Pole, and river-influenced oxygen isotope variations. Looking forward to SAS-II, objectives include continuing shelf-to-basin and inter-basin ecosystem studies, supporting a pan-Arctic synthesis, and engaging the community through workshops, publications, and input from early-career researchers. Planning also involves coordination with funding agencies for the 2030 field campaign, with ongoing efforts to disseminate SAS-I results and develop the SAS-II Science and Implementation Plan.



Updates from the SAS Early Career Researchers - Clare Gaffey (OSU) and Christina Goethel (UMCES)

The presentation provided updates from the Synoptic Arctic Survey Early Career Researchers (SAS ECR) group, a growing network of early career scientists involved in SAS-I and planning for SAS-II. The objective is to strengthen ECR engagement in SAS-II through collaborative proposal development, interdisciplinary research, and training initiatives such as a pilot

cruise. Recent activities include an ASSW 2026 workshop supported by IASC funding. Next steps focus on finalizing a white paper, identifying infrastructure and funding needs, and developing scientific case studies and joint proposals to contribute to the SAS-II Science Plan.

Updates on PAG Structure, Chair Rotation, and PAG Meetings

- The 2026 Fall meeting will be held together with the DBO data workshop from November 16-19 in Victoria, Canada.
- The 2027 Spring meeting will be held during the Arctic Science Summit Week in Hakodate, Japan.
- The 2027 Fall meeting will be held in the USA.
- The 2028 Spring meeting will be held during the Arctic Science Summit Week in Porto, Portugal.