

PEI Report- IASC Cross Cutting Project 2024-2025

Polar Bridges: Closing the gap between polar science, research, indigenous knowledge, and polar education.

Summary

Building on historical precedent of combining polar science and education conferences (IPY2010-Oslo, IPY2012-Montreal, ISAR-4, ASSW2015 and ICARP III, DAVOS2018) PEI's 6th International Conference and Workshop for polar educators took place within the Arctic Science Summit Week alongside the APECS World Summit and the Indigenous Pavillion Program, which offered polar educators a unique opportunity to contribute to discussions about Arctic research priorities for the coming decade. Research and education presentations, activities and events facilitated networking, nurtured knowledge exchange, fostered partnership and collaboration among educators, arctic researchers, and indigenous participants –thus bridging the gap between polar knowledge, local and global action through polar education practice.

Out of the total number of registrants for ASSW and ICARPIV, 108 indicated their participation in PEI's Polar Bridges conference sessions. The *drop-in* nature of the greater ASSW science conference posed a challenge to accurately determine the exact number of consistent attendees across all PEI sessions, but anecdotal evidence was that the room was generally robust with attendees and activity. The advantage to this format was that PEI attracted new and unexpected contacts, some of whom have now joined PEI as Council members, mentors potential partners in upcoming projects including the new Polar Resource Book and lead up to the next IPY.

The Project Goal

Support by IASC Cryosphere, Marine and Social and Human Working Groups, guided science education themes for the 6th International workshop;

- A focus on place-based and land-based indigenous and non-indigenous approaches to learning about the Arctic.
- Understanding the earth's cryosphere better, including the world's water towers of the 3rd pole,
- Engaging audiences in impacts of plastic pollution and human behaviour on the polar oceans and people

Goals

The IASC cross cutting award was specifically limited to travel support for indigenous participants. Building on our continuing commitment to connecting communities, and with advice from IASC, we divided the award of € 7,000 into 3 travel bursaries of € 2,300

The aim was to find mentors to help guide and plan, shaping outcomes of our activities and events at ICARP IV.

Our mentors

Dr Anita Lafferty, Faculty of Education, University of Alberta, CA - PEI Council (unable to claim bursary as already funded by IASC)

Dr Haliehana Alaġum Ayagaa Stepetin, Assistant Professor of Arctic Security Studies, Ted Stevens Centre for Arctic Security Studies, USA (partial use of bursary)

Mars Sadidthaġ Kashevarof, student University of Alaska, Anchorage on Dena'ina lands, Tanaġ-ġ

Amiġ [St. George and St. Paul communities], Unangam Tanangin,

Kataisee Attaguksiak, Interpreter/ Translator,

Teacher, Inuit, Cultural Teacher, Inuit

Historian and a mother. Chairperson, Inuujaq School District Education Authority, Qikiqtani

Inuit Association, Arctic Bay Community

Director, and boardmember, local Arctic Coop Store. (no bursary used, as unable to attend due to political and personal events)

Alona Alexia Yefimenko, Researcher in indigenous methodologies, UiT, No, Advisor Sustaining Arctic Observing Networks' (SAON) Roadmap for Arctic Observing and Data Systems (ROADS) formerly Alona Yefimenko. Technical Advisor. Arctic Council Indigenous Peoples. Secretariat (no bursary used)

Approaches and methods - **Program overview**

- Orientation - presentations, ice breakers and scheduling - Educators, Scientists & Indigenous community members,
- 2 day Educators Workshop on IASC WG themes,
- World Cafe style 'Global Conversation' event (RPT 5-6 ICARP IV collaboration)
- field trips offsite to NOAA Boulder and the National Science Foundation Ice Core Facility
- Opportunity to remain in Boulder for ICARP IV events.

These PEI workshop events were complimented by 2 educator-led research priority identification activities -

- IPY Polar Resource Book Workshop for ECRs and
- RPT6 'Bridges of the Arctic' workshop and discussion, convened to examine science impact through pedagogy and practice

PEI2025-USA Conference Finance				Cross Cutting funds from IASC		
DESCRIPTION			€7,000	€7,000		
Indigenous participation						
	Haliehanna Stepetin (partial funding)	Conf registraion	570			
		per diem	390	6,040		
	Mars Sadidaꝰ Kashevarof (fully funded)	accomodation	1578			
		travel	560			
		conf registration	300	3602		
	Kataisee Attagutsiak (not funded- did not attend)		0	3602		
Reimbursements for unused accommodation- approved by Gerlis						
	Julia Dooley	17 unused nights	2210	1392		
				€1,392.00	given back to IASC	



PEI IASC Cross Cutting Proposal-

Short Description for IASC CC 2024 webpage (300 words)

Proposal

What will the IASC funds support?

Funds from IASC WGs enable equal engagement with Arctic indigenous mentoring and science mentors from the Cryosphere, Marine and Human & Social WGs, including fellows as an essential element of ICARPIV education and inter-cultural, interdisciplinary efforts towards a diverse understanding and protection of the Arctic environment and its communities.

Detailed project description 1500

Polar Bridges: Closing the gap between polar science, research, indigenous knowledge, and polar education.

Funding has been awarded by IASC M, C & S&H WGs for Indigenous representatives to attend the PEI2025 Workshop (21-24 March) and ICARP RPT 5&6 consultations (25-28 March) in Boulder, Colorado in-person.

The main aim of Polar Educators International (PEI) is to provide support and professional development and support for polar educators connecting pedagogy, current scientific research and indigenous knowledge to teach about the polar regions and their vital role in all earth's systems. We recognise all who educate and engage others learning in and about the polar regions as polar educators.

PEI 6th biennial international Conferences and Workshops for Polar Educators

Through our international workshops PEI Council strives to help all educators enhance and share their awareness, understanding, and knowledge of the Arctic environment and its significance in global climate and environmental change, **bridging the gaps** between scientific research and international educational practices, global climate and local impacts and diverse epistemologies and cultural practices.

During this time of environmental and societal crisis, each successful knowledge exchange between educators and the international polar research and indigenous knowledge holding communities helps our community of practice engage a more

extended and diverse audience with credible learning and communication tools and resources for environmental stewardship, monitoring, mitigation, adaptation and creativity for a more hopeful future.

We have connected with an average of 80 participants at our workshops In 2013, 2015, 2017, 2019, 2022 who represent. At ASSW2025, PEI2025 places emphasis on helping Arctic researchers and knowledge holders understand how educators can help broaden the reach of Arctic research priorities and needs using a hands-on, activity based approach.

The Arctic

PEI Strategic Plan (2020-2025) acknowledges the **urgent need for action and support for human-focused priorities in a changing Arctic**. We aim to co-ordinate the educational and social impact of polar educators by 'upstreaming' educator practice in current Arctic research planning and practice

Three key behaviours form our strands of action

- **connecting** interdisciplinary opportunities for polar researchers (including scientists, engineers, and professionals specializing in polar investigation and related disciplines) knowledge holders and polar educators learning and teaching in and about the poles bringing together expertise, knowledge and understanding of earth's poles to then connect a wider, global polar community

Fri 21 March 4pm-9pm Conference Orientation event for educators & IPs, then Conference Evening Social Event

Sat 22 & Sun 22 March.

9am-4pm presentations, snap talks and hands on activities - cryosphere/3rd pole, plastics/polar oceans, place-based pedagogies

6pm-8pm Global Conversation /Here - creative space art & cultural exhibition and activities & World Cafe conversation event

Mon 24 March - all day 'Field Trips' to research labs, CIRES organised Workshop

Fri 28 Mar 8.30am-Bridges of the Arctic convened session practice-led research and place-based, STEAM pedagogies

- **Co-creating** : international, national and local activities and resources for practising polar educators, scientists engaging the public, and cultural and community leaders preparing future generations to monitor, mitigate and adapt to environmental change

PEI Conference Activities

Sat 22 & Sun 22 March. 9am-4pm Education & Knowledge Sharing Workshop Activities including current marine, cryosphere and place-specific research &

pedagogies **6pm-8pm** [Here](#) - creative space art & cultural exhibition and activities creating interconnected place-specific pedagogies. **World Cafe** open-ended conversation connecting Arctic research, education and Indigenous knowledges

Tues 25 March 4pm-5.30pm IPY5 Polar Resource Book Workshop- cocreating education and engagement activities for IPY Polar Resource Book
Cryo, marine and h&s focus

- **Collaborating** Including leaders and young people from the Arctic regions in planning as mentors and peers, to help form and inform a new generation, strengthening international polar literacy and environmental stewardship).

PEI Conference Activities

- **Sat 22 & Sun 22 March, 9am-4pm** co- produced interdisciplinary Educator Workshop Activities, snap talks & presentations **6pm-8pm** [Here](#) - creative space art & cultural exhibition and activities **World Cafe** conversation event connecting Arctic research, education and Indigenous knowledges - Bridges for ICARPIV communication

- **Tues 25 March 4pm-5.30pm** - Hands on cryo, marine and h&s education and engagement activities for IPY Polar Resource Book

Capacity building to produce The IPY5 Polar Resource Book - a PEI initiative, in partnership with SCAR, IASC and APECS

From a landmark educational legacy of the 4th IPY, to a renewed educational tool for the 5th IPY

- 25 March 2025 | 16:00 - 17:00 (MDT)
 - Open Session - HYBRID
 - Room: UMC Third Floor - 386
 - Organisers: Maria Pia Casarini (Polar Educators International, PEI)
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- **Fri 28 Mar 8.30am**-Bridges of the Arctic convened session practice-led research and place-based, STEAM pedagogy - new international networks of practice

Specific Contributions to ICARPIV Consultation Process

All workshop events and activities at ASSW2025 are directly supporting the ICARPIV consultation process, and linked to IASC WG themes.

Additionally, 3 PEI ICARP events will **collect evidence of practice-led research priorities and research-led practice for polar education in and about the Arctic.**

- Sat 22 or Sun 23 March **World Cafe: Connecting Arctic research, education and Indigenous Knowledge**
- Tues 25 March **Interdisciplinary Workshop:** Building partnerships and knowledge sharing for the updated **IPY2032-2033 Polar Resource Book (PRB2)**
- Fri 28 March: **Bridges of the Arctic Big Breakfast convened session** focusing on pedagogy as a bridge connecting Research priorities and needs