Arctic Future Pathfinders course report

Leg 1: Nuuk – St. John's – Montréal

Leg 2: Edmonton – Iqaluktuuttiaq/Cambridge Bay – Somb'a K'e/Yellowknife – Anchorage

03.08.2025-15.09.2025

Andreas Altenburger, Melania Borit, Maxime Geoffroy, Karine Nigar Aarskog, Ekaterina Mikhailova

Septentrio Reports (2) 2026
https://doi.org/10.7557/7.8754

Leg 1 participants in front of Statsraad Lehmkuhl at the landing port of St John's, Newfoundland, Canada. Photo: André Marton Pedersen

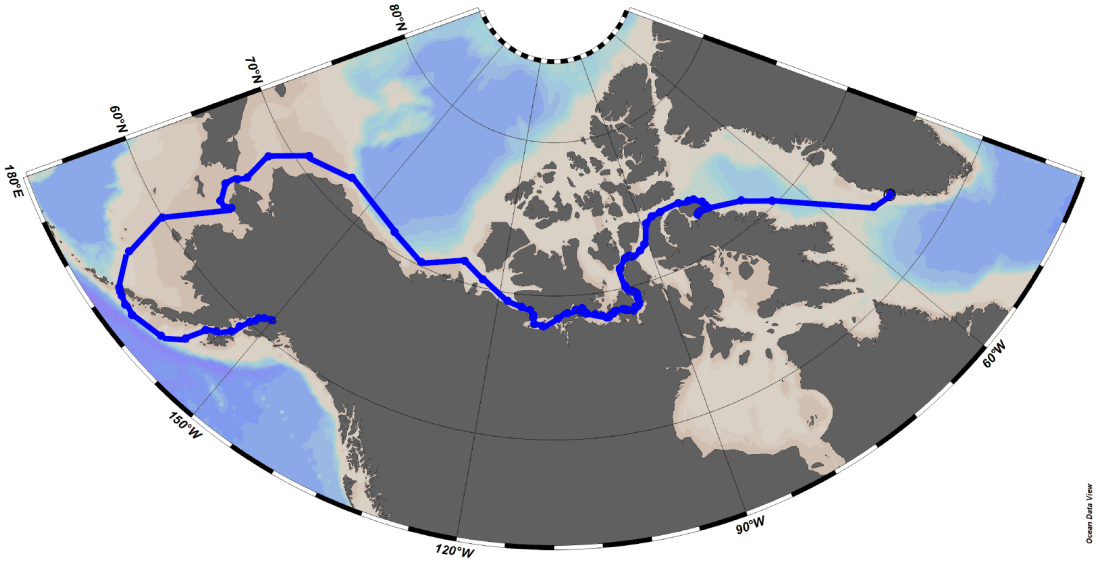
Leg 2 participants on the final day of the course at Beluga Point (Turnagain Arm), Anchorage, Alaska. Photo: Kunuk Lennert Olsen

Preface

This is a report of the cruise that was part of the course Arctic Future Pathfinders, implemented by UiT The Arctic University of Norway (UiT) in the autumn semester of 2025. The description of the course can be found here: https://uit.no/arctic-future-pathfinders. The course was designed to provide a space to study the future of the Arctic. In an interdisciplinary setting, participants were guided to analyse environmental changes and socio-economic impacts of the past, identify driving trends, and imagine possible, probable, and preferable alternative futures of the Arctic.

A cruise through the Northwest Passage on board the sailing vessel *Statsraad Lehmkuhl* was planned as part of the course, from Nuuk in Kalaallit Nunaat/Greenland, starting on 5th of August, to Iqaluktuuttiaq[1]/ Cambridge Bay, Nunavut, Canada until the 8th of August (Leg 1 of the cruise), and then to Whittier, Alaska, US until the 4th of October (Leg 2 of the cruise). However, after a few days of sailing north, the vessel had to change course, as, due to ice conditions in the Passage, Transport Canada denied her access to Canadian waters. Consequently, the cruise itinerary was changed: the first leg ended on the 20th of August in St. John's, Canada, while the second leg took place on land, starting in Edmonton, Canada, on the 28th of August and ending in Alaska, US, on the 15th of September.

Eighty-nine course participants and 26 UiT staff (educators from all the faculties, the university library, and the university museum; administrative coordinators; and communication experts) participated in the course over the two legs. In their journey, they had the privilege of being accompanied by Sámi and Inuit Knowledge Holders, as well as by a representative of the Arctic Council Indigenous Peoples' Secretariat during the first leg, and a community liaison during the second leg.



Map of the originally planned route for legs 1 and 2.

[1]Iqaluktuuttiaq is the spelling following the rules of the new orthography adopted in 2019. Ikaluktutiak is the old-orthography spelling. Both are used interchangeably in the cruise report.

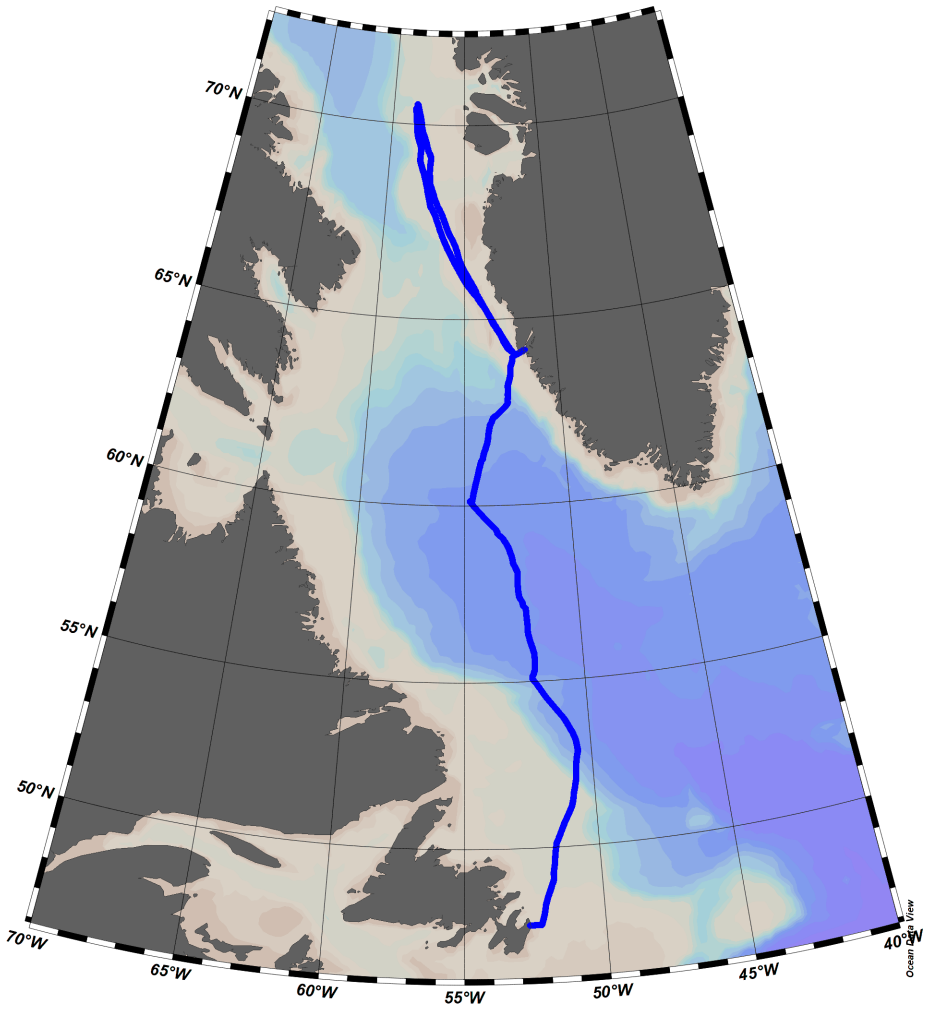
This report contains the information logged daily by the course participants, as well as articles written by the communication experts during the cruise and published at that time on the UiT website or other media outlets. Throughout the text, course participants have added pictures from their own collections, or taken by their colleagues during the cruise.

The daily logged information is presented as it was written, with almost no editing. Therefore, the content can sometimes be personal, and it is a subjective description of the various events.

Andreas Altenburger (educator during both legs and cruise coordinator during the second leg) has collected the logged information and the articles into one document. Melania Borit (coordinator of the course), Maxime Geoffroy (educator and cruise coordinator during the first leg), and Ekaterina Mikhailova (educator during the second leg) have read the report and provided comments for the final version.

We are grateful to all those who made this cruise possible.

Melania Borit and Andreas Altenburger,
UiT The Arctic University of Norway
January 2026, Tromsø, Norway



Map of the actual route during leg 1.

Contents

The Norwegian tall ship *Statsraad Lehmkuhl* moored at the harbour in Nuuk.
Photo: Karine Nigar Aarskog

Nuuk, Greenland, 03.08.2025

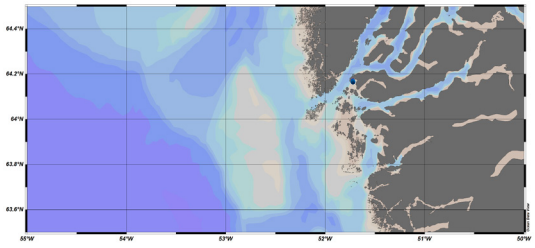
Andreas Altenburger

Arrival at the ship and familiarisation with the sleeping areas, including hammocks. Some participants did not receive their luggage and had to wait anxiously for it to be delivered to the ship in time before departure. Safety and programme briefing were conducted by course coordinators Yasemin and Saga, along with the *Statsraad Lehmkuhl* staff.

Cruise Leader Maxime Geoffroy speaks to students and instructors in front of the *Statsraad Lehmkuhl* in the Port of Nuuk, Kalaallit Nunaat, before departure. Photo: Karine Nigar Aarskog

Nuuk, Greenland, 04.08.2025

Louis James Frank



Map of the coast of Greenland. The position of the ship in Nuuk is marked with a blue dot

Survival suit training for all those unfamiliar with survival suits. Open ship event for everyone in Nuuk. Unpacking and settling in. Trust- and norm-building activities with the Association of Polar Early Career Scientists (APECS).

120 young people, together with researchers and educators from UiT and representatives from local communities, will discuss the future of the Arctic aboard the sailing ship *Statsraad Lehmkuhl*. Photo: Jakob Bjørvig Henriksen

Future Pathfinders in the Arctic

Jørgen Berge, Jan-Gunnar Winther

This news piece was originally published on April 9th, 2025, on uit.no.

At the beginning of August, the sailing ship *Statsraad Lehmkuhl* will depart from the quay in Nuuk, Kalaallit Nunaat, to sail through the Northwest Passage with students and researchers from UiT The Arctic University of Norway. The associations one might have when seeing a full-rigged ship in these waters are, unfortunately, not necessarily positive.

Most people probably know Kalaallit Nunaat better as Greenland, and few of us question that name.

The European way of narrating world history has traditionally been that it was Europeans who "discovered" other countries, defined them, conquered them, and gave them names. The Norwegian-Icelandic Erik the Red was the first European to explore the west coast of Kalaallit Nunaat.

He named the island Greenland, supposedly reasoning that people would be more inclined to travel there if the land had an appealing name.

However, the first inhabitants settled there around 4,500 years ago, long before Erik the Red "discovered" and named the land. And unlike Erik the Red, it is likely that the first humans arrived on the world's largest island from the west. The oldest human remains have been found on the west coast, in the area we now know as Disko Bay, at Saqqaq settlements dating back to approximately 2400 BCE.

The *Statsraad Lehmkuhl* is far from the first sailing ship to traverse the entire Northwest Passage. The passage, which runs along the northern coasts of Canada and Alaska, has become iconic in polar history due to European, and particularly British, attempts to find this mythical sea route to the Orient.

It was ultimately Roald Amundsen and his crew who, during the Gjøa Expedition from 1903 to 1906, became the first to sail all the way through. This is a heroic tale that we Norwegians, in particular, have grown up with, coinciding with a young nation's need to build identity and national pride. Though less emphasis has been placed on how the expedition was perceived by the Indigenous peoples of the area, either then or in more recent times.

It should be noted, however, that Amundsen himself is an example of an explorer who demonstrated both kindness and deep respect for the local Inuit, establishing a mutually beneficial relationship with the Inuit in Gjøa Haven. But the history of Europeans in the Northwest Passage is long, and it includes many examples of approaches quite different from Amundsen's.

The associations one might have when seeing a full-rigged ship in the waters we will sail through in August and September are therefore not necessarily positive. Even though the first inhabitants of Kalaallit Nunaat arrived via the Northwest Passage some 4,500 years ago, it is the many European expeditions that have garnered the most attention.

The word "expedition" means "a major journey" and is used to describe travels requiring significant equipment for a specific purpose, such as scientific or military objectives. There is something imperialistic about the word that is hard to ignore.

Of course, this is not to say that the word itself is problematic, nor the type of vessel, but in light of a history we should not uncritically take pride in, we must be aware that such a voyage may evoke unwanted associations.

Here we stand at the heart of the challenges we have faced while planning our own voyage: What has really changed since Amundsen sailed through and an entire nation celebrated his achievement?

UiT The Arctic University of Norway has been at the forefront in supporting the criticism presented in the Truth and Reconciliation Commission's report, and we see it as a given to contribute to the subsequent work. Many academic communities at UiT are working hard to strengthen efforts to create and share better relations and knowledge for and about the Sámi and Kven/Norwegian-Finnish communities. However, we also recognise that even at UiT, there can be a gap between theory and practice. During the planning of the voyage, we have more than once found ourselves unintentionally making mistakes because we have failed to fully grasp the depth of what is outlined in the report.

Our purpose for the voyage through the Northwest Passage is, however, very clear: to provide the participating students with an international perspective, rooted in everything from local communities to global climate perspectives.

When educating young people to become future polar researchers and knowledge bearers, we must give them a solid foundation and, above all, teach them to understand and respect Arctic culture and history.

In a world that is becoming increasingly divided, we are planning a student course centred on global unity, development, and reconciliation. We are bringing together an international group of 120 young people on a sailing ship, a proportion of whom have roots in Arctic Indigenous communities. Together with researchers and educators from UiT, as well as representatives from the local communities we visit, the participants will create knowledge and shared experiences.

In an interdisciplinary setting, they will jointly analyse environmental changes and

socio-economic impacts from the past, identify future drivers, and discuss possible scenarios for the Arctic.

The Arctic is facing significant and dramatic changes, much of which is related to accelerating climate change, impacting ecosystems, local communities, and traditional ways of life. As sea ice melts, new transport routes open, questions about resource extraction become more pressing, and international interest grows. Additionally, technological development, migration, tourism, demographics, and geopolitics make the future of Arctic socio-political systems and natural environments highly uncertain.

Many organisations have created visions for the future of the Arctic, but it remains a challenge to fully explore the range of possibilities for the changes that may come. Imagining this range is crucial for preparing for the future, promoting sustainable development, preserving ecosystems, and empowering Indigenous peoples and local communities.

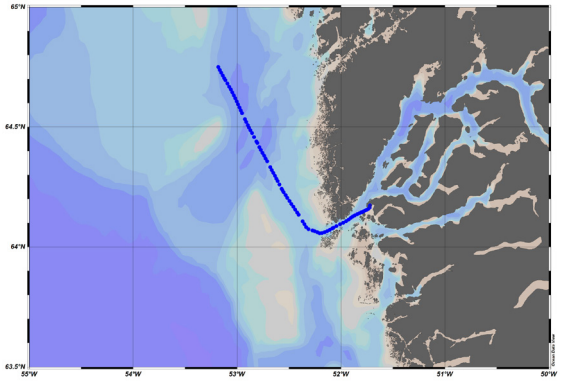
We want our students to be able to develop innovative and adaptable solutions to future challenges. In this way, they can become new pathfinders for the Arctic of tomorrow—not like the historical pioneers who arrived with various intentions, including exploration and resource exploitation, but with humility and respect, aiming to create a shared global vision for the future. This vision will be rooted in the local and guided by the worldviews, knowledge systems, and cosmologies of Arctic peoples, shaped over generations in harmony with nature.

It is our sincere hope that the planning and execution of this voyage will provide valuable lessons for the institution and for us as staff, and that together we can use this opportunity to take meaningful steps in the direction the Truth and Reconciliation Commission has so earnestly urged the entire nation to pursue.

View of the city scape of Nuuk from the ship as it departs on the voyage. Photo: Andreas Altenburger

From Nuuk toward the Davis Strait, 05.08.2025

Sanne Bergman



Map of West Greenland. The route of the ship is marked with blue dots.

We departed from the quay in Nuuk at 2 pm local time, after the police had checked and stamped the passports of educators and participants from outside the Schengen area. The day was filled with safety training, an introduction to the watch system, loading provisions, and setting course towards the Northwest Passage. The rector of UiT, Dag Rune Olsen, and about 20 other spectators, including the crew of a Danish military vessel, stood on the quay, waving us goodbye as we motored out. It was a slightly cloudy and windy day, and there was a quiet but still very notable excitement in the air. Seals and dolphins were spotted on the way out of Nuuk.

As we reached the open sea, Andreas Altenburger gathered all the students on deck and informed us about the Cruise Report and how to write about our scientific or course-related activities throughout the expedition. Maxime Geoffroy and science coordinator Lucie Cassarino talked about the upcoming scientific sampling stations and how sampling gear is operated, e.g. plankton sampling using a net and CTD measurements using a rosette sampler (CTD stands for Conductivity, Temperature and Depth, and produces line graphs which can be seen throughout this report). The plan was also to take sediment samples at the upcoming stations using a Van Veen Grab, but this plan was cancelled due to a missing sampling permit. We prepared for our first watches the next day by checking the lists to see who was assigned to one of the five watches: buoy watch, helm watch, fire watch, lookout, or cleaning team. It felt like we were all very motivated, excited and ready to tackle whatever this expedition would bring!

Jan-Erik Henriksen in front of the sailing ship *Statsraad Lehmkuhl* in Romssa/Tromsø.
Photo: Jørgen Berge

Two-Eyed Seeing through the Northwest Passage

Karine Nigar Aarskog

This news piece was originally published on April 29th, 2025, on uit.no.

The Indigenous perspective is central to Arctic Future Pathfinders – the student course that will sail through the Northwest Passage aboard the *Statsraad Lehmkuhl* in August and September.

The voyage begins in Nuuk, Kalaallit Nunaat/Greenland, on August 5 and travels through the Northwest Passage before concluding in Whittier, Alaska, on October 4, with a stop in Iqaluktuuttiaq/Cambridge Bay, Canada. Sixty students will participate in each of the two legs of the journey, along with a total of 40 researchers from UiT and partner universities. The course, organized by UiT, places great emphasis on incorporating Indigenous perspectives into all aspects of the voyage. Representatives from Indigenous communities in Norway and Kalaallit Nunaat/Greenland will be on board to share knowledge and experiences.

"We aim to create a platform where Indigenous knowledge is recognized and valued equally alongside academic research. This is an important part of our societal mission as a university," says Jan-Erik Henriksen, Associate Professor of Indigenous Studies at UiT, who will join one of the legs of the journey.

He refers to the Canadian First Nations concept of "Two-Eyed Seeing." This involves learning to see with one eye the strengths of Indigenous ways of knowing and with the other eye the strengths of Western ways of knowing, and using both eyes together.

"We want to raise awareness of how traditional knowledge and modern research can go hand in hand," says Henriksen.

Jan-Erik Henriksen on board *Statsraad Lehmkuhl*. Photo: Karine Nigar Aarskog

Images from Kalaallit Nunaat/Greenland

One of the planned activities on board is a poster exhibition. The exhibition, part of the EU project Green Feedback, focuses on climate change and ecosystem services in the Arctic. It includes images from Kalaallit Nunaat/Greenland and results from previous workshops. The exhibition is planned to be displayed in Nuuk and possibly other locations along the route, with the goal of creating a platform for dialogue on how climate change affects Indigenous traditions and livelihoods.

"This journey is a fantastic opportunity to highlight both research findings and Indigenous knowledge," says Henriksen.

Other planned activities include a film festival featuring Indigenous films, a lasso-throwing competition, workshops on traditional crafts, language courses, and lectures on Sámi and Inuit relationships with nature.

Ethical Protocols and Collaboration

The researchers on board are also strongly focused on ethical guidelines and collaboration with local Indigenous communities. Protocols developed by the Inuit Circumpolar Council (ICC) are being used as a guide for conducting research in a respectful and inclusive manner.

"It is crucial that we listen to and collaborate with the local communities we visit," emphasizes Henriksen.

"This is not just about research but also about building trust and understanding. We see increasing 'research fatigue' because Indigenous peoples have, for many years, been treated as objects of research without necessarily benefiting from it. Therefore, it is important for us to adhere to the slogan 'Nothing about us, without us,'" he adds.

Challenges and Opportunities

Although there are certain challenges associated with the voyage, such as limited time on land and the lack of binding agreements with local partners so far, Henriksen remains optimistic about achieving his goals. Among other things, he hopes to collect material for the research project Birgejupmi, which has received three million euros in funding from the EU. There are also plans to conduct several activities involving local communities when the ship docks in Nuuk.

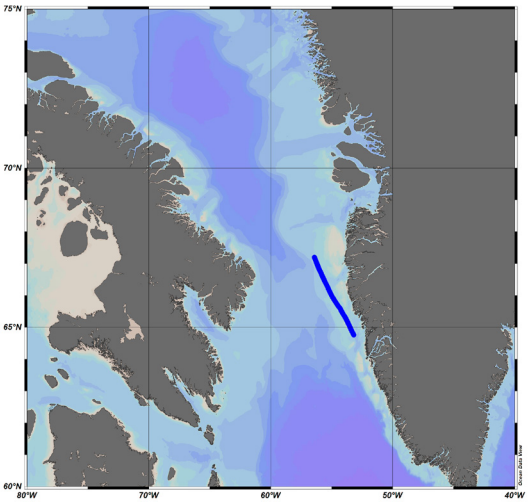
Henriksen hopes the voyage will raise awareness of Indigenous knowledge and how it can, for example, play a key role in addressing climate change.

"This is a unique opportunity to strengthen solidarity among Arctic Indigenous peoples and to highlight their perspectives on a global stage. This journey marks an important step toward bridging traditional knowledge and modern research, shedding light on how we can collectively address the challenges in the Arctic," says Henriksen.

Second Officer Joachim Juel Vædele explains the safety drill with a copy of the Polar Code, which regulates the safety of polar shipping operations. Photo: Karine Nigar Aarskog

Towards the Davis Strait, 06.08.2025

Andreas Altenburger



Map of Greenland/Kalaallit Nunaat and Buffin Island/ Qikiqtaaluk with the ship's track in blue.

On the second day of our cruise, we sailed through the Davis Strait in beautiful weather, with sunshine and only a few clouds in the sky. This was the first day after the implementation of the full watch system, meaning that all passengers were assigned to different shifts (blue, white and red) for sail handling and other tasks on board. As a result, many people had little sleep during the night.

Throughout the day, we learnt about the various sails on the ship and the names of the different ropes used for sailing. At 2 pm, a fire and evacuation drill was conducted, which went very smoothly. All 112 passengers were, in theory, escorted safely off the ship, with no one left behind. After the drill, we checked our personal survival kits to ensure they contained sufficient water, in accordance with Polar Code standards.

Later in the day, the wind shifted, bringing changes in the weather. Many people on

The two master's students Susanna Nemeth Winther (t.v.) and Lisell Øyjordet writing in their notebooks. Photo: Karine Nigar Aarskog

board became seasick and had to use the throw-up tube (spygatt). Despite this, we managed to raise three sails in the afternoon: the foretopmast staysail, main topmast staysail and mizzen staysail.

Unfortunately, several passengers suffered from colds, gastroenteritis and seasickness, which affected their ability to perform their watch duties. Despite these challenges, we held a daily orientation briefing at 6.30 pm, during which we discussed our plans for the following day. Although no samples were collected today, we observed some seals and seabirds, mainly Northern Fulmars, which appeared to be travelling alongside us.

The sailing ship *Statsraad Lehmkuhl* has a classroom below deck. Photo: Karine Nigar Aarskog

Charting Arctic futures together

Karine Nigar Aarskog

This news piece was originally published on August 13th, 2025 on uit.no.

Interdisciplinary teaching, Indigenous perspectives, and integrative thinking prepare students for the challenges ahead.

"We brought on board 15 educators from all UiT faculties and units. Each of their unique specialization is a thread then we weave together with perspectives of Indigenous Knowledge Holders (both Sami and Inuit), as well as with arts, crafts, and reflections into a holistic learning experience," says Melania Borit, professor of knowledge integration and the coordinator of the Arctic Future Pathfinders course.

She coordinates the course alongside her colleague, Timo Szczepanska, expert in futures studies. Both are part of the research group CRAFT at the Norwegian College of Fisheries Science. Together, they ensure that, while gaining insights from various disciplines, course participants also conceptualize the Arctic as a social-ecological system under stress.

"The integrative moments are where the real magic happens," says Borit.

"You might start the day learning about sea ice physics and end it debating Arctic navigational regimes. Then suddenly you realise the two are inseparable."

Why futures thinking matters

Climate change, shifting geopolitics, and new economic activities are rapidly transforming the Arctic. For Borit, a futures studies approach is absolutely necessary.

"We cannot just look at what is – we have to explore what could be and what we desire to be," she explains.

Students are guided to imagine preferable futures, helping them prepare for challenges

Timo Szczepanska and Melania Borit before leaving Nuuk in Kalaallit Nunaat (Greenland).
Photo: Karine Nigar Aarskog

that cannot be solved by single disciplines alone. By exploring the current trends and drivers of change, as well as envisioning desired future states of the Arctic, course participants develop the ability to think strategically, work across disciplines, and create informed, forward-looking solutions to both current and future challenges.

"The future is not a static state of the world, waiting to happen. We are actively shaping it through our daily actions in the present", explains Szczepanska.

Building capacity for a changing Arctic

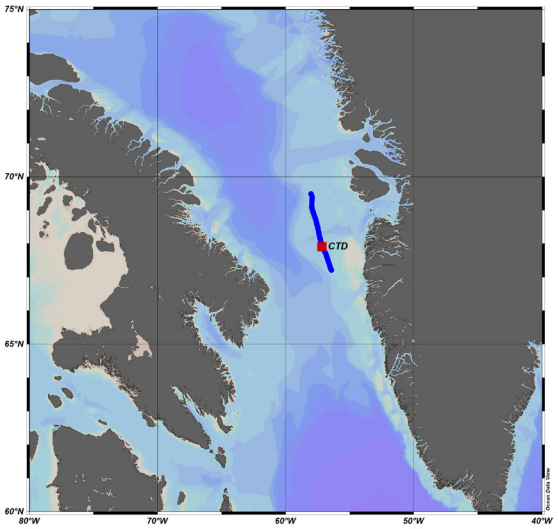
For Borit, the combination of practical seamanship, disciplinary awareness, Indigenous perspectives, personal reflections, and integrative futures thinking is transformative.

"It is not only a cruise – it is a demanding, collaborative experience. But it is also empowering," she says.

"When students make the connections and start thinking long-term, they prepare to take meaningful action for a sustainable Arctic future."

Davis Strait, 07.08.2025

Soraya Grigoriou Gratton



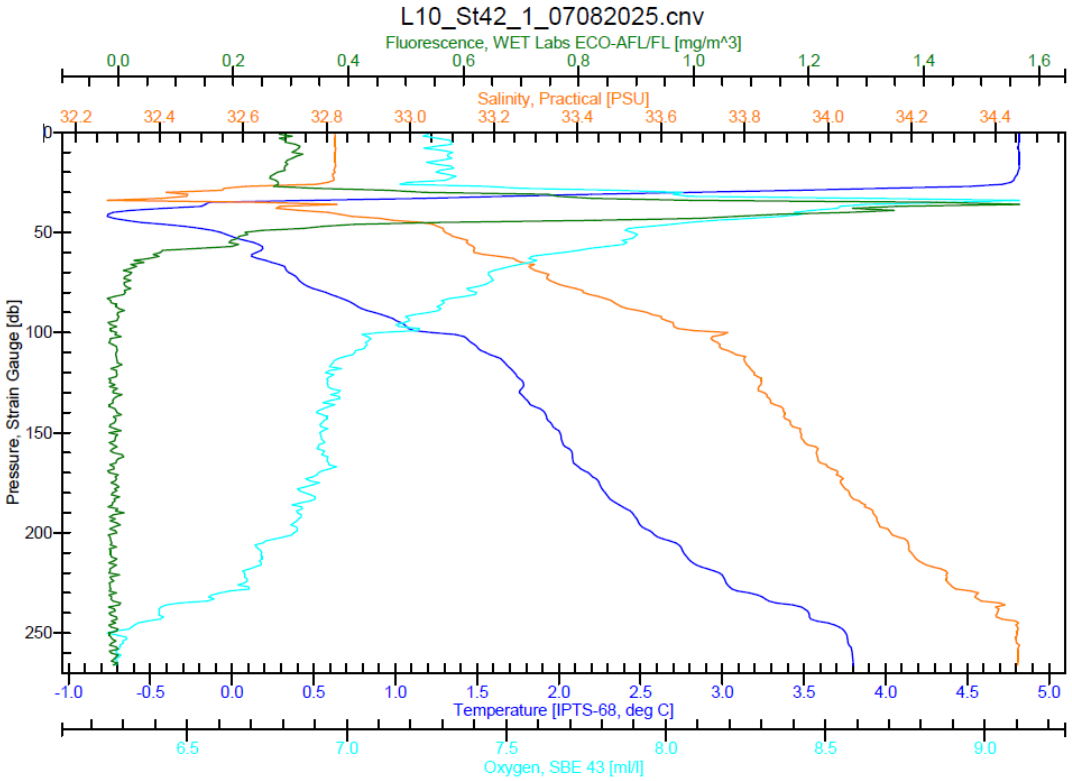
Route on August 7th, 2025

The first scientific station at dawn.
Photo: Soraya Grigoriou Gratton

On the morning of the 7*th*, around 6 am, the crew set up the first scientific station of the journey. They sent down some equipment with the help of a few students from the White Watch, while the rest of us observed, trying not to get in their way. As the station unfolded, the sun rose above the sea and the good weather held for the entire day. We were able to have our first lecture on deck in the sun, which made the day particularly enjoyable, exciting and special. High spirits all round!

CTD profiles collected during the cruise provide insight into the physical and biogeochemical structure of the water column. On our cruise, the measurements reveal a strongly stratified system, with a warm, fresh, and oxygen-rich surface layer overlying colder, saltier, and less oxygenated deep water. This stratification is accompanied by a pronounced thermocline and halocline, which limit vertical mixing. High fluorescence values near the surface indicate active phytoplankton growth in the euphotic zone, while deeper layers show reduced biological activity. Such conditions are characteristic of summer in Arctic regions, where meltwater and solar heating create a stable surface layer above the more saline Atlantic-derived water masses.

Station coordinates: 67°54’45”N 057°09’35”W, Start time (UTC 6:52)



The CTD profile shows a stratified water column extending to a depth of approximately 250 metres. Surface waters are relatively warm, at around 5°C, and fresh, with a salinity of about 32.8 . Temperature decreases down to 40 m depth, falling below 0°C before increasing again towards the bottom of the profile. Salinity also increases to approximately 34.4 towards the bottom. Oxygen concentrations are highest near the surface, at roughly 7.3 ml/l, with a peak of 9 ml/l at 40 m depth, co-located with the phytoplankton, and decline gradually to about 6.3 ml/l at depth. Fluorescence peaks in the upper layer, indicating phytoplankton activity, and drops sharply below 50 metres. These patterns suggest a well-defined thermocline and halocline, typical of summer stratification in Arctic or sub-Arctic waters.

Andreas Altenburger (left) carries research equipment aboard the *Statsraad Lehmkuhl* when the ship visited Romssa/Tromsø in April 2025. Here he is together with PhD candidate Sanne Bergman and project coordinator Yasemin Bodur. Photo: Karine Nigar Aarskog

Exploring unknown life in the Northwest Passage

Karine Nigar Aarskog

This news piece was originally published on June 4th, 2025 on uit.no.

Andreas Altenburger is set to explore one of the world's least studied marine areas as he takes part in the voyage through the Northwest Passage in August/September. The aim is to map known species and uncover unknown ones to gain a deeper understanding of life on the seabed.

The Northwest Passage is known for its challenging conditions. Only between 400 and 500 ships have navigated through the passage over the past 150 years, making the area one of the least explored regions in the world. Associate Professor Andreas Altenburger is one of the researchers from UiT The Arctic University of Norway. He expects to discover new species, particularly within what is known as meiofauna. These organisms live on the seabed and are filtered out using specialised nets with a mesh size of less than 1 mm.

"We know that over 90 per cent of the species living in the ocean are unknown to us, and we are quite certain that on this journey we will discover species that have never been seen before," says Altenburger.

Important for the ecosystem

He will use specialised equipment to collect samples from the seabed. These samples will be analysed further in a laboratory after the journey is completed. Although the major discoveries will come later, he will also be able to examine some of the small organisms directly under the microscope while on board.

"It is fascinating to see how many unknown species exist. These small organisms play a vital role in the ecosystem because they are key links at the bottom of the food chain, and their job is to break down organic material. Yet, we still know very little about them," explains the researcher.

The science of serendipity

Altenburger finds one of the most exciting aspects of the journey to be the opportunistic approach to sampling. He will collect samples wherever the ship stops, without fixed stations, which opens the door to unexpected discoveries.

"Many of the most interesting discoveries happen in places we don't expect, and this allows us to make findings we hadn't anticipated—or weren't even looking for. This is what makes research so exciting," he says.

The Importance of knowledge

Altenburger emphasises that understanding biodiversity is essential for comprehending and protecting the ocean's ecosystems. While the discoveries may not have immediate practical applications, the species are crucial for building a fundamental understanding of marine life.

A kinorhynch as seen through a microscope. Photo: Andreas Altenburger

"Naming species and understanding their role in the ecosystem enables us to talk about biodiversity in a tangible way. This is fundamental for preserving the ocean," he says.

The journey will also be documented through photos and videos, which will be used to share the research with a broader audience. Andreas Altenburger hopes this will foster greater interest and understanding of the ocean's hidden world:

"With this voyage, we are taking an important step towards uncovering the ocean's secrets and contributing to a deeper understanding of Arctic biodiversity."

Note added for the cruise report

Unfortunately, the grab was not included in the research application for Greenlandic waters, so in the end, not a single grab sample was taken during the cruise period on *Statsraad Lehmkuhl*.

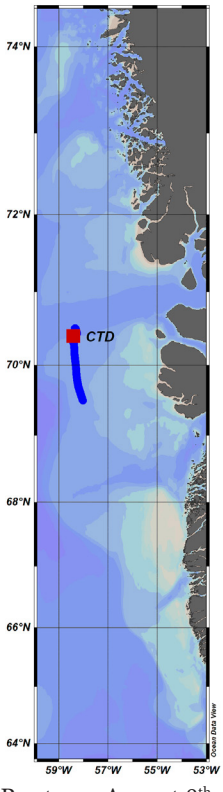
Andreas Altenburger (right) demonstrates how the grab works to boatswain Jesper Rosenmai aboard the *Statsraad Lehmkuhl* in April 2025 when the ship was visiting Romssa/Tromsø. Photo: Karine Nigar Aarskog

Watch training at the lookout post during the crew's watch rotations, in the evening light.
Photo: Vincent Denarié

Davis Strait – aka *Statsraad Lehmkuhl* and the Adventurers of The Lurking Bergs – Episode X: A Day at the Disko, 08.08.2025

Clement Masse

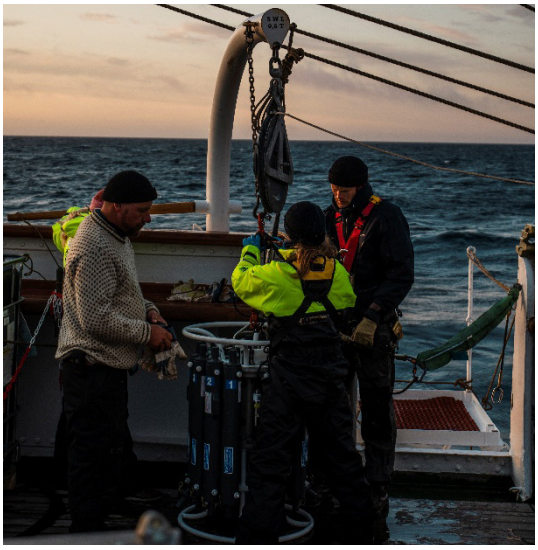
After a rainy night, the weather calmed down, though the horizon was still grey and the bergs were lurking about. The sails in the locker room were taking up too much space, and so it was time to tidy them up. We carried them up to the deck, unfolded them, and wrapped them tightly and neatly again. We carried these massive and heavy sail rolls back to the locker room, each carrying a piece on our shoulders like little ants, demonstrating once more our teamwork capacities.



Route on August 8th, 2025

Members of the Blue Watch re-wrap the sails on deck during the cruise.
Photo: Hannah Thommessen

Sara hanging on the end of the main upper topsail yard folding the sail.
Photo: Mathieu Roy

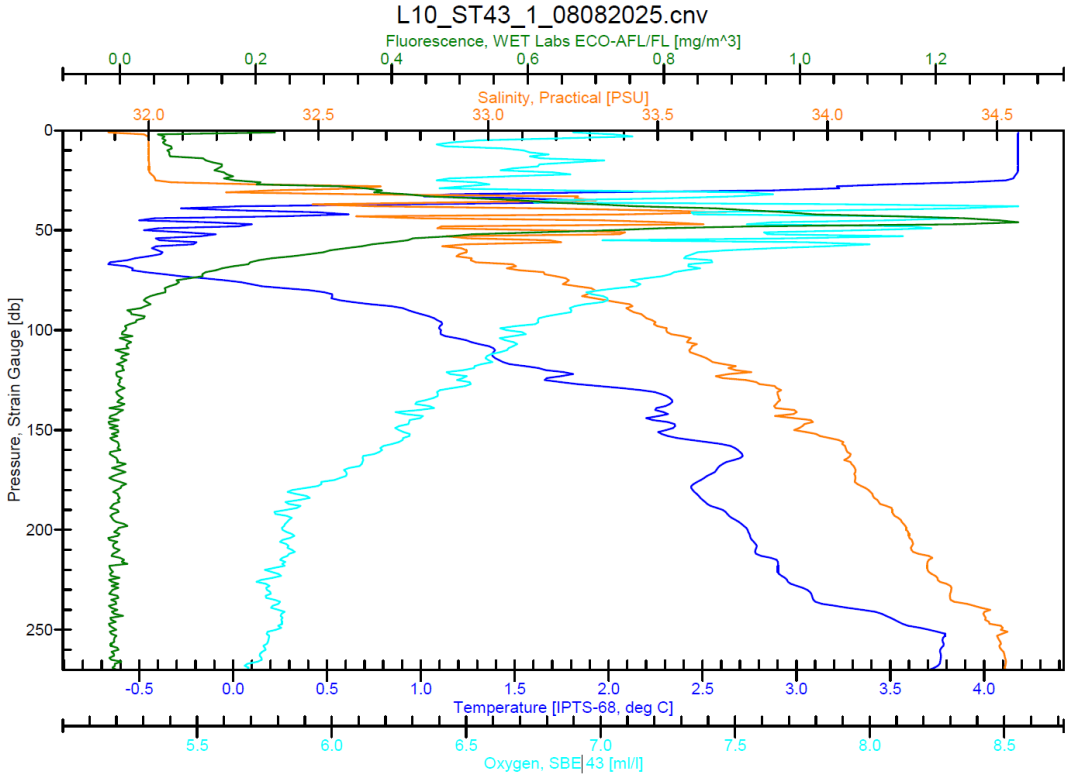


Deployment of the CTD rosette during the scientific station on August 8.
Photo: Vincent Denarié

When the bell rang for the 12:00 watch change, we went downstairs into the warmth for lunch. After another good meal, the quartermaster and the doctor made an announcement: an update on the health situation on board. More people had got a stomach bug, and the current measures (surface disinfection and regular handwashing) were unable to stop the spread. As an additional measure, a quarantine zone has been set up on the aft deck, with hammocks separated from the rest of the watches. Food will be brought to the quarantined people to limit contact as much as possible. Anyone with symptoms is asked to report themselves and be moved to quarantine. Hopefully that will be enough; otherwise the stomach flu could keep spreading over and over for the whole trip. Scary thought.

After lunch, and during one of our rare moments of relaxation, a second announcement came, from the captain this time and over the general intercom. One of us was facing a medical emergency requiring immediate action. The decision was made to evacuate the person by helicopter, sent from Greenland. Despite the shock and the saddening news, the crew handled the matter very professionally. The evacuee was brought

Station coordinates: 70°24’02”N 058°25’03”W, Start time (UTC 17:04)



The CTD profile with measurements taken from the surface down to approximately 250 dbar (roughly 250 metres depth). The temperature shows near-freezing conditions at 50 metres depth, around -0.5°C, and gradually increases to about 4°C at depth, indicating an inversion typical of Arctic waters influenced by Atlantic inflow. Salinity starts at approximately 32 near the surface and rises steadily to about 34.5 at depth. Oxygen concentrations are high near the surface, around 8.5 ml/l, and decrease with depth to about 6 ml/l. Fluorescence peaks near the surface, indicating phytoplankton presence, and declines sharply below 50 metres. Overall, the profile shows strong stratification with a distinct halocline and thermocline, typical of summer conditions in Arctic or sub-Arctic regions.

on board a small boat at a safe distance from the ship, where the helicopter could approach and rescue them safely.
The teaching time was a good way to think about another topic. We were introduced to interdisciplinarity and its terminology, as well as to Futures Studies. We finished the session with an icebreaker game, asking each other deeper questions than the now-usual “Where are you from and what do you study?”

After a traditional Norwegian Friday taco dinner, we gathered on the deck and received additional and reassuring details about the evacuation. We then checked the water profile from the last station and got to observe the small fauna of the Arctic Ocean. The perk was getting to observe the sea ravens!

In the evening, the wind calmed down and the sea was quiet. During a beautiful sunset, we could observe majestic icebergs with incredible colours and sculpted shapes, with arcs of ice plunging into the cold water. With their numbers increasing, we put the sails down, switched on the engine, and changed course to a safer direction. In yellow and blue light, we went towards the south, with the bergs still lurking around.

Maxime Geoffroy is doing research aboard *Statsraad Lehmkuhl*, on it's way through the Northwest Passage. Photo: Karine Nigar Aarskog

Scientists Explore Arctic Waters to Uncover Secrets of a Changing Ocean

Karine Nigar Aarskog

This news piece was originally published on August 9th, 2025 on uit.no.

Western Greenland: A team of researchers aboard the sailing ship *Statsraad Lehmkuhl* is delving into the Arctic's icy waters to study the region's biodiversity, ocean currents, and the impacts of climate change.

The student course Arctic Future Pathfinders, which is held on the sailing ship *Statsraad Lehmkuhl* going through the Northwest Passage, combines cutting-edge science with hands-on education. The researchers are already yielding fascinating insights into one of the planet's most dynamic ecosystems.

A massive iceberg with a natural archway illuminated by the sunset. During the cruise, everyone guessed whether the vessel could fit through the arch. Photo: Hannah Thommessen

Zooplankton are tiny drifting animals that play a critical role in the Arctic food web.
Photo: Karine Nigar Aarskog

Investigating the Arctic's Hidden World

The research team on board is conducting a wide range of studies, from analyzing ocean currents to collecting samples of tiny marine organisms. Maxime Geoffroy, a marine biologist leading the voyage, explained the scope of the work.

"We're looking at many things here. For example, we're using an Acoustic Doppler Current Profiler to measure ocean currents and a CTD sensor to analyze salinity, temperature, and water masses. These tools help us understand the physical environment that shapes life in the Arctic."

The team is also filtering water for environmental DNA (eDNA) to identify the biodiversity of organisms present in the water. Additionally, they are studying microplastics to assess pollution levels in this remote region.

Zooplankton after it has been filtrated.
Photo: Karine Nigar Aarskog

Zooplankton: The Foundation of the Arctic Food Web

One of the key focuses of the research that Geoffroy is conducting is zooplankton, tiny drifting animals that play a critical role in the Arctic food web. Geoffroy described their importance:

"Zooplankton, particularly copepods, are like the cows of the sea. They graze on phytoplankton, accumulate fat, and become a rich food source for larger predators like fish, whales, and seals. Even though they're small, their sheer numbers make them vital to the ecosystem."

At one station near Western Greenland, the team observed an abundance of *Limacina helicina*, or "sea ravens," a type of zooplankton with delicate shells.

"We found a lot of these sea ravens here, which is interesting because I haven't seen such large numbers at other stations before," said Geoffroy. "We'll analyze these samples further in the lab to understand their role in this region."

Climate Change in the Arctic

The Arctic is undergoing rapid changes due to global warming, and the team is documenting these shifts firsthand.

"One of the most striking changes is the reduction in ice cover," said Geoffroy. "Trips like this would have been impossible 10 or 15 years ago because the ice was more extensive

Ice bergs appear often on the west coast of Kalaallit Nunaat (Greenland). Photo: Karine Nigar Aarskog

year-round. Now, we're seeing warmer water and less ice, which is transforming the ecosystem."

The phenomenon of "Atlantification," where Arctic waters take on characteristics of the Atlantic Ocean, is more advanced in regions like the Barents Sea. However, the Canadian Arctic Archipelago remains colder and more ice-covered, highlighting the diversity within the Arctic itself.

A Journey Through Changing Waters

As the voyage moves westward toward Canadian waters and the Beaufort Sea, the team expects to encounter even more changes.

"In the Canadian Arctic, we'll see colder, ice-covered waters that are less productive," explained Geoffroy. "But when we reach the Beaufort Sea, productivity will increase due to nutrient input from the Mackenzie River and Pacific water. It's an area rich in life, with belugas, bowhead whales, and seals."

A Mission for Science and Education

The voyage is not just about research; it's also a learning opportunity for students and educators. Geoffroy emphasized the importance of this dual mission: "We're not only contributing to the body of scientific knowledge but also training the next generation of scientists. That's a big part of what makes this work so rewarding."

While the team has made some intriguing observations, Geoffroy cautioned that science takes time:

"We've only made two stations so far, so it's too early to draw big conclusions. Science is often about the sum of many observations rather than one groundbreaking discovery. But every piece of data we collect adds to our understanding of the Arctic."

The Arctic is a region of contrasts, where ice-covered waters meet vibrant ecosystems teeming with life. As the expedition continues, the team remains committed to uncovering the secrets of this changing environment and sharing their findings with the world.

"The Arctic is vast and diverse," said Geoffroy. "Even within the Canadian Arctic, conditions vary greatly from one region to another. It's a privilege to study this incredible place and contribute to its conservation."

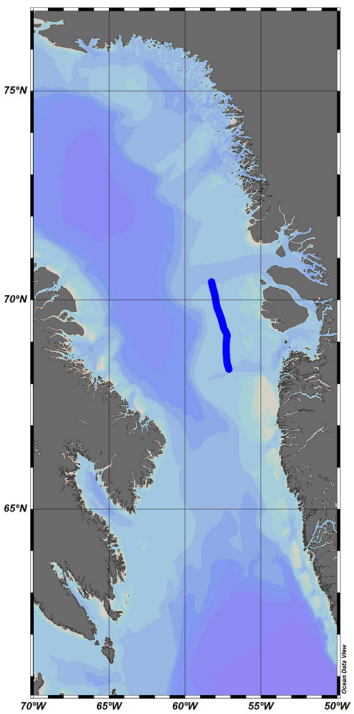
The One Ocean Expedition CEO's speech following the announcement of the boat's change of course. Photo: André Marton Pedersen

Baffin Bay, 09.08.2025

Yara Nieuwenhuis, Chloé LeBlanc-Grant, Soraya Grigoriou Gratton

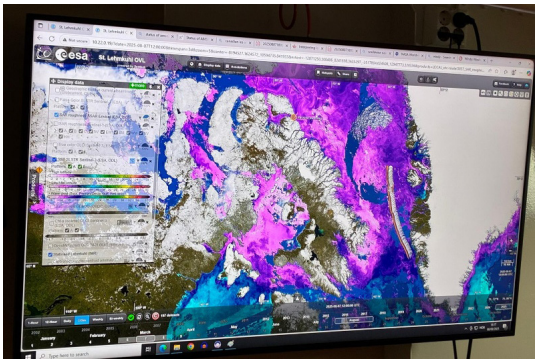
After a calm night at sea, we woke up in our hammocks with the *Statsraad Lehmkuhl* still moving towards the south (which hadn't gone unnoticed by most of us on board). As far as we knew, we were simply waiting in the bay close to Greenland until Canada would allow us to enter Canadian waters.

The day before, we had spent quite some time looking out over the horizon, pointing out numerous icebergs that almost seemed to be increasing in both size and occurrence as the day went on. Naturally, we were all a bit worried about what this could possibly mean for the rest of our journey, as it is no secret that the ice conditions there could be even harder to navigate.



Route on August 9th, 2025

Captain's announcement of the boat's change of course. Photo: André Marton Pedersen



Ice Chart of the region on August 8th, 2025. Photo: Enzo Bertaut

During our first shift of the day (08:00–12:00), the weather had taken a slight turn, and soft rain had replaced the sunshine from the previous day. While we were learning how to tie different useful knots with our watch leaders, many of us were still questioning why the ship was still setting a course towards Nuuk.

Right after lunch, we finally got a bit more clarity about the situation. After all of us (including most of the permanent crew) had gathered in the 1st banjer, the captain broke the news to us that, unfortunately, Canada would not allow us to move forward with our plans to sail the Northwest Passage. The ice conditions simply wouldn't allow us to reach Iqaluktuuttiaq/Cambridge Bay safely, which led to the decision to change our course back to Nuuk.

Although we were all very disappointed that the journey we had been looking forward to for so long would no longer happen, we also understood that the safety of us students, educators and crew members was not worth the risk of something happening in such a remote and challenging area.

This sudden, drastic change of plans left us with a lot of questions, mostly about where we would be going instead, whether the second leg would still be able to join the *Statsraad* in the same way that we did, and whether our month-long journey would suddenly become a lot shorter.

Despite the sad news, I found that our group has been incredibly good at keeping spirits up throughout the rest of the day. This included everything from music and making a silly birthday card for one of our watch leaders to carrying on making light-hearted jokes about the situation. Tomorrow, we will hopefully know a bit more about what the next few weeks will hold for us, and hopefully we will have a plan by Monday. Until then, we just keep spirits up amongst our fellow students, knowledge holders, teachers and crew.

Sea angels, pteropods, in a bucket at today's sampling station. Photo: Enzo Bertaut

Captain Marcus Zeidl (t.v.), cruise leader Maxime Geoffroy from Memorial University/UiT and expedition leader and director for *Statsraad Lehmkuhl,* Haakon Vatle, inform the crew about what will happen. Photo: Karine Nigar Aarskog

Enzo Bertaut

Today, the ship remained in remarkably calm conditions, so calm that many of us felt as if we were barely moving. In fact, during the captain's briefing, we learned that we would not continue towards the Northwest Passage after all. Ice conditions in the region are too heavy, and the Canadian government has denied passage. As a result, the ship is turning back towards Nuuk to disembark the ice pilot and several people who are not feeling well. The news created a generally heavy and muted atmosphere on board.

Despite this, Ali from the Red Watch played the ukulele in the common room, and we all ended up singing 'Somewhere Over the Rainbow' together, which helped lift everyone's spirits.

For the Blue Watch, it was Loritz's birthday today. We gave him a small gift: a camel-themed sketchbook, which referenced a personal story he had shared with us earlier. During both Blue Watch shifts, there was not much work on deck, as the ship was running on engines during the transit back to Nuuk.

Two events stood out during the morning watch:

At 11:40, we passed an enormous iceberg, one of the largest we have seen so far on the expedition.

During the scientific sampling session with Maxime, we collected a surprisingly large number of sea angels, which excited many of the students.

Meals today included tacos for lunch and chicken with potatoes for dinner. During the evening Blue Watch, conditions remained uneventful. However, at around 23:00, during sunset, we spotted another massive iceberg on the horizon, illuminated beautifully by the low Arctic light.

Overall, despite the change of plans and the subdued mood across the ship, the day offered several memorable sightings and moments of shared warmth among the crew and students.

Statsraad Lehmkuhl in Davis Strait, on it's way to Pond Inlet. Photo: André Marton Pedersen

Statsraad Lehmkuhl will not sail through the Northwest Passage

Karine Nigar Aarskog

This news piece was originally published on August 9th, 2025 on uit.no.

***Statsraad Lehmkuhl* has decided not to carry out the planned voyage through the Northwest Passage due to ice conditions. The ship is currently in Baffin Bay, near Kalaallit Nunaat (Greenland), and was originally heading towards the passage.**

The Northwest Passage voyage has been planned for over two and a half years, in close cooperation with, among others, one of Canada's most experienced ice pilots. Already in the planning phase, we were aware of the risks and that ice conditions would be decisive for whether the voyage could be completed.

Although ice charts for large parts of the route have looked promising, recent data show that the coming ice conditions could exceed what the ship is certified for. This is particularly the case in the western part of the Canadian Arctic, where the ice melting season has started later than expected, and there is significant uncertainty about developments in the coming weeks.

"We never compromise on safety, especially not in Arctic waters", says Haakon Vatle, expedition leader and CEO of the *Statsraad Lehmkuhl* Foundation.

"Of course, many are disappointed, but nature has the final say. We have been prepared for the possibility of having to change the route, and have quickly prepared alternative solutions."

UiT prioritize the safety of the students
Pro-rector for Research and Development at UiT The Arctic University of Norway and responsible for the student course on board, Jørgen Berge, says:

"We have been informed that the ship cannot enter the Northwest Passage due to ice conditions. This will have implications for the planned course and research voyage."

"Exactly how it will be affected is something we will work on in the coming days and weeks, but we will always prioritise the students' safety and learning, and will therefore ensure that they can complete the ongoing course under the new prevailing conditions. The situation demonstrates how unpredictable the Arctic can be, and that nature always has the final word", says Berge.

The voyage continues
The student course is a part of One Ocean Expedition, going from Bergen to Bergen through a whole year. In consultation with UiT The Arctic University of Norway, the course is now set southwards so the ship can meet as many of its commitments as possible along the US West Coast.

The preliminary plan is now for *Statsraad Lehmkuhl* to arrive in Bermuda at the same time as the original scheduled call in Iqaluktuuttiaq/Cambridge Bay (August 29th 2025). From there, the ship will sail through the Panama Canal to Los Angeles, and then continue to Vancouver, arriving as planned in mid-October 2025.

Statsraad Lehmkuhl's deck seen from halfway up the mainmast on the cloudy morning of August 9th. Photo: Mathieu Roy

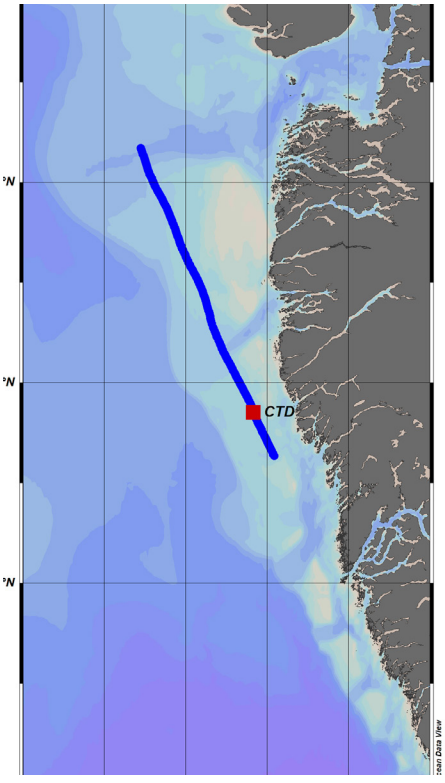
Polar baptism on board *Statsraad Lehmkuhl*. Photo: Karine Nigar Aarskog

Return to Nuuk, 10.08.2025

Laurien De Korte

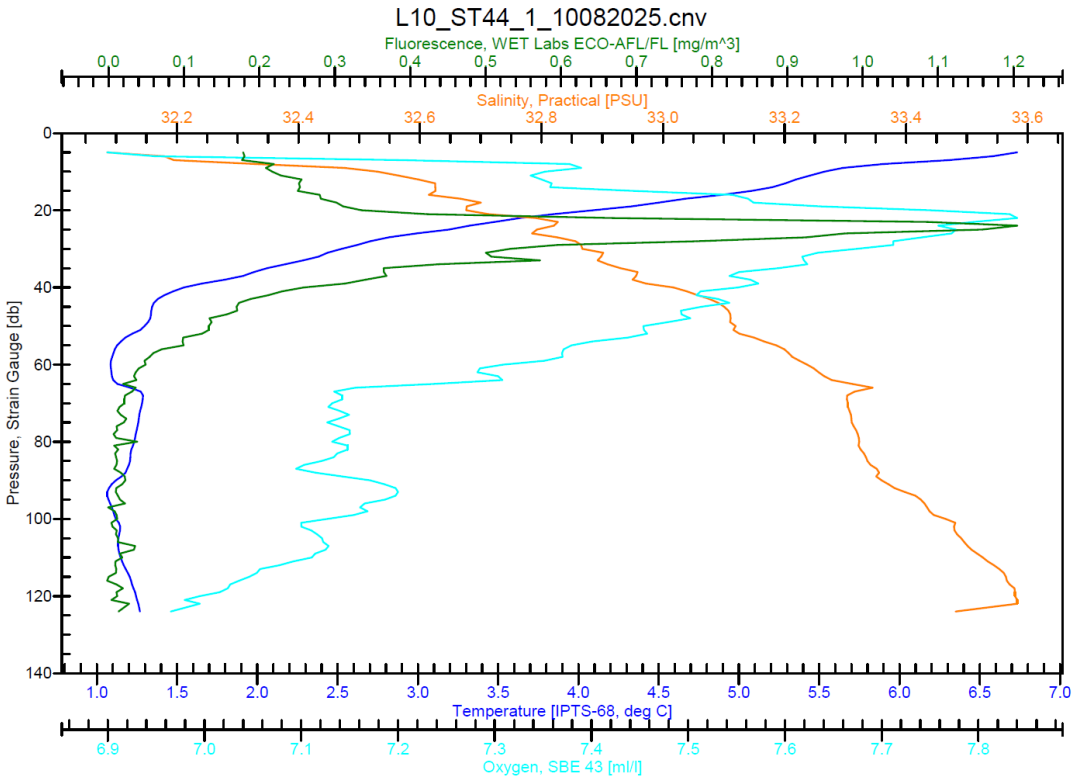
We ate breakfast, and we were all curious where we were going. During our first watch (Blue Watch), it was calm and peaceful. Some people still went up into the rigging. After the first shift ended, we ate a nice lunch and started our lecture. Throughout the day, the Social Media team took some videos of students to welcome new students to UiT. Around 3 pm we had the polar baptism.

Everyone stood on the deck and we were greeted by a pirate song and an epic speech from Neptune himself. We were instructed to stand in line and dress in clothes that could get wet. Then we went up to the bridge, where we had a very disgusting drink (we had to stand on one leg while drinking). Then we sat down in a chair and got a shave, a haircut and face paint. Then we went back down to the main deck, where a small pool



Route on August 10th, 2025

Station coordinates: 65°42’08”N 054°20’59”W, Start time (UTC 19:51)



Today’s CTD profile shows how key oceanographic parameters vary with depth. Temperature (blue line) starts around 6.8 °C at the surface and decreases steadily to about 1 °C at 140 m depth, indicating a thermocline between 20 and 60 m. Salinity (orange line) begins near 32.2 at the surface and increases to about 33.6 at depth. Oxygen (cyan line) is highest at about 25 m depth at roughly 7.8 ml/l and declines to about 6.9 ml/l deeper down, reflecting reduced oxygen in deeper waters. Fluorescence (green line), a proxy for phytoplankton, peaks at about 25 m depth at approximately 1.2 mg/m^3 and drops sharply below 40m. Overall, the profile indicates a stratified water column with a biologically active surface layer and colder, saltier, oxygen-poorer water at depth.

was set up; Neptune and a wizard helped us into the bath, and we all got a new polar name (named after animals). Neptune even went into the bath himself. After the baptism, we went down and all warmed up a bit. After this, most of us took some time to work on the personal assignments.

After dinner, we all gathered on deck again, and we were told that we would sail to St. John’s, Canada. This option was chosen because then we would remain within sub-Arctic waters and we could all be together and keep the course going. This does mean we will cut the journey short by a week. This is very disappointing for many of the students. But everyone understands how complicated this whole situation is.

In the evening, we all took some time to work or chat about the new plans that were made. During the Blue Watch, we took some sails down and compressed the rubbish. It was a new tool that our watch leader was really keen to try out. It took some tries to get it going, but it worked really well.

Anne-Mette Bjøru during a lesson abord *Statsraad Lehmkuhl*. Photo: Karine Nigar Aarskog

Sámi Special Education: Focusing on Strengths, Not Weaknesses

Karine Nigar Aarskog

This news piece was originally published on August 13th, 2025 on uit.no.

Sámi special education emphasizes students' strengths and life mastery. Instead of a lengthy bureaucratic process, practical solutions are prioritized.

All education in Norway aims to make students independent and prepared for life. In Sámi core areas, this is clearly reflected in the Sámi concept of "Birge", which means managing on one's own with support from others.

"In Sámi education as well, the goal is for everyone to become independent and gain life skills that enable them to establish a good life after schooling," says university lecturer Anne-Mette Bjøru at UiT.

She researches, among other things, the Sámi approach to inclusion and adapted education and is one of the instructors in the student course Arctic Future Pathfinders aboard the *Statsraad Lehmkuhl*.

Strength-Based Pedagogy in Practice

Together with Anne Randi Solbakken, Bjøru has authored the research article «Birgejupmi –Life Mastery, the Sámi Approach to Inclusion and Adapted Education» which she uses as the basis for her lecture aboard the *Statsraad Lehmkuhl*.

The article is based on information from a teacher in a Sámi core area. According to this teacher, the focus in these areas is not on students' challenges but rather on what they excel at. One example is a girl with Down syndrome who was able to develop her talent for handicrafts at school.

In the Norwegian school system, special education measures often require a diagnosis and a bureaucratic process through the Educational-Psychological Service (PPT). Sámi special education differs from this by being more focused on the strengths and mastery of the children involved.
Photo: Syda Productions / Mostphotos

Anne-Mette Bjøru is working as a university lecturer at UiT The Arctic University of Norway. Photo: Karine Nigar Aarskog

"She worked a lot with beadwork and small side projects because that was her strength. Eventually, she started selling her products and now has an income. She is self-sufficient," says Bjøru.

Diagnoses Are Not Necessarily a Challenge

In Sámi culture, diagnoses – like ADHD – are often seen as a resource, not a hindrance. Instead of medicating the students, the schools often choose a practical approach.

"It's a slightly different mentality. Having special educational needs is not necessarily a catastrophe. It can also be a gift," emphasizes Bjøru.

She believes this approach contrasts with the Norwegian model, where special education measures often require a diagnosis and a bureaucratic process through the Educational-Psychological Service (PPT).

"To get resources, you first have to identify what the problem is. In Sámi pedagogy, it's about focusing on strengths from the very beginning," explains Bjøru.

Close Bonds and Collaboration

Another key aspect of Sámi education is the strong relationships between the school, family, and local community.

"In small communities, everyone knows each other. Teachers know the parents and the network around the child. This makes collaboration and planning easier," says Bjøru.

She believes Norwegian educators can gain a new perspective on special education by learning from Sámi pedagogues. She has experienced this herself.

"What I've learned about Sámi pedagogy has shaped my own thinking about special education. It's about focusing on strengths and finding practical solutions that foster mastery," says Bjøru, adding:

"The goal of education is to create independent individuals who can manage in the world. Sámi pedagogy shows that there are multiple paths to learning – and that every student has something unique to contribute."

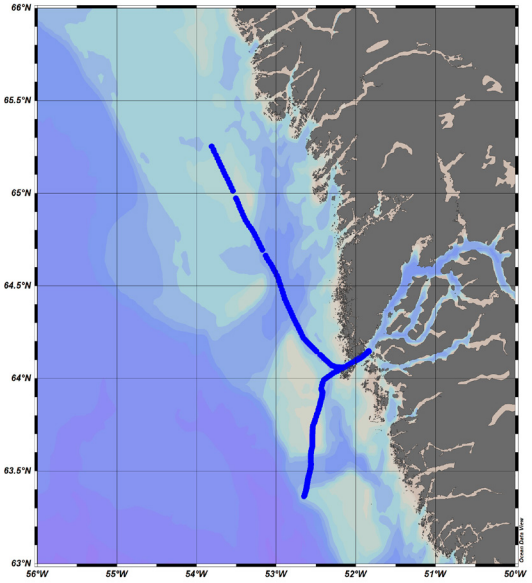
Students from the red watch up in the rig and learning how to fold the sail correctly.
Photo: David G. Buendia

Return to Nuuk and further south, 11.08.2025

Christine Körner

Location: 63°29’ N, 52°35’ W (19:37)

The night had been calm, and when the Blue Watch took over at 8 am, *Statsraad Lehmkuhl* was sailing slowly towards Nuuk in Greenland again. Soft rolling hills could be seen on both sides of the ship, partly hidden in the fog, and small icebergs were floating out of the fjord. The MOB (man overboard) boats was prepared to transfer some of us to Nuuk. Since we had changed our course and plans, the ice pilot was leaving us, as well as the CEO of the *Statsraad Lehmkuhl* foundation and a couple of students. It was a sad moment to see our colleagues leaving in the two red MOB boats. The rest of us are still on board and we are in a good mood because we still have more than one week during which we will sail through the colder part of this planet.



Route on August 11th, 2025

Delphine Gilliard (to the left), Ingeborg Hove Gusdal, Hannah Thommessen, Laurien de Korte and Yara Nieuwenhuis ready for their night shift. Photo: Karine Nigar Aarskog

After one and a half hours, the MOB boats were back and, after they had been hoisted and secured on board again, we continued sailing towards St. John's in Canada.

Red watch
Lihong Zhou

For the Red Watch, the working hours are 00:00–04:00 and 12:00–16:00, so we started our day at midnight. Today was different from before, because the night was longer and darker. We could barely see anything, so more lights at the lookout point were turned on, rather than just one. We got the chance to visit the cabins and areas only open to the crew members, and the storeroom.

During the 12:00–16:00 shift, we were lucky to have nice weather again, with a calm sea, a sunny day and warm temperatures. We went aloft to learn how to release the sails, fold them and secure them. In addition, we had a more detailed explanation of the sails of our boat. We ended our shift by turning the yards. The White Watch continued our work by setting the sails.

During dinnertime, a whale appeared in our sights. All the watch hauled on the lines together to set the sails. We sang in chorus, led by the captain. The sad thing is that two of our watch members left our watch team today due to physical and mental health issues.

When the weather is good, the classes are held outside. Like this, about Arctic Government from an indigenous perspective. Photo: Karine Nigar Aarskog

We have seen each other at our worst – seasick, tired, and hungry

Karine Nigar Aarskog

This news piece was originally published on August 10th, 2025 on uit.no.

The students aboard the *Statsraad Lehmkuhl* have mixed feelings about the ship having to turn back and not being able to sail through the Northwest Passage.

"This was a dream for me. I was looking forward to experiencing the Arctic and seeing the wildlife there. But nature decides. It's a reminder that we can't control everything", says Delphine Gilliard from Switzerland, who is pursuing a PhD in marine geochemistry at the University of Lausanne.

She stands on deck with the others from the blue watch team. It's just past eight in the evening, and the team has just started their shift. Everyone on board is divided into three different watch teams, working four-hour shifts around the clock. During their shifts, they hoist sails, perform fire watch, stand lookout, steer the ship, or handle other tasks.

No going through the Northwest Passage

Earlier today, the students received the news that they would not be sailing through the Northwest Passage. Naturally, this has caused some disappointment.

"We were super excited about the whole package. This is a unique opportunity to learn about the Arctic and Indigenous communities and to gain an interdisciplinary perspective. It's disappointing that we can't complete this part of the journey", says Hannah Thommessen, who is pursuing a master's degree in Arctic animal physiology.

Bálint Timári coiling a rope on a sunny day.
Photo: Mathieu Roy

She highlights, however, that the intense experience of being together on a ship—sharing meals, attending classes, sleeping in hammocks next to each other, and being seasick together—creates strong and valuable bonds.

"We have seen each other at our worst – seasick, tired, and hungry. It has really brought us together. Now that we're starting to get to know each other, it feels like we can truly begin to share and learn from one another" says Thommessen.

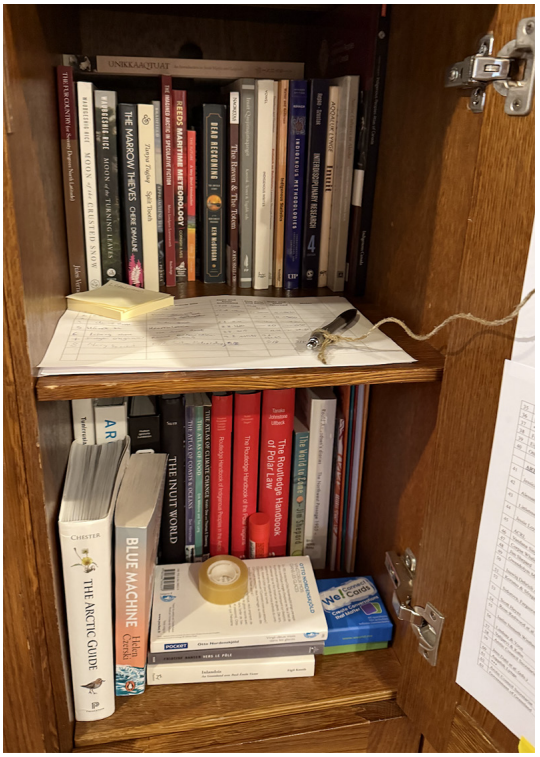
Learning and reflecting together

And that is precisely the idea behind the course: that being aboard a sailing ship in Arctic surroundings will give the students an even greater opportunity to learn and reflect together.

"Through a physical and practical approach, the students have the chance to learn about the Arctic's history, nature, and societies directly from local knowledge holders, including representatives from both Sámi and Inuit communities", says course leader Melania Borit.

Every day, the students have two hours of lectures covering topics ranging from politics,

The students sleep in hammocks, study together, eat together and work together.
Photo: Karine Nigar Aarskog



In one of the closets, there is a library. Photo: Karine Nigar Aarskog

biology, health, and law to logistics, safety, and Arctic ice conditions. The course also focuses on long-term thinking, challenging students to imagine what the Arctic might look like in 25 years. The idea is that through teaching, exercises, and collaboration, they will develop solutions for a desired future for the region.

"Sleeping closely together in hammocks, collaborating with knowledge holders, and reflecting on the future of the Arctic provides a unique experience that cannot be replicated in a classroom", says Borit.

They also learn from each other in other ways. For instance, a sheet is hung up in the mess hall where those who want to can write the "word of the day" in their own language. Today, the word is "sailboat," or "Segelboot" in German, "purjelaev" in Estonian, and "borjjasfanas" in Northern Sami. And in several of the sessions, it's about sharing one's own experiences and reflections and listening to others'.

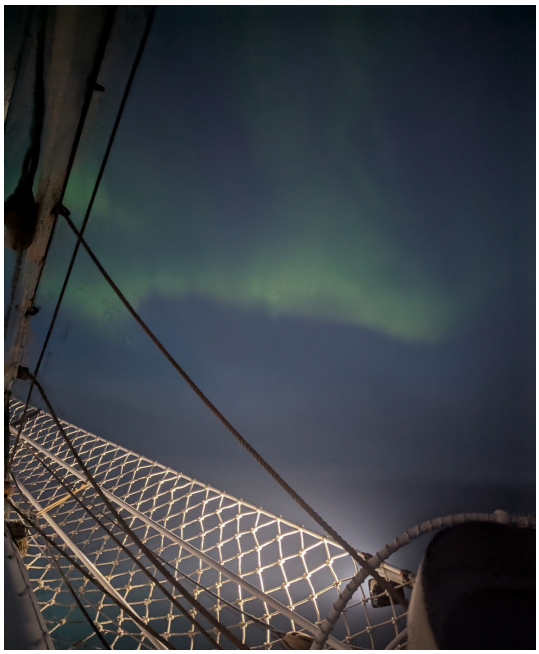
Nature decides

The fact that the planned journey through the Northwest Passage will not happen has also led to other reflections among the students:

"Ultimately, nature decides what we can do, and that's how it should be. It reminds us to be humble and that we cannot conquer everything", says Laurien de Korte, who is pursuing a PhD at UiT on adapting to climate change.

Hannah Thommessen also emphasizes that she finds it very positive that several lectures include topics such as Indigenous storytelling and its significance as a flexible and artistic form of expression.

"I found it very interesting to learn about how storytelling is used as a way of expression and how it's not set in stone. It's a completely different way of thinking", says Thommessen.



Northern lights during red watch night shift. Photo: Amund Bådsvik

The content is relevant

Even though the Northwest Passage will not be part of the journey, the students still see the value in the course.

"The content of the course is just as relevant, no matter where it's taught. Being in the Arctic would have been a bonus, but the learning can still happen", de Korte points out.

And the camaraderie on board remains a significant part of the journey. Clément Masse, who is pursuing a PhD at the University of Oulu, looks forward to delving deeper into the course content and learning more from each other:

"We've just started to get to know each other in a more trust-based way, and I really hope we have time to let this flourish", says Masse.

"Even though the red watch night shifts sometimes were hard, It gave us some beautiful moments, like the night we got northern lights and the ocean was quiet".

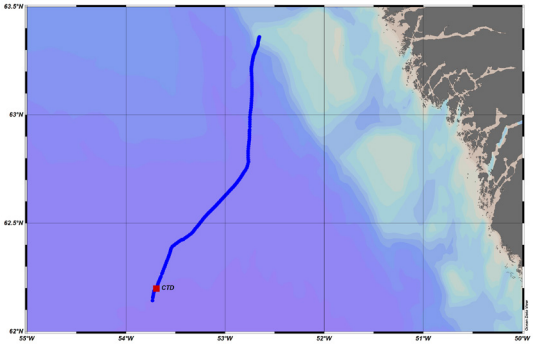
Members of the Blue Watch exercising below deck between shifts and lectures. A fun way to bond and unwind during the voyage. Photo: Hannah Thommessen

Towards St. John's, 12.08.2025

Lilja Ljetoff, Julie Bremner

The Red Watch started at 00:00. The moon was orange, and the sky clear enough that we could see stars and, as a gift, some Northern Lights. The night was calm, with only a little wind. Therefore, we had to use the engine to continue. In the morning, the White Watch put up almost all the sails, and most of them are still up now at 19:21. The captain gave us a brief update and mentioned that we're moving at about 5 knots, even though it doesn't feel like the ship is moving at all. The sea is still very calm, and the sails are to be taken down again. The next stronger winds are said to be coming around Thursday or Friday, according to the weather charts.

The Blue Watch woke at 7.00 am, had breakfast, and was on deck at 8.00 am for the first watch of the day. Calm seas, light



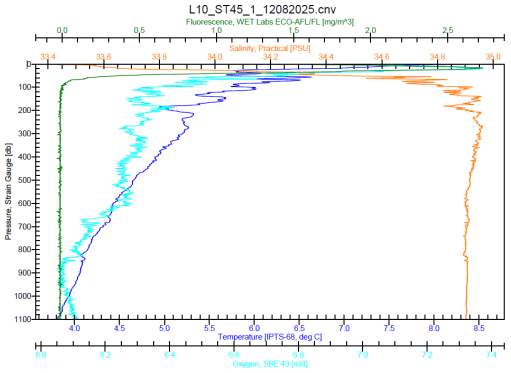
Route on August 12th, 2025

breeze, sunny. Several in our watch took the opportunity for rig training. We climbed the main and fore masts, with some going all the way to the highest yards. From there we saw many whales. Two whales (perhaps minke whales) came next to the ship on the port side; from above, their entire silhouettes were visible. There was a lot of joy at seeing so many whales. We untied the sails for the next shift to set them. Many spent their free

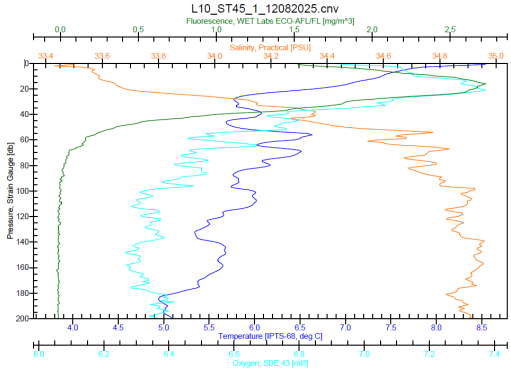
time during the day on deck, enjoying the sunshine and frequent visits from whales. The evening watch began at 8.00 pm; seas still calm, with a light breeze that increased slightly over the course of our four-hour watch. We set all the staysails and worked efficiently as a team. I spent a shift on buoy watch and enjoyed seeing six or more fin whales on the horizon for over an hour. Near the end of our watch, several pilot whales came very close; it was great to see so many so close. There was a spectacular sunset, then moonrise. Clouds began to close in on the horizon, and it got properly dark by the time we changed shifts at midnight.

Blue Watch members practising their knot-tying skills in preparation for the on-board competition, helping and learning from each other. Photo: Hannah Thommessen

Station coordinates: 62°11’51”N 053°41’36”W, Start time (UTC 21:38)



CTD profile of station 45 on 12 August 2025. This is the entire profile for the full water depth of 1,100 m. The detailed profile for the surface water can be found below.



Detailed CTD profile from station 45 showing vertical distributions of temperature (blue), salinity (orange), dissolved oxygen (cyan) and fluorescence (green) as a function of pressure (depth). The water column exhibits a cool surface layer (approximately 8.5 °C) that gradually decreases to approximately 5 °C at 200 m, while salinity increases from approximately 33.4 near the surface to approximately 34.8 at depth. Oxygen concentrations decline from approximately 7.4 to 6.4 mL/L with depth, and fluorescence peaks in the upper 40 m, indicating a surface phytoplankton layer.

Course participants pulling ropes during sailing. Photo: Karine Nigar Aarskog

UiT will be disembarking in St. John's, Canada

Karine Nigar Aarskog

This news piece was originally published on August 11th, 2025 on uit.no.

The first part of the student course Arctic Future Pathfinder will be completed in St. John's, Canada. The sailing ship *Statsraad Lehmkuhl* will continue to Bermuda without students and researchers on board.

On August 9th, it was announced that the sailing ship *Statsraad Lehmkuhl* will not be able to sail through the Northwest Passage, a journey that has been planned for two and a half years. Although ice charts for large parts of the route have looked promising, recent data shows that upcoming ice conditions could exceed what the ship is certified for. This is particularly true in the western part of the Arctic in Canada, where ice melting has been delayed compared to normal, and uncertainty about the conditions in the coming weeks remains high.

The leadership at UiT The Arctic University of Norway has now decided that the students and researchers on board will disembark in St. John's, Canada.

"Arctic Future Pathfinders is a course about the Arctic, where the original goal was to sail through the Northwest Passage and witness the nature, wildlife, and effects of climate change firsthand. The Indigenous perspective is also central to the course. Therefore, completing this first part of the course in St. John's, in collaboration with Memorial University of Newfoundland, is a good solution," says Jørgen Berge, Vice-Rector for Research and Development at UiT The Arctic University of Norway.

The sailing ship will arrive in St. John's on August 20. From there the students will fly home.

Director of the *Statsraad Lehmkuhl* Foundation Haakon Vatle (to the right) together with the ice pilot Stephan Guy. They both disembarked in Nuuk. Photo: Karine Nigar Aarskog

"We would have loved to sail through the Northwest Passage, but we never compromise on safety. It is great that UiT has found a good solution to complete the first part of the course in St. John's. The students have shown great adaptability and engagement, and the experience of working and living closely together on board provides valuable learning that I am confident will be useful for them in the future", says Haakon Vatle, expedition leader and director of the *Statsraad Lehmkuhl* Foundation.

UiT will not be aboard on the next leg

The voyage began in Nuuk, Kalaallit Nunaat (Greenland), on August 5, with plans to sail through the Northwest Passage and arrive in Iqaluktuuttiaq/Cambridge Bay on August 29th. There, students from the first leg of the journey were to disembark, and a new group of students was to board for the next leg to Whittier, Alaska, with an arrival date of October 4th.

The student course is part of the One Ocean Expedition, which spans an entire year, sailing from Bergen to Bergen. *Statsraad Lehmkuhl* is now heading south to fulfil as many of its commitments on the U.S. West Coast as possible. The current plan for the ship is to arrive in Bermuda at the same time it was originally scheduled to reach Iqaluktuuttiaq/Cambridge Bay. From there, the ship will sail through the Panama Canal to Los Angeles and continue to Vancouver, arriving as planned in mid-October.

"We are continuously working on finding a solution for the students who were supposed to board in Iqaluktuuttiaq/Cambridge Bay. We have decided that we will not participate in the leg from Bermuda to Vancouver, so the course will be held elsewhere on land, in the Arctic. At this time we don't know where, but we will figure out the next couple of days," says Berge.

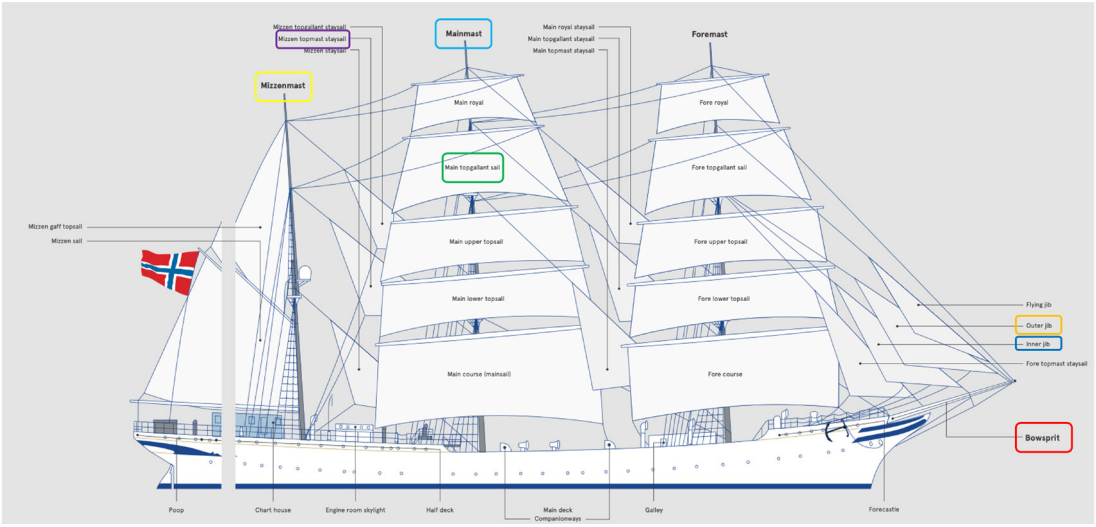


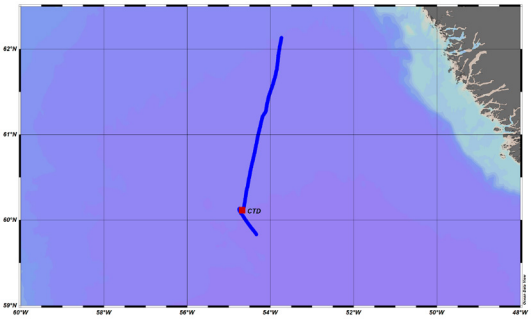
Figure 1: Ship's major above-deck components (modified from the English Handbook of *Statsraad Lehmkuhl*, 2021).

Already one week at sea, 13.08.2025

Emeric Babut du Marès, Sofia Lorenzo Broderstad, Lisell Øyjordet

After a sunny day, the mist took over the sky early this morning. According to Able Seaman Laurits from the Blue Watch, visibility was approximately 300 metres. It was also raining, which made the deck slippery. The temperature was around 4°C. Watches went on as usual: first Red Watch 00:00–04:00, then White Watch 04:00–08:00, and Blue 08:00–12:00, and then Red again, and so on.

In the morning, the boat switched from wind and electrical power to diesel power. Because of this, the first task of the day was to tie up some of the staysails that had been used during the night. Blue Watch spread out into three different groups to achieve that task: one group went aloft on the Main mast (Fig. 1, boxed in light blue) to tie the Main topgallant staysail (Fig. 1, boxed in green); another went to the Mizzen mast (Fig. 1, boxed in yellow) to tie the Mizzen topmast staysail (Fig. 1, boxed in purple); and the last went out on the Bowsprit (Fig. 1, boxed in red) to tie the inner jib (Fig. 1, boxed in dark blue) and the outer jib (Fig. 1, boxed in orange).



Route on August 13th, 2025

In the meantime, whales started to appear. Two harbour porpoises were observed on the starboard side (Fig. 2). According to The Arctic Guide (Chester, 2016), character traits and habitat seem to fit with the species harbour porpoise. They are often associated with the waters west of Greenland (Fig. 3). Other unidentified whales were also spotted by the buoy watch and other trainees during the morning watch.

Figure 2: Representation of a harbour porpoise. Source: NOAA Fisheries (last updated: 3rd April 2025).

Figure 3: World map providing an approximate representation of the harbour porpoise's range. Source: NOAA Fisheries (last updated: 3rd April 2025).

As I observed the ocean and the mist preventing us from seeing further, I was wondering how amazing it is that life has appeared on Earth after billions of years of just the ocean. Everything started with the ocean and marine organisms so small that we cannot see them with our eyes. And evolution is the incredible and slow process that has led us to the present. While this is known, we sometimes need to be confronted with nature to understand how precious life is." Emeric Babut du Marès

On a scientific note, water isotopes were sampled in the lab this morning, as usual. Around 5 pm, the crew, together with the science coordinator, Lucie, decided to stop for Station 46 (Fig. 4). Chlorophyll a and Particulate Organic Carbon (POC) were taken from Niskin bottles on a CTD rosette, along with salinity, temperature, depth, pH, pressure, oxygen, fluorescence and PAR.

Finally, phytoplankton were also sampled with a zooplankton net. The station depth was 1,100 metres, with a total water depth of 3,000 metres. Figure 4 shows the CTD profile from Station 46, including metrics of salinity, temperature, PAR and fluorescence. The profile shows a fresher and colder upper layer in the water column from 0 to 50 metres. At 50 metres there is a narrow layer with warm and salty water. From 110 metres depth to 1,100 metres, the salinity and temperature gradually decline, indicating a change of water mass.

Antarctic snaggletooth, Borostomias antarcticus (Fig. 5), was captured in the phytoplankton net. This species belongs to the dragonfishes/snaggletooths and not the lanternfish group, which is the most

Station coordinates: 60°6'53"N 054°40'38"W, Start time (UTC 17:49)

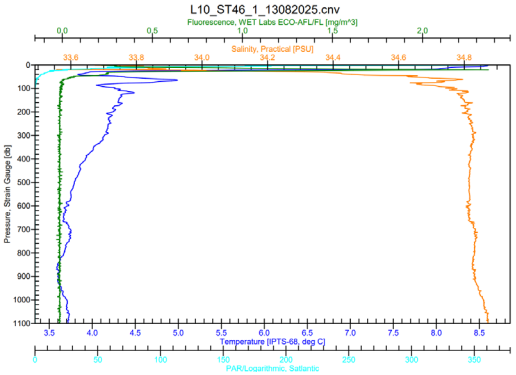


Figure 4: CTD profile at station 46, with metrices including fluorescence, salinity, pressure and PAR.

Figure 5: Antarctic snaggletooth (*Borostomias antarcticus*). Photographer: Lisell Øyjordet.

abundant fish group in the world. It is a mesopelagic fish, meaning it lives where irradiance is less than 1%, at approximately 1,000 m depth, also known as the twilight zone. According to one of the educators on board, it is rare to catch this fish in these waters. The species is an Atlantic fish, brought to the Davis Strait by the West Greenland Current (Fig. 6). The Antarctic snaggletooth can migrate from 1,000 m to 50 m to forage and has the ability to dislocate its jaw to eat large prey. This adaptation ensures it can remain in the dark zone of the pelagic. Someone on board was bitten by the fish!

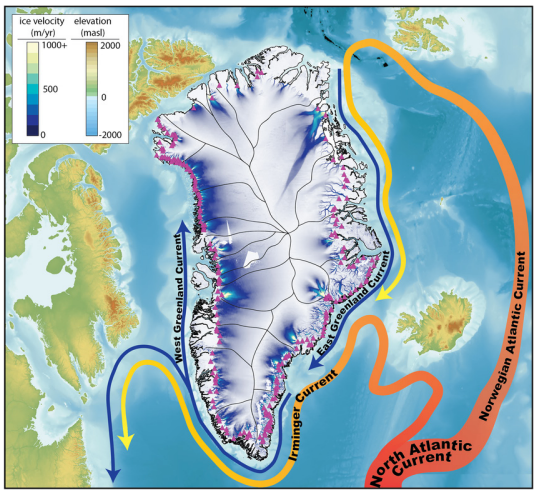


Figure 6: Greenland with the Greenland Ice Sheet situated in the Arctic. Ocean currents around Greenland are shown. The size of ocean current arrows indicates water mass; the colour of arrows indicates heat transport (Catania et al., 2020).

In the afternoon, as there was no class, some people gathered in the fore banjer (where people eat and the Blue Watch sleeps). Music was played with a guitar; people were singing, knitting, playing cards, laughing, or writing in their notebooks. Others were enjoying a bit of rest in the aft banjer. One thing is sure: there was a good mood!

Eventually, the sun started to appear in the afternoon, but the mist was still there. In the evening, the captain gave his daily talk and announced to us that we were close to leaving the Greenland waters.

After that, the mist came closer to the boat, diminishing visibility to less than 100 metres from the boat. Rain started to fall, and the deck was completely wet. But eventually a small group of people from the Blue Watch was heard singing and dancing on the deck around a speaker, cheering up trainees' hearts in that weather. Later, Yara Nieuwenhuis from the Blue Watch gave a peer-teaching talk about fish in Finnish and Russian rivers impacted by climate change and anthropogenic factors. What a good watch!

On this day, we also wished a happy birthday to Maxime Geoffroy!

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Chester, S. (2016). The Arctic Guide: Wildlife of the Far North. Princeton University Press. https://doi.org/10.2307/j.ctt1bmzkh1

NOAA Fisheries. (2025, April 3). Harbor porpoise (*Phocoena phocoena*). U.S. Department of Commerce. Retrieved November 5, 2025, from https://www.fisheries.noaa.gov/species/harbor

At the research stations, Maxime Geoffroy (to the right) is doing sampling with a zooplankton net. Photo: Karine Nigar Aarskog

Scientists Discover Fascinating Lanternfish in the Twilight Zone

Karine Nigar Aarskog

This news piece was originally published on August 14th, 2025 on uit.no.

A team of researchers recently captured a remarkable mesopelagic fish, commonly known as a lanternfish. The fish, caught at a depth down to 1,100 meters, offers a glimpse into one of the ocean's most mysterious ecosystems.

"We caught this super cool mesopelagic fish," researcher Maxime Geoffroy explained.

"It's part of the lanternfish family, named for their photophores—small light-producing organs that create bioluminescence."

These fish inhabit the mesopelagic zone, a region of the ocean typically found between 200 and 1000 meters deep, where less than one percent of sunlight penetrates. The fish was retrieved using a zooplankton net, on 60 degrees north, between Greenland and Canada.

"We were quite lucky. We probably caught it at the bottom of our cast, but there was 2,500 meters of water below us", Geoffroy said.

The Lanternfish and Its Unique Traits

Lanternfish are among the most abundant fish in the world.

"Not specifically this species, but lanternfish in general is the most abundant fish stock globally," Geoffroy noted.

Despite their abundance, they are not densely packed but rather scattered throughout the oceans.

Andreas Altenburger, who is a researcher at The Arctic University Museum, studies the little creature. Photo: Karine Nigar Aarskog

"You can see them clearly on the echo sounder as part of the deep scattering layer, which is around 500-1,000 meters during the day and closer to the surface at night."

The captured lanternfish has sparked excitement among the researchers and the students on board *Statsraad Lehmkuhl*.

"They are fascinating animals. You can see this line of little photophores that create a chemical reaction, producing bioluminescence," Geoffroy explained.

"It makes sense because there's not much light in the twilight zone. We don't know exactly what the bioluminescence is for—it could be for communication or a stress response."

The fish also had striking physical features.

"It had huge teeth, about half the size of its head, and could dismantle its jaw to swallow prey much larger than itself," Geoffroy said.

"In the dark depths, where visibility is limited, they need to be ready to grab and eat anything that comes close, even if it's twice the size of their head."

A Key Role in the Carbon Cycle

Lanternfish play a crucial role in the ocean's biological carbon pump.

"These fish perform diel vertical migration, moving to the surface at night to feed and returning to the depths during the day," Geoffroy explained.

"By doing so, they transport carbon from the surface to deeper water masses, where it can be sequestered for hundreds of years."

This process begins with algae at the surface, which absorb carbon through photosynthesis.

"The lanternfish feed on animals that consume these algae, and when they migrate back to the depths, they release carbon through respiration, excretion, and other processes," Geoffroy said.

"This makes them an important part of the ocean's carbon sequestration system."

Challenges in the Arctic

Traditionally, it was believed that mesopelagic fish, including lanternfish, were absent from the Arctic due to the region's unique light conditions, such as the midnight sun.

"They are photophobic, meaning they avoid light. If there's constant light at the surface, they can't migrate up to feed.," the researcher explained.

However, this paradigm is being challenged.

"We're starting to see evidence of deep scattering layers in the Arctic using echo sounders," Geoffroy revealed.

"This suggests that mesopelagic fish and other organisms might be present there after all. Which species they are, remains to be seen."

The little fish is of the species *Borostomias antarcticus* and can be up to 30 centimetres long.
Photo: Karine Nigar Aarskog

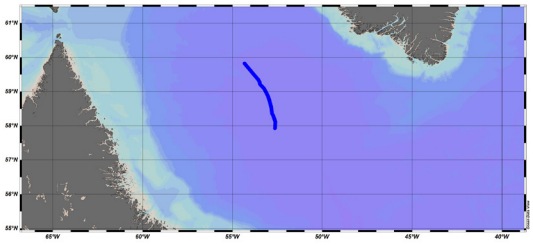
This discovery highlights the importance of studying mesopelagic fish, not only for understanding their role in the ocean's ecosystem but also for addressing the challenges they face, such as light pollution from human activities. As research continues, scientists hope to uncover more secrets about these enigmatic creatures and their place in the deep sea.

A note added for the cruise report: the Antarctic snaggletooth belongs to the family Stomiidae (dragonfishes/snaggletooths), and not to the lanternfishes (family Myctophidae).

Short break on deck during blue watch. Photo: Andreas Altenburger

Towards Canada, 14.08.2025

Ariane Cornerier



Route on August 14th, 2025

At 7.00 am, we, as the Blue Watch, were woken up by Anna's voice. I did not hear either the weather forecast or the temperature, but I guessed it was warmer than yesterday because the night was cooler. This morning, we particularly had to shower and have breakfast quickly because we had to muster on deck ten minutes to 8.00 am. It seems that time flies more quickly every day, even if we are kind of adapting to the rhythm on board. Outside, we finally discovered the weather: a generous, shiny sun surrounded by leopard clouds. The wind felt strong, but only two sails were open. Laurids and Mads, our leaders from the crew, taught us some knots. They even organised a race. Interesting exercise to get used to doing knots without even thinking about it 😊.

Later, we had to help the crew with bringing the mooring lines up on deck. Even though we are planning to arrive in less than a week, our arrival is already being prepared. The lines are heavy; we do feel our muscles while pulling them. They were like two never-ending anacondas.

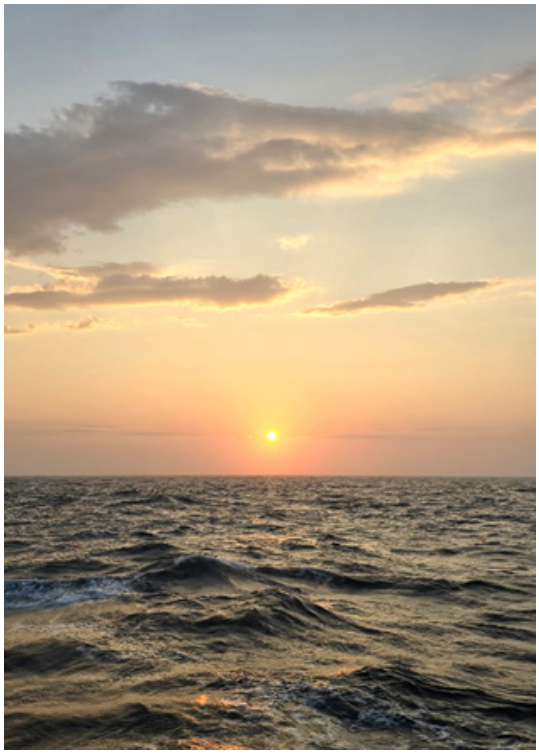
Time to muster on deck once again. To make it a bit different, we wished the Red Watch a good one in Romanian. The words do not seem to be recognised, but the message is still clear. Ready to wash our hands and go for lunch. We heard that some people were ill with the flu. We really do not want that virus to spread. We discussed whether we would prefer getting a stomach infection or the flu, if there were a choice.

The meal is nice. It is always a shared pleasure to gather in the fore banjer, to feel warm and to eat. The food is not a surprise for lunch, since it is the same as the previous day's dinner.

With no transition from lunchtime, we started a lecture on Arctic mesopelagic plankton, fish and mammals taught by Maxime. What impressive worlds those of the Arctic ecosystems are. Biodiversity is divided by two compared to tropical ecosystems, and creatures find their ways to adapt to harsh conditions. Jacob then gave us a lecture on maritime circadian rhythm, the effects on human health and adaptation to it. These lectures were dense and interesting, but our energy went down quickly as it was just after lunch. We almost all took a nap. It is usually not an easy game, since, as Blue Watch people, we do not have dedicated resting areas to have a proper sleep. It is hard to find a quiet place to feel comfortable and to fall asleep. That particular aspect is annoying and is the main challenge for us to cope with.

After dinner, there is a meeting on deck. Regular topics: organisation of life on board and course requirements. Once again, we had a chance to talk to the captain, who came at 7 pm. We had our question-and-answer session. The captain is charismatic and always finds the right word to make a joke, and then to answer seriously. We finished the session with a sea shanty to learn and sing together: 'Leave Her, Johnny'.

8.00 pm: the last muster on deck of the day. We take our positions according to schedule. At 10.00 pm, we gladly had the opportunity to have a tour of the whole ship. What a dream: being able to enter all the different areas shown in the handbook of the ship. With that perspective, the ship seems immense and so well organised. Now we know that the throwing tubes (for veggie rubbish and vomit) are nicely decorated with painted drawings representing the skin of a green dragon. The rooms at the rear of the ship were particularly impressive. These were huge, with a lot of furniture made of wood. I surely should not write that, but it made me think of the Titanic, with this association between brown furniture and white-painted walls. I guessed that this was the style of a mythic old tall ship 😊.



Sunrise in the morning. Photo: Lisell Øyjordet.

Ingeborg H. Gusdal, Norja-Celina Walther, Susanna Nemeth Winther

After being woken up by Anna, cleaning away our hammocks and enjoying a quick breakfast, as usual, the Blue Watch team made its way to the main deck for mustering at 8.00 am. Out on deck, the team was greeted by a beautiful morning sun – a joyful sight for the tired souls. The morning started calmly, with most people enjoying the sun, wind and waves. Some of the team participated in the tightening of a few ropes, some were on physical watches, and some enjoyed a much-needed cup of coffee.

As the wind was still against the ship, there were no sails to be put up, so after carrying the long "trosse" and "springer" to the deck (English names unknown at the moment), the watch leaders suggested some knot practice and testing. After having repeated some knots we had already learned earlier, the watch leaders introduced the eager participants to some more advanced knots, amongst which was one called "The God Knot" by the watch leader – a knot whose official name I cannot recall at this moment (perhaps something about slip-stop?).
The knot session continued into a knot competition, accompanied by loud cheering. And, suddenly, the time for lunch was there.

After lunch, the Blue Watch team had a lecture about Arctic fish, plankton and mammals. This was accompanied by a loud noise from an unknown machine, making it challenging to listen to what was presented by the lecturer. However, the loud rumbling could not defeat the sleepiness of a few selected individuals, who managed to give their eyes a few minutes of rest during the session. The second lecture talked about the sleep rhythm, and how it might be challenged by shift work and jet lag, as well as the consequences of this for humans. As the lectures came to an end, the coffee break provided a delicious skolebolle for the crew on board the *Statsraad Lehmkuhl.*

Unknown student from White Watch
After a stormy day, this morning greeted us first with misty darkness and later with a beautiful sunrise. The first row of staysails was hoisted during the White Watch in the early morning hours, but we sailed under engine until the afternoon.
One of the main activities of the day that kept both White Watch and the crew busy for a while was storing away all the polar-specific equipment that we had on board for the initial travel through the Northwest Passage. Not only did we transport the Group Survival Kits and the 140 (?) Personal Survival Kits from the aft banjer to the ballast, but we also had to remove the seven litres of water that were stored in each backpack. This brought back the challenging feelings that we all had to process.
Today, there has been much less observation of marine wildlife than in the last few days. Aside from a dolphin sighting, the ship has only been accompanied by the usual seabirds. Additionally, there was no scientific station stop today.

We put up the second row of staysails in the afternoon, and the day ended with sea shanties and good vibes on deck.

Sunshine during the day. Photo: Andreas Altenburger

Ana Luisa Sanchez Laws is a professor at UiT and researches identity and the experience of belonging. Photo: Karine Nigar Aarskog

Hope and Willpower Aboard the *Statsraad Lehmkuhl*

Karine Nigar Aarskog

This news piece was originally published on August 11th, 2025 on uit.no.

At the student course Arctic Future Pathfinders, academic knowledge, cultural understanding, and personal reflection are combined.

Ana Luisa Sanchez Laws, a professor of interdisciplinary methods at the Centre for Peace Studies at UiT, aims to challenge the participants of *Arctic Future Pathfinders* to think beyond traditional academic frameworks. The first day focused on creating dialogue and collaboration among the participants.

"There is an incredible amount of knowledge within the group, and my intention was to get them to talk to each other, get to know one another, and perhaps lay the foundation for future collaborations," says Sanchez Laws.

In addition to fostering collaboration, she has introduced alternative ways of understanding knowledge.

"Most people think of knowledge as academic articles and publications, but it is so much more. We are here in Inuit land, and I wanted to show them the value of storytelling and cultural perspectives," says Sanchez Laws.

For instance, Inuit stories and cultural differences were discussed, which she believes can provide students with new insights.

"These stories contain knowledge that is difficult to understand without experiencing it firsthand. It's something you can't gain just by reading an article," says Sanchez Laws.

Students Are Engaged and Challenged

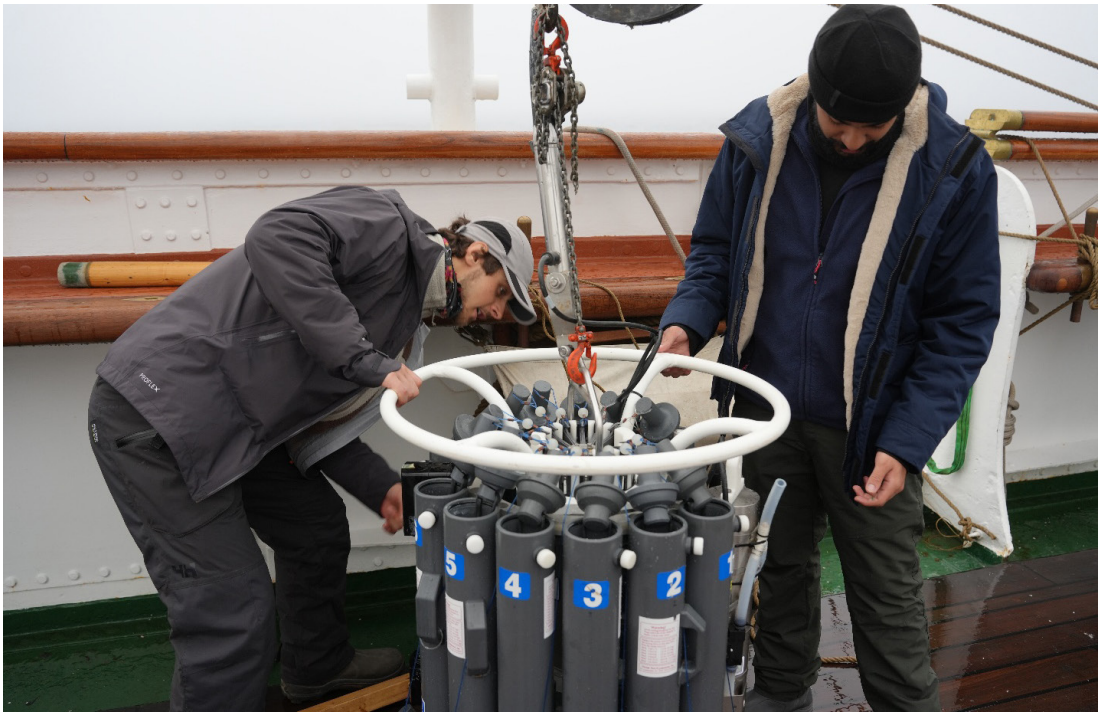
The teaching also has a broader goal: to encourage participants to reflect on how they can use their knowledge to make a difference in the world.

"A career is just a small part of it. It's about being able to convey the importance of what you do to others, whether it's through technology, storytelling, or face-to-face communication," explains Sanchez Laws.

Cultural Understanding and Hope for the Future

Despite the challenges of climate change and the world's uncertain future, the instructor has found hope in the collaboration and determination she sees in the students to make a difference.

"There is so much hope and willpower here. Even small contributions can make a difference," she concludes.



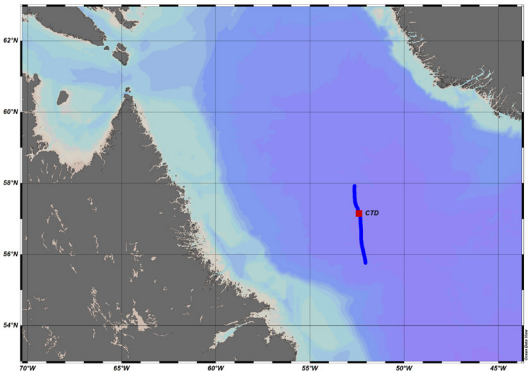
Two participants of the Blue Watch examine the CTD module before it was sent aboard for data collection. Photo: Karine Nigar Aarskog

In the Labrador Sea, 15.08.2025

Aksel Samuelsberg, Sienna Moody, Gaël Machemin, Enzo Bertaut, Ariane Barrette, Max Kelly, Justin Barnes

Today we had a station from 08:00–12:00. We dropped a 200-micrometre mesh net to a depth of 1,100 m. This is the pelagic zone, characterised by very low light levels – less than 1% of the sunlight reaches this zone. The net did not record the exact depth of capture; however, the on-board echogram indicated a distinct scattering layer between approximately 400 m and 600 m, suggesting that most of the collected organisms likely originated from this depth range. The most notable catch by the mesh net was the following:

- Lantern fish (*Benthosema glaciale*)
- A small fish, about 6 cm long, with a black-and-blue striped pattern, translucent fins and large green eyes.

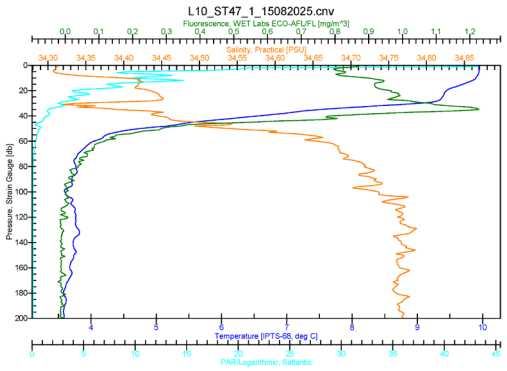


Route on August 15th, 2025

- Crown Jellyfish (*Atolla* sp.) species identification uncertain
- Red jellyfish, about 7.5 cm in diameter, with translucent to light pink tentacles.

Besides the station, we made another interesting observation today: a small bird - a red-breasted nuthatch (*Sitta canadensis*) out in the open ocean at 07:30 in the morning, observed by Hanna from the White Watch. It is probably migrating over the ocean for the winter.

Station coordinates: 57°9’5”N 052°23’54”W, Start time (UTC 09:50)



The CTD profile at station 47 shows a stratified upper water column with warm surface temperatures of about 9–10 °C that decrease steadily with depth, forming a pronounced thermocline between roughly 20 and 50 m before stabilizing near 4 °C below 100 m. Surface salinity ranges around 34.3–34.4, increasing with depth and exhibiting a mid-depth salinity maximum of approximately 34.6, before gradually approaching 34.8 in deeper waters. Fluorescence peaks in the upper 40 m, marking a subsurface chlorophyll maximum, and declines rapidly to low values below 60 m. Overall, the profile reflects a biologically active, stratified surface layer underlain a stable deep layer.

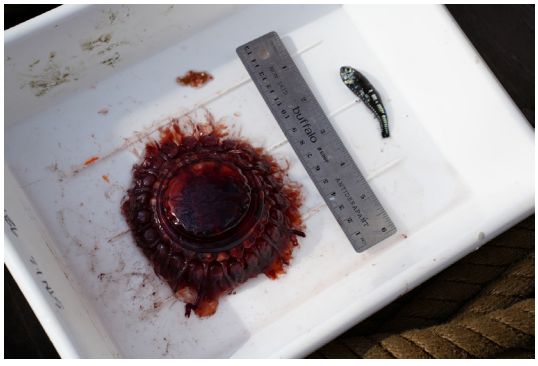
Science station

Gael took notes on sampling, noting the sampling depth (1,100 m) and coordinates (57°47’ N, 52°22’ W) at 08:49. Even though the instruments were only lowered to a depth of 1,100 metres, it’s important to note that the total depth under the sea reached approximately 3,500 m. This really puts into perspective the true immensity of the ocean and how small we are in it.

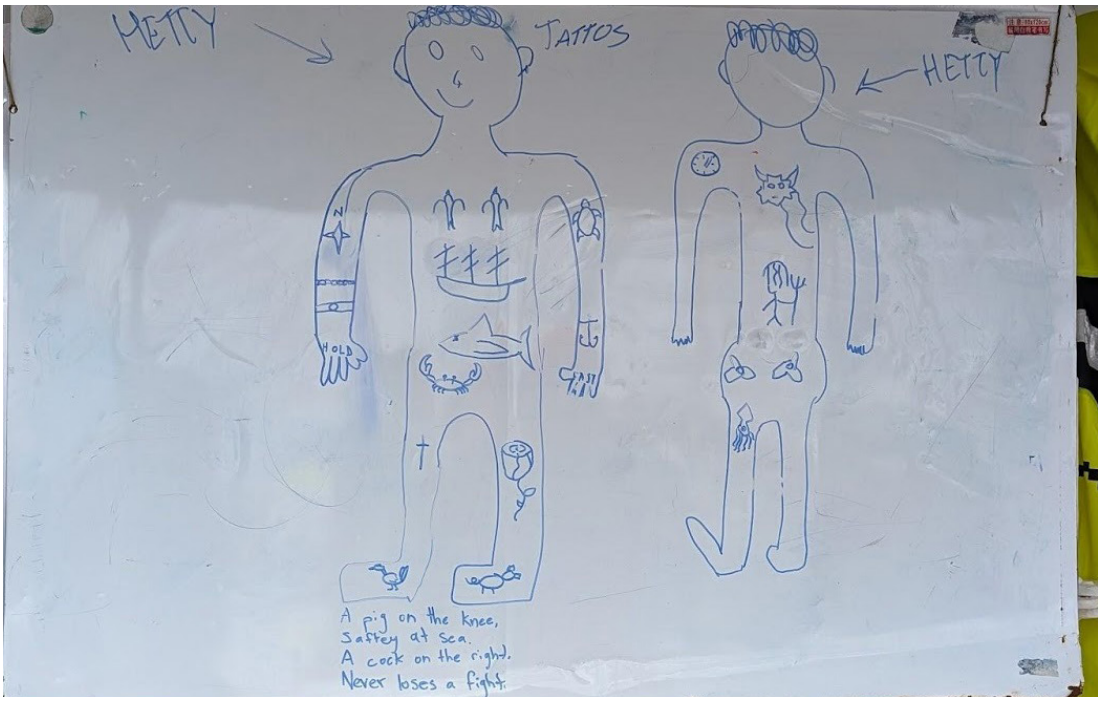
The CTD cable frayed this morning, causing a brief pause and an inspection by the engineers. This should be fixed by 17 August 2025 and will run via the winch to the lab. It is unlikely that there will be any more science stations on this expedition due to a lack of sampling permits in Canadian waters.

There was also a connection issue between the boat and the CTD. Sienna helped Mads to pull the zooplankton net. The net caught numerous copepods, small shrimp, a large jellyfish, and a small fish with very delicate scales. Enzo did the filtration of the sample for identification. There were a lot of sea worms, jellyfish and amphipod (*Themisto libellula*). According to Maxime’s lecture, this kind of shrimp is very common in the Arctic. They are very aggressive and resistant, with long arms that look like Edward Scissorhands, according to Maxime. They were still alive after the filtration.

A red-breasted nuthatch (*Sitta canadensis*) landed on ropes on the deck. The bird was likely migrating.



A round red jellyfish next to a tiny black fish in a white tray. We have identified the fish to Lantern fish (*Benthosema glaciale*) and the jelly to Crown Jellyfish (*Atolla* sp.).



Drawing depicting various tattoos sailors get when achieving milestones and for protection.
Photo: Seamus Beairsto

Morning watch

During the morning, the Blue Watch was exposed to the first strong winds that pushed the *Statsraad Lehmkuhl* south towards Newfoundland. At 14:00 the ship entered Canadian waters. However, we no longer have adequate research permits and approvals to continue the planned research. As such, we will not be conducting any additional research until further notice. Our original permits were for Nunavut, and it remains uncertain whether we will receive Newfoundland permits in time. The intensity of the winds tilted the ship slightly to port, which changed our perspective of the ship as well as our balance on it. The wind stayed strong for the rest of the day, and we were all grateful to finally experience such a sailing experience.

Afternoon

At 12:00, the Blue and Red Watches worked together to set both the main and fore sails. This was the first time people from two watches worked together on deck to get the boat sailing again. It was a fun and unique opportunity to engage in physical work with the Red Watch - a rare opportunity.

Today's class concerned taxonomy and Indigenous languages (Sami and Inuktitut). We ran over time, but discussion continued afterwards in small groups, illustrating everyone's openness to learning and sharing ideas.

White Watch

This morning, it was raining and, once the sun set, it was foggy. We played a game on deck led by volunteer Sarah. We cleaned the deck and, at the end of the watch, we braced the main and foremasts in preparation for the science station at 08:00. We also set the fore and main lower topsails, as well as the fore topmast staysail and the main topmast staysail. At 4.00 pm, we set the main topgallant sail.

Red Watch

We are sailing again, with the topgallant up on the main and four staysails. The Red Watch also did some bracing. We learned what types of tattoos sailors get when achieving certain milestones, learning about the subculture and history within the sailing industry.

The picture above depicts these tattoos, and these are the meanings prescribed to each:

- Gold earring: several meanings - used to pay to send your corpse home; used to pay for a burial if your corpse washes up somewhere; used to pay the ferryman to ferry your soul if you are lost at sea.
- Nautical star: gives good luck in staying on course and making it home.
- Swallows: you can get a swallow for each 5,000 nautical miles you have sailed.
- Sea turtle: you can get it if you have crossed the Equator.
- Chain band on arm: for longshore workers. Reef knot band on arm: for members of the deck crew.
- Hold fast across knuckles: deck crew. Term for holding sails tight.
- Ship: represents dedication to a life at sea.
- Anchor: you can get an anchor if you have crossed the Atlantic.
- Crab/Shark: good luck and resilience at sea.
- Cross: Christian faith.
- Rose: remembrance of a loved one while away for long periods of time.
- Foot tattoos: a rooster on the right, and a pig on the left. One of the crew leaders had these tattoos. I believe it is a general sailing tattoo, and goes with the saying 'A pig on the knee, safety at sea, a cock on the right, never loses a fight.' But the text is often not included in the tattoo.
- Compass: similar to the nautical star.
- Sea monster: a ward against storms and misfortune.
- King Neptune: for crossing the Equator.
- Propellers on the butt cheeks: if you are part of the engine crew. I believe one of the engineers on board had them.
- Squid: when crossing the Equator or the Arctic Circle, you go through a baptism process and are given a 'sea name', often referencing a sea creature. These are sometimes tattooed.

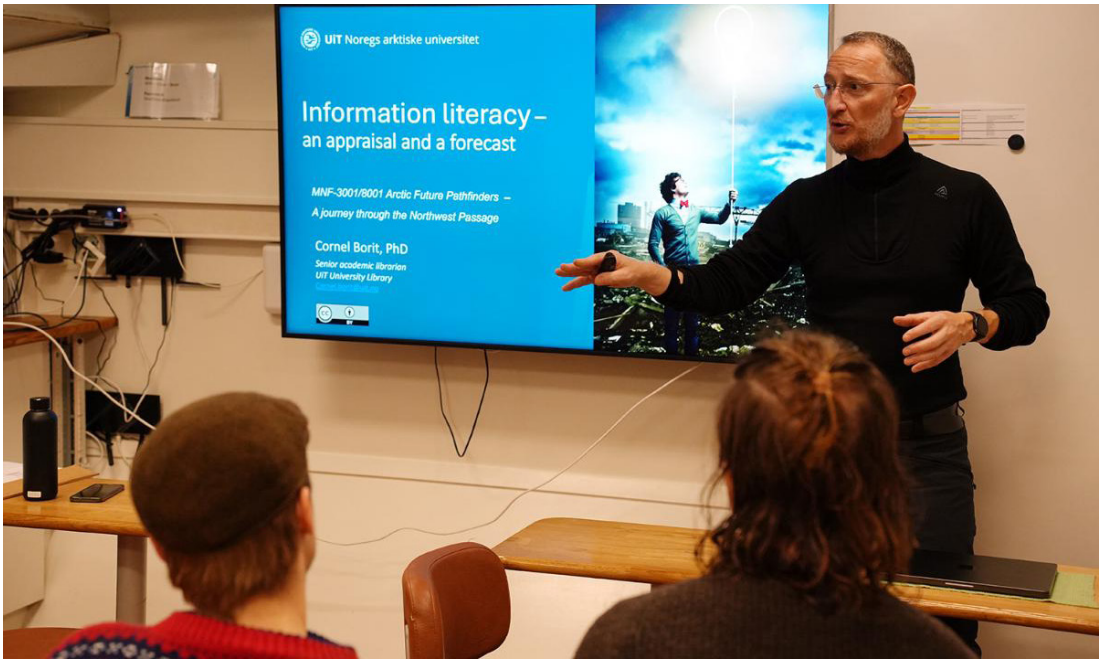
Evening meeting

At 18:40 we gathered on deck for the daily meeting. We were reminded to complete the customs declarations for Canada. We will "pack down" on the 19th prior to our arrival in St. John's on the 20th. Axel reminded everyone to upload any photos we wish to share to the drive. Tomorrow there will be two events for Sami handcrafts (at 15:00 and 20:00).

We convened in the banjer in order to listen to all the marvellous poems that were written by our colleagues. Some people read their poems aloud, and the White Watch sang a sea shanty in front of the captain. We shared a great moment, sharing our creations and diversity of inspirations.

At 20:15, Ola (White Watch volunteer) came down to play his nine-string fiddle to the enjoyment of everyone - crew and voyage crew - and it was followed by a White Watch jam session with Mathieu on the guitar. The fiddle had a dragon head on the stem.

White watch cleaning the deck in the very morning. Photo: Hanna Huntscha



From the lesson about Information Literacy. Photo: Karine Nigar Aarskog

Arctic Future Pathfinders Adapts Journey to Newfoundland, Exploring Norse History

Karine Nigar Aarskog

This news piece was originally published on August 12th, 2025 on uit.no.

Cornel Borit, the senior academic librarian from UiT who is onboard Statsraad Lehmkuhl, sees the changing of the route as an opportunity to deepen the exploration of Arctic themes, indigenous cultures, and historical connections.

The course, which emphasizes the Arctic environment and its indigenous peoples, will now incorporate a historical dimension by exploring the Norse sagas and their ties to Newfoundland. A librarian on board shared his excitement about this unexpected addition to the curriculum.

"When we decided to disembark in Newfoundland, I immediately thought of the Norse sagas about Leiv Eiriksson and the settlements in Vinland," Cornel Borit explained.

Exploring the Norse sagas

"I found some fascinating articles about the archaeological discoveries in L'Anse aux Meadows, which confirm that the sagas are rooted in historical truth. These articles are now available in the library for students to explore."

The librarian highlighted the significance of these findings:

"The research from the 1960s proved that Norse settlements existed in Newfoundland, resembling those in Iceland and Norway. It's incredible to think that the Vikings may have been the first Europeans to reach these shores."

He has made the articles available for the students in the library, which is a closet in the mass of the ship, which is staffed half an hour per day. Books and articles from the

Cornel Borit by his library, with a book about Arctic wildlife. Photo: Karine Nigar Aarskog

library can be borrowed for two hours at a time.

"This book is the most read," said Borit, holding a book about wildlife in the Arctic in his hand.

Information Literacy in the Arctic Context

A key component of the course is a focus on Information Literacy, taught by the onboard librarian. He emphasized the importance of equipping students with the skills to navigate today's overwhelming flow of information.

"We live in an information society where we face what some call an 'infodemic'," he said.

"There's so much information out there—some of it toxic, irrelevant, or even deceitful. It's crucial to develop the ability to discern fact from fiction and critically assess sources."

The Arctic setting adds unique dimensions to these lessons

"Since the course focuses on the Arctic, it's important to understand the specific rules and principles for conducting research in this region," he explained.

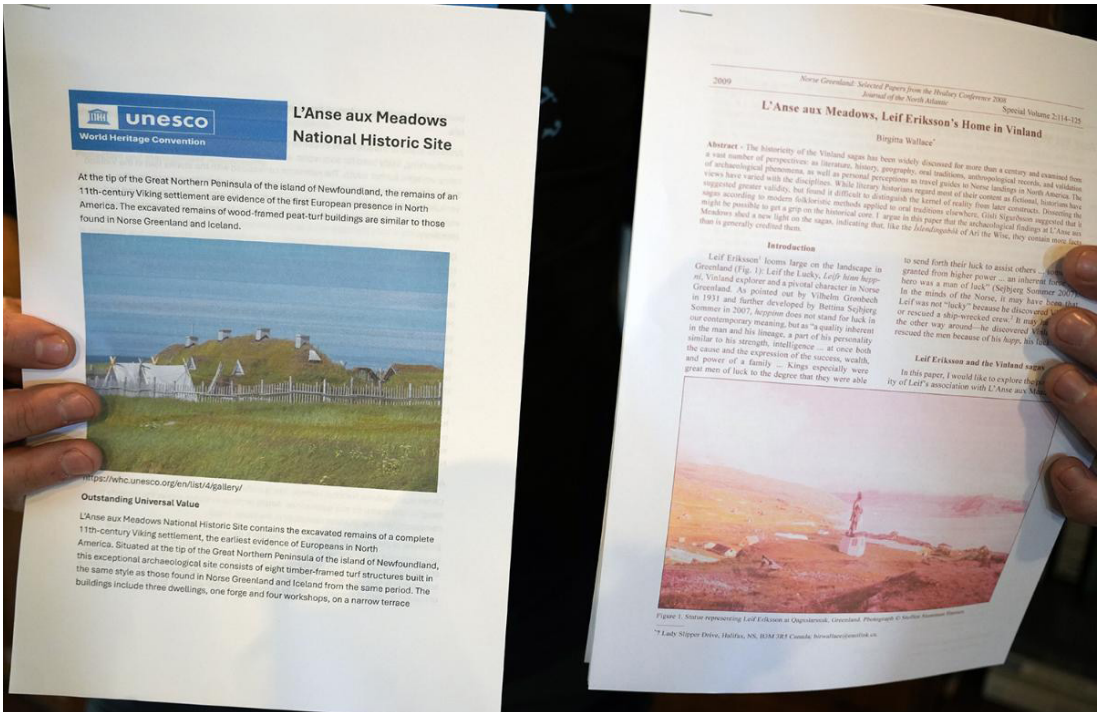
"I introduce students to the concept of Indigenous Information Literacy, which emphasizes relationality, reciprocity, and respect. Researchers must follow the CARE principles for indigenous data governance to ensure their work respects local communities and cultures."

Imagining the Future of Information Literacy

As part of the course, students participated in a workshop envisioning the future of information literacy in the Arctic by 2050. Borit described the exercise as both thought-provoking and inspiring.

"I challenged the students to imagine how information will be stored, who will control it, and how it will be used in 25 years," he said.

"Will it be used for utopian purposes to create a better society and heal nature, or will



Cornel Borit has printed the articles so it can be read by the students. Photo: Karine Nigar Aarskog

it fall into the hands of those who might use it to manipulate people? The students came up with some fascinating ideas."

Borit added, "We also discussed how to prepare for these possible futures. What skills will we need to become information-literate citizens and researchers in a rapidly changing world? It was a very engaging discussion, and I look forward to analyzing the results of the workshop."

A Journey of Discovery

The course's unexpected detour to Newfoundland has been embraced as an opportunity to enrich the students' learning experience.

"This visit will provide students with a tangible connection to the sagas and the historical narratives they've been studying," Cornel said.

"It's a perfect example of how we can use unexpected situations to find new material and create meaningful learning experiences."

As the course nears its conclusion, the organizers and students are making the most of this unplanned destination.

"We're adapting and trying to extract as much knowledge as possible from this opportunity," he said.

"It's been a fascinating journey, and I'm excited to see how it all comes together."

Despite technology, *Statsraad Lehmkuhl* has posts where people are on the lookout.
Photo: Karine Nigar Aarskog

Increased Interest in the Northwest Passage: Opportunities and Challenges

Karine Nigar Aarskog

This news piece was originally published on August 15th, 2025 on uit.no.

UiT researcher aboard *Statsraad Lehmkuhl* believes the Northwest Passage could become an attractive transport route.

"Being aboard a vessel this far north in these areas provides a unique opportunity to understand the logistical and environmental challenges here," says Associate Professor Jan-Arne Pettersen from the Department of Industrial Technology at UiT.

Pettersen specializes in transport, logistics, and supply chains and teaches the student course Arctic Future Pathfinders aboard *Statsraad Lehmkuhl*. He believes the Northwest Passage has the potential to become an attractive transport route, both economically and strategically. For instance, shorter distances and the possibility of avoiding bottlenecks like the Suez Canal could make the route profitable. However, Pettersen emphasizes that it's not just about distance.

Other Types of Risks

"A longer route can be more economically advantageous if current conditions reduce fuel consumption. At the same time, we must consider risks such as bad weather, ice, and environmental impact," he explains.

Environmental concerns are a central issue. The Arctic is a fragile ecosystem, and increased traffic could lead to severe consequences.

"If an environmental disaster occurs here,

Jan-Arne Pettersen in front of the ship *Statsraad Lehmkuhl,* where there is always someone on the lookout. Photo: Karine Nigar Aarskog

Statsraad Lehmkuhl while the ship was still on it's way to the Northwest Passage.
Photo: André Marton Pedersen

it will take a long time before measures can be implemented. The nature here is very vulnerable," warns the researcher.

Technological and Infrastructural Challenges

Technology plays a key role in ensuring safe navigation in the Arctic, but current solutions have limitations.

"Due to fog and ice, we also need manual lookouts. The technology isn't good enough to detect all dangers. There are also large areas that haven't been mapped, which creates uncertainty," says Pettersen.

Lack of infrastructure is another challenge. If a ship experiences engine failure or other problems, it could take days before help arrives.

"There are no helicopters or tugboats available nearby. The distances up here make everything more complicated," Pettersen points out.

The Future of the Northwest Passage

Despite the challenges, the researcher is optimistic about the future.

"I believe we will see a significant increase in traffic through the Northwest Passage. Improved traffic control, regulations, and technological advancements will make the route more attractive," says Pettersen.

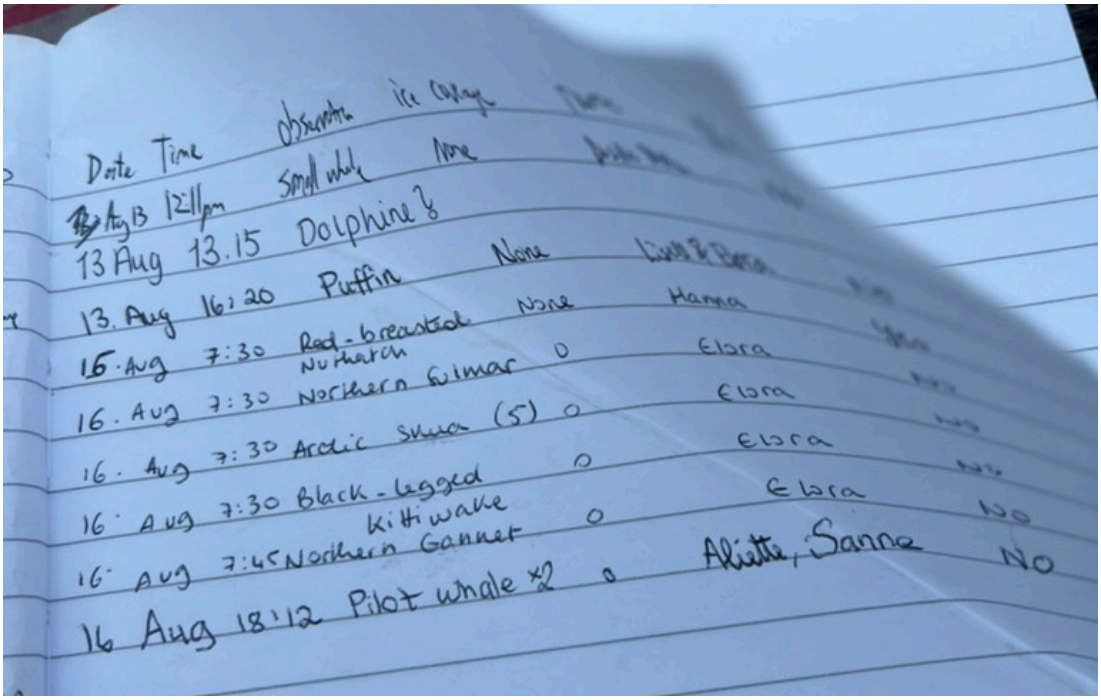
He is also confident that autonomous ships will be part of the future.

"The pace of technological development is incredible. I believe we will see autonomous systems transporting goods through the Northwest Passage within our lifetime," predicts Pettersen.

Balancing Development and Conservation

However, he reminds us that increased activity in the Arctic brings both opportunities and responsibilities. Pettersen emphasizes the need for a sustainable approach:

"It's important to develop technology and infrastructure that ensure safe and sustainable activity. At the same time, we must protect the environment and the people who live here."



Overview of the various animal encounters noted in the observation notebook today.
Photo: Hanna Huntscha

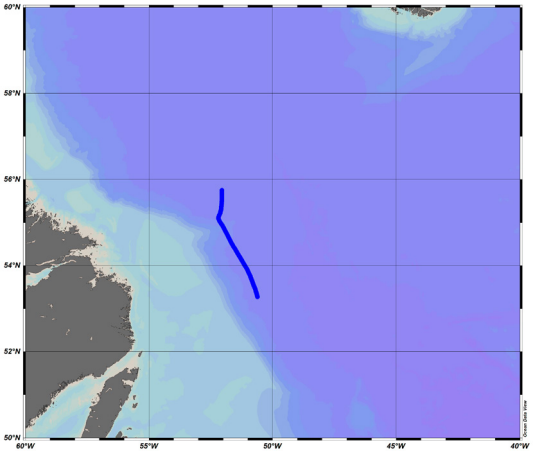
In the Labrador Sea, 16.08.2025

Aloïs Revéret, Thea Løvaas Tennøy, Ida Aamot, Elora Edon, Hanna Huntscha, Bálint Timári

Red Watch night (start: N 55°37'00", W 052°02'45")

We celebrated Nelson's birthday with a song at the buoy, and the sky was clear, giving us a great view of the stars and the moon. We had a steady wind and continued sailing southwards, altering course to the east to follow the wind change. Our watch officer, Kamilla, gave us a tour of the charthouse and its instruments, including the navigation lights. We watched the films from the last One Ocean Expedition.

It was a rainy, windy and cloudy morning, with occasional glimpses of the stars. We moved the yards to starboard tack, as the wind direction had changed.



Route on August 16th, 2025

The Chief Officer gave us a tour of the charthouse, showcasing the navigation and communications equipment. As on every morning, we cleaned the night shift's coffee cups. We had a salsa lesson from Sara. And we sang 'Happy Birthday' to Hanna.

Observations: Northern Fulmars, Arctic Skuas, Shearwaters, Black-legged Kittiwakes and Northern Gannets (07:30–08:00, ship's time).

Sitting on deck, ready to pull ropes. Photo: Andreas Altenburger

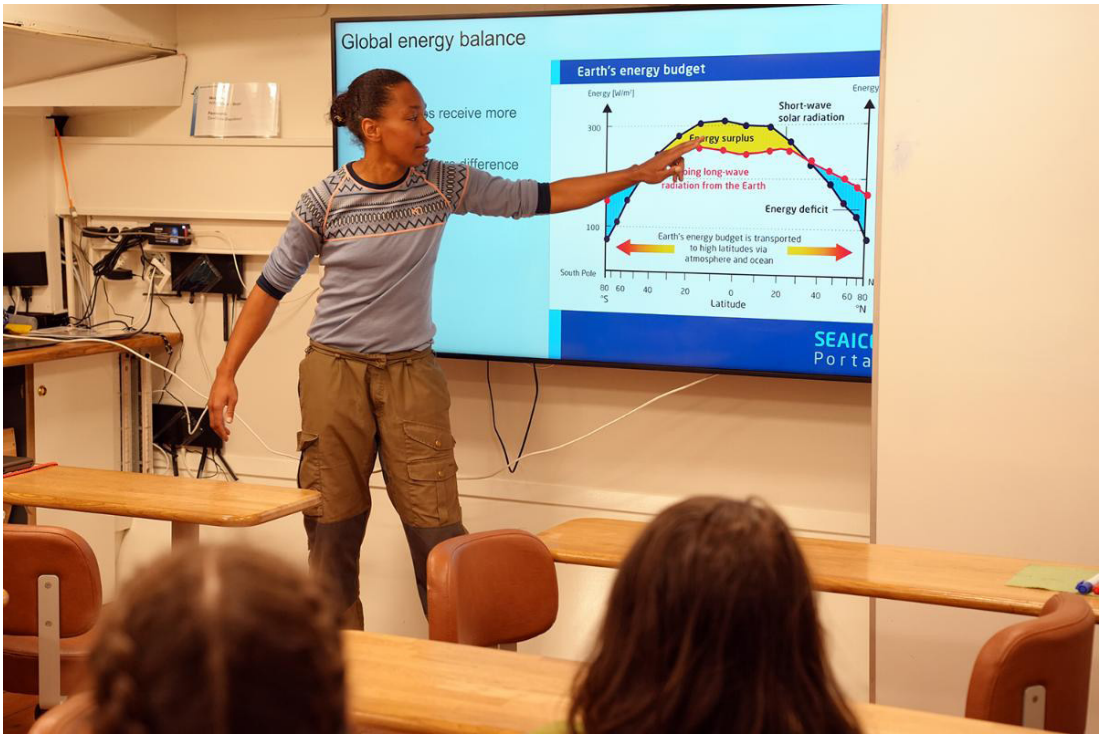
Red Watch midday (start: N 54°23'02", W 051°31'03")

We finally got to set the fore royal, and with the addition of the main course by the end of the watch, eventually we were sailing with all square sails out. The sailor's knot competition was held within the watch and designated Justin as our champion. Jan-Erik supplemented his lecture during the watch and told us about indigenous languages and the North Sámi cultural systems. We saw how the structure of a language reflects different modes of thinking, for instance with the use of the dual (instead of the singular or plural) form in many indigenous languages.

The currents were pushing us towards port side. We had to steer the ship more to starboard to hold the course at 150°. The CTD rosette and the wire are undergoing repairs, so we cannot make a station stop today, and in any case a permit from the Canadian authorities is still pending.

After the watch and our lecture, we had the 18:40 meeting. Lucie played the sound of sperm whales. It sounded like clicks; she said that the sound came from an organ that was called the spermaceti organ, located in the whale's head. This organ is filled with a waxy substance and plays a crucial role in echolocation, allowing the whales to produce and focus sound waves to communicate and hunt in the deep ocean.

Later that day, we stowed away a mainsail. Toured the engine room with the First Engineer. Climbed up the rigging, to appreciate the likely last chance when the sails were unfurled. The Captain taught us the song 'Santiana'. He also recounted an anecdote about communication on ships, using a witty story about solar eclipses. After our shift, Miyuki held a talking circle about Inuit ontology and spirituality. Observations: pilot whales (06:30, ship's time).



From the lecture abord *Statsraad Lehmkuhl*. Photo: Karine Nigar Aarskog

Less sea ice, more bergy waters

Karine Niger Aarskog

This news piece was originally published on August 13th, 2025 on uit.no.

Climate change in the Arctic is happening faster than anywhere else on the planet. Sea ice is melting, while glaciers are calving, leading to more icebergs in the ocean.

Sea ice in the Arctic is melting at an alarming rate, and this development is a clear indicator of global climate change. Rebekka Jastamin Steene, a PhD fellow at the Department of Mathematics and Statistics at UiT, is currently aboard the *Statsraad Lehmkuhl* teaching the student course Arctic Future Pathfinders. The ship was originally scheduled to spend two months traversing the Northwest Passage, which is only possible due to the reduced sea ice.

"The temperature is rising two to five times faster in the Arctic than in the rest of the world, and the change is closely linked to what is happening with the sea ice," Steene explains.

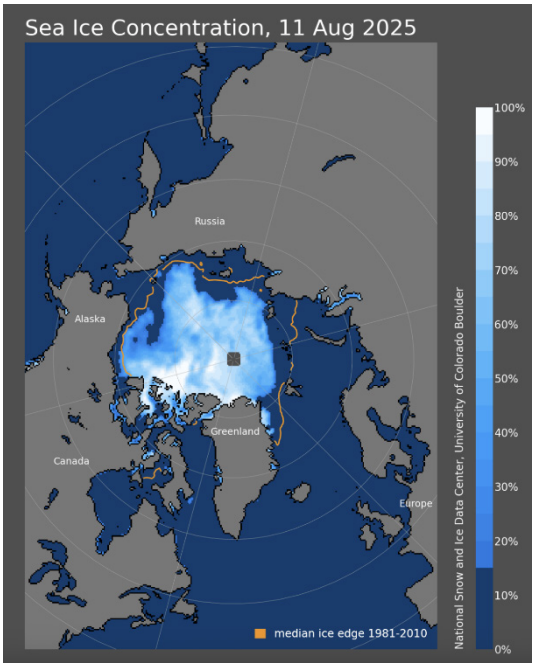
The Albedo Effect Amplifies Ice Melting

One of the main reasons for the rapid ice melting is the so-called albedo effect. When ice melts and is replaced by open water, the ocean absorbs more solar energy, which in turn leads to warming of both the water and the air.

"While ice reflects much of the sun's energy, the ocean absorbs almost all of it when the ice is gone. This warms the ocean, which in turn melts even more ice. This is what we call a reinforcing feedback mechanism," Steene explains.

This mechanism means that even small temperature increases can cause ice melting to accelerate.

Rebekka Steene is doing her research about ice. Abord *Statsraad Lehmkuhl* she is teaching the students about sea ice.
Photo: Karine Nigar Aarskog



The ice chart shows the extent and the concentration of the ice 11th of August this year, based on satellite data.
Photo: National Snow and Ice Data Centre

Dramatic Loss of Sea Ice

Since satellite measurements began in 1979, the Arctic has lost enormous amounts of sea ice.

"If you look at the trend, we have lost around 3.5 million square kilometers of ice in September, which is the month of the year with the least sea ice," says Steene.

Although there are natural variations from year to year, there is no doubt that human-induced climate change is the main driver of the long-term decline.

"It is also important to note that the ice not only covers a smaller area, but it has also become thinner. This makes the ice cover far less robust than before," Steene adds.

Regional Differences and New Challenges

There are significant regional differences in how ice melting affects the Arctic. In the Barents Sea, there is almost no ice at all during the summer, while a thin layer of ice forms during the winter. At the same time, there are still areas north of the Canadian islands with thicker ice, but even here there has been significant melting. For shipping, this has made it easier to navigate through previously inaccessible areas, such as the Northwest Passage.

"If you look at ice charts and compare them to 20 years ago, there is a clear change. It has become much easier to sail through," says Steene.

Glaciers and Calving – A New Challenge

This time, however, the *Statsraad Lehmkuhl* was unable to sail through. The reason was not sea ice, but rather icebergs resulting from calving glaciers. As temperatures rise, calving activity increases, leading to more icebergs in the ocean.

"The warmer it gets, the more active calving becomes during the summer season. This leads to more icebergs, which can be a major challenge for shipping," says the researcher.

Although calving is initially a natural process, it has intensified as a result of climate change.

The Future of the Arctic

Steene warns that the Arctic could become completely ice-free during the summer season in the future if greenhouse gas emissions are not reduced.

"It is absolutely possible that it will become completely open, at least in the summer, if we continue to emit CO_2 at the current rate," she says.

Even winter ice, which has traditionally been more stable, could be dramatically reduced.

"What we will see first is that sea ice becomes entirely seasonal. In the summer, there will be little or no ice, and in the winter, a thin one-year layer will form. Over time, even the winter ice could become smaller", the researcher explains.

She still believes it is possible to slow down the development:

"If we manage to reduce greenhouse gas emissions, we can at least stop the trend. The consequences that now seem to be accelerating could perhaps become less severe."

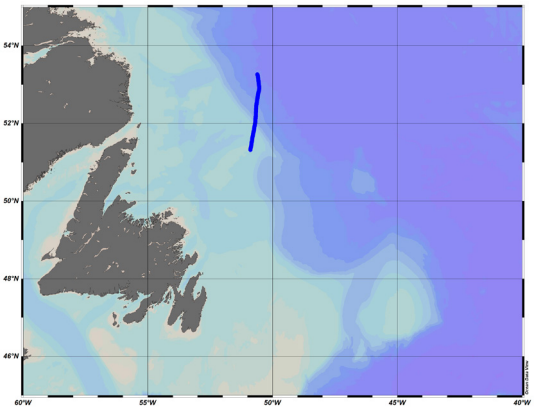
Encounter with a group of northern bottlenose whales (*Hyperoodon ampullatus*). Photo: Elora Edon

In Canadian waters, 17.08.2025

Lukas Pérez, Bálint Timári

Red Watch, 00:00–04:00
Pitch dark. We were almost completely unable to see anything, especially during our lookout duty. The atmosphere on board was calm and quiet – only the occasional laughter of the fulmars circling the vessel was noticed, along with the calm swooshing of the waves.

That night gave all of us a better understanding of the interests and research topics within the Red Watch. I think I speak for everyone when I say we learnt many fascinating new things, and every presenter did an excellent job.



Route on August 17th, 2025

White Watch, 04:00-08:00
As the wind was not expected to return, we had furled up most of the sails and begun preparations to storm-proof them, as a hurricane is forming along the planned route of Lehmkuhl after St. John's. This took up most of our shift. Afterwards, we had lessons about nutrition transition and Indigenous technology and transport. We learnt about Arnarulunnguaq, an Inuk woman who joined the Fifth Thule Expedition.

A red watch participant giving a speech about her PhD. Photo: Amund Bådsvik

Red Watch, 12:00-16:00
Great day! Sunny and lovely on deck. Louis made a presentation about his studies on the Indigenous people in Canada. Later, we observed northern bottlenose whales, a group of approximately five individuals swimming close to the ship. Time and place of observation: N 52°0240.82, W 050°4121.14, time 14:17 (15:17 UTC).

White Watch, 16:00-20:00
We had good weather up on deck; many decided to take their dinner outside. Lucie played for us audio recordings of pilot whales we had previously observed. The Captain announced that we are a day ahead of schedule and would make landfall in Canada by midday on Tuesday. He taught us the song 'Farewell to Jamaica' by Harry Belafonte. At 19:30, Sara and Ola from the crew held a salsa lesson on deck. There was also a Sámi handicrafts workshop, where we learnt to braid with yarn. Many of us continued this work up on deck, watching the beautiful sunset. People are just now beginning to realise that the journey is coming to an end, a bittersweet realisation coloured by the red brushstrokes of the last light.

From one of the circle conversations on deck. Miyuki Daorana, who is from Kalaallit Nunaat (Greenland), is a student at UiT, and she shares her experiences on the course.
Photo: Karine Nigar Aarskog

"We need both the highways and the paths"

Karine Nigar Aarskog

This news piece was originally published on August 11th, 2025 on uit.no.

In a time when the Arctic faces significant challenges and changes, Indigenous knowledge is becoming increasingly important in educating the leaders of tomorrow.

The student course Arctic Future Pathfinders aboard the *Statsraad Lehmkuhl* employs reflection-based learning methods. Students are encouraged to explore alternative pathways of knowledge and perspectives that can contribute to a more holistic understanding of the world.

Jan-Erik Henriksen, an associate professor in social work at UiT The Arctic University of Norway, who also has a Sámi background, is part of the voyage to introduce students to Indigenous philosophy. This philosophy emphasizes that nature is full of trails—both visible and invisible—and that these trails represent knowledge shaped by generations of humans and animals.

"We challenge students to look beyond the broad 'highways' of established science and explore the less visible trails that Indigenous knowledge offers. It's about equipping students with tools to reflect on why they believe what they believe and to understand that multiple forms of knowledge can coexist," says Henriksen.

"We want to challenge them to think in new ways while also recognizing the importance of the past," he adds.

Jan-Erik Henriksen from one of the lessons.
Photo: Karine Nigar Aarskog

The lessons are held at the same place as the students eat and sleep.
Photo: Karine Nigar Aarskog

The Indigenous Dimension in Focus

The Indigenous dimension is becoming increasingly important in the Arctic, both politically and academically. Through the course, students gain insight into how Indigenous knowledge can contribute to sustainable solutions and new ways of understanding the world. This includes everything from traditional knowledge about nature to philosophical perspectives on the interplay between humans and the environment.

"We see that Indigenous knowledge is often exoticized or marginalized, but we want to show that it has real value and relevance", says Henriksen.

"It's not about replacing established science, but about creating space for both", he adds.

Reflection and Collaboration

The course places great emphasis on reflection and collaboration. Through methods such as circle discussions and reflection exercises, students are encouraged to challenge their own biases and explore new perspectives. This approach differs from traditional lectures and provides a more dynamic learning experience.

"We want to give students the tools to be culturally sensitive and open to different perspectives. It's about understanding that knowledge is not static but evolves through encounters with diverse cultures and experiences," says Henriksen.

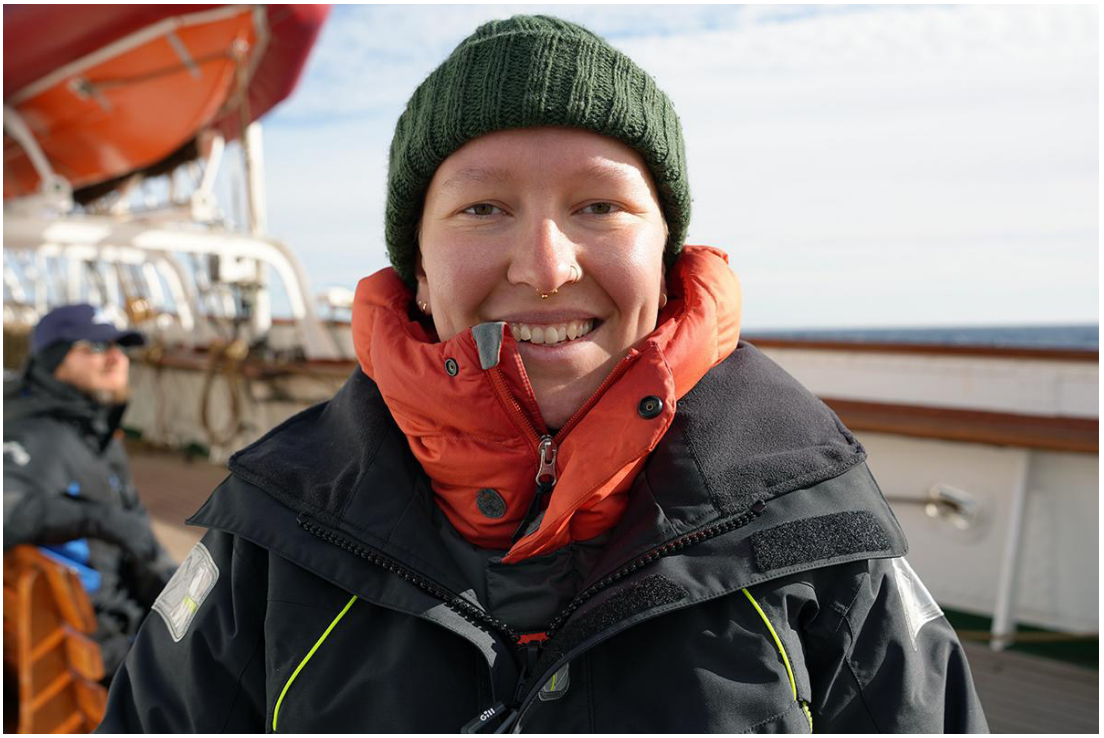
Miyuki Daorana, who is from Kalaallit Nunaat (Greenland) and a student at UiT, is one of them sharing her experiences with the other course participants. She explains how the word 'expedition' could trigger something negative for the local communities in Greenland.

"There has been some terrible things happening connected to earlier expeditions back in the days", says Daorana.

"I'm from Canada, so I only really know about that side of things. The thing I commented on at the end was about terminology and how it's interpreted by different communities. So the word expedition, I didn't know that that was a sensitive word for people in indigenous communities", says Max David Kelly from Memorial University of Newfoundland after one of the lectures.

Norja Walther, who is a master's student at the university of Greenland, really enjoyed the circle conversations.

"So the feeling that I left the session with was a hopeful and calm feeling that we were able to create a space here in which we all come together with our various backgrounds and can openly share what feels like a safe space and that we all come together with the willingness to learn and to listen and to also share our own stories", says Walther.



Norja Walther studies at the university of Greenland in Nuuk. Photo: Karine Nigar Aarskog

Challenges and Opportunities

Although Henriksen has received much positive feedback from students, there are also challenges. Many students from natural sciences have little experience with Indigenous knowledge, and integrating this perspective into an academic context can be difficult. Nevertheless, Henriksen sees the course's structure as an opportunity to plant small seeds of curiosity and understanding.

"It's about building bridges between different forms of knowledge. We believe this is crucial for addressing future challenges in the Arctic and the world at large," says Henriksen, before adding:

"We hope this course can inspire students to think in new ways and bring these perspectives into their future careers. To face the challenges of the future, we need both the highways and the paths."

Max David Kelly is a student at Memorial University of Newfoundland.
Photo: Karine Nigar Aarskog

Alexander Lott from a lecture about the straits, onboard *Statsraad Lehmkuhl*.
Photo: Karine Nigar Aarskog

The Importance of Straits: A Legal, Environmental, and Strategic Perspective

Karine Nigar Aarskog

This news piece was originally published on August 17th, 2025 on uit.no.

The significance of maritime straits is multifaceted, particularly regarding their commercial, environmental, and strategic dimensions.

"Straits are the lifelines of international maritime trade. Over the past two decades, maritime trade has doubled, with much of this cargo passing through straits, the chokepoints of global navigation," Alexander Lott explained. He is a senior researcher at Norwegian Centre for the Law of the Sea (UiT), currently on board the sailing ship *Statsraad Lehmkuhl* to lecture in the course Arctic Future Pathfinders.

The sailing ship was originally supposed to go through the complex system of straits known as the Northwest Passage. Due to dangerous navigation conditions the Canadian authorities denied the ship permission to enter the Northwest Passage. In his session, Lott focused on the legal dimensions of Canada's decision under the international law of the sea.

Lott also explored the complexities of navigation regimes and the broader implications for global trade, security, and marine ecosystems.

The Northwest Passage: A potential route

While straits like the Strait of Dover and the Strait of Malacca are among the busiest in the world, the Northwest Passage remains relatively underutilized, with only about 40 ships that cross the entire passageway annually.

Alexander Lott is a senior researcher at UiT. Photo: Karine Nigar Aarskog

The students have lessons every day, about different topics in the Arctic. Here represented by Bálint Timári (to the left) and Norja Walther. Foto: Karine Nigar Aarskog

"Even the Åland Strait, a minor strait at the entrance to the Gulf of Bothnia in the Baltic Sea, sees more daily traffic than the Northwest Passage does in a year," Lott noted.

However, aside its potential as a shorter trade route, the Northwest Passage holds also a unique strategic value.

"It provides a potential route for naval forces to move between the Atlantic, Arctic, and Pacific Oceans," Lott said.

Navigational Regimes: A Legal Labyrinth

The session delved into the legal intricacies of navigation regimes, which govern the movement of ships and aircraft through straits. These regimes include the right of innocent passage, transit passage, and freedom of navigation and overflight.

"Innocent passage applies within the territorial sea, allowing ships to navigate without prior authorization, provided their passage is not prejudicial to the peace, good order, or security of the coastal state," Lott explained.

"Transit passage, on the other hand, is specific to international straits and guarantees freedom of navigation and overflight."

The Northwest Passage, however, is subject to Canada's assertion that it constitutes "non-international straits," requiring prior authorization for passage.

"This creates a parallel legal regime, with Canada and the United States holding conflicting views on the applicable navigation rights," Lott noted.

"Such disputes have the potential to escalate into diplomatic or even kinetic conflicts, as we've seen in other parts of the world, like the Kerch Strait and the Strait of Hormuz."

Environmental Significance: A Forgotten Perspective

Lott also highlighted the often-overlooked environmental importance of straits.

"Straits are not just vital for human navigation; they are equally crucial for marine species. They serve as natural corridors connecting large marine ecosystems, facilitating the migration of fish, marine mammals, and birds," Lott emphasized.

However, human activities often disrupt these natural pathways.

"Physical barriers like causeways, acoustic pollution from naval operations, and artificial light pollution all impede the movement of marine species," Lott explained. He also pointed to the impact of infrastructure on bird populations.

"Power lines over straits, such as those in

Alexander Lott together with researcher Rebekka Steene at the deck of *Statsraad Lehmkuhl*. Photo: Karine Nigar Aarskog

the Bosporus and the Canso Strait, which is relatively close to our final destination in St. John's, are often invisible to birds, leading to fatal collisions," he said.

A Call for Balance

The workshop concluded with a call for a balanced approach to managing straits.

"Straits are at the intersection of trade, security, and environmental conservation. Understanding their legal regimes is essential for safeguarding navigation rights while protecting the fragile ecosystems they connect," Lott said.

As the Arctic continues to warm and maritime traffic increases, the importance of straits like the Northwest Passage will only grow.

"Whether for trade, security, or environmental reasons, straits are far more than just waterways—they are critical to the future of our interconnected world," Lott concluded.

Hunting and gathering aren't just about food, they're about spending time with family, being in nature, and maintaining cultural traditions Photo: Kedardome / Mostphotos

Indigenous Communities Face Challenges Amid Nutrition Transition

Karine Nigar, Aarskog

This news piece was originally published on August 17th, 2025 on uit.no.

Indigenous communities across the Arctic are grappling with the profound effects of the global nutrition transition, a shift from traditional diets to modern, processed foods.

This transformation, driven by urbanization, globalization, and economic pressures, is not only altering food habits but also threatening cultural traditions, health, and sustainability.

The nutrition transition, as explained by Ingvild Jensen, an Assistant Professor at UiT The Arctic University of Norway, is part of a broader epidemiological shift.

"In the last 30 to 40 years, we've seen a change in the disease panorama. We've moved from infectious diseases to chronic conditions like obesity and diabetes, which are now major global health challenges," Jensen said.

The Loss of Traditional Diets

For Indigenous peoples, the transition has been particularly disruptive. Traditional diets, rich in locally sourced foods like fish, seal, whale, and caribou, are being replaced by store-bought, processed goods. This shift has led to a decline in essential nutrients and an increase in health issues.

"The Indigenous people have survived for thousands of years because they knew what to eat and how to get the vitamins and minerals they needed," Jensen noted.

"But now, traditional foods are being lost, and with them, the knowledge that sustained these communities."

Ingvild Jensen during her lecture about nutrition transition onboard *Statsraad Lehmkuhl.* Photo: Karine Nigar Aarskog

Norja Walther is one of the students attending the course Arctic Future Pathfinders.
Photo: Karine Nigar Aarskog

Norja Walther, a student from Germany, who lives in Nuuk and is studying at Ilisimatusarfik, the University of Greenland, highlighted the role of colonialism in this dietary shift.

"In Greenland, for example, the Danish government promotes milk in schools, even though over half of the Inuit are lactose intolerant. Instead of encouraging traditional sources of calcium, like dried fish, imported goods are prioritized," Walther said.

"This is colonialism changing the diet."

Health Impacts and Cultural Disruption

The introduction of processed foods has led to rising rates of obesity, diabetes, and other chronic illnesses among Indigenous populations. Jensen pointed out that one can be overweight and still malnourished. You might get enough energy, but not the vitamins and minerals your body needs.

Beyond physical health, the nutrition transition is also affecting mental well-being and social cohesion.

"Hunting and gathering aren't just about food—they're about spending time with family, being in nature, and maintaining cultural traditions," Walther explained.

"When those practices are lost, it disrupts social bonds and can lead to mental health problems."

The challenges are compounded by environmental issues. Pollution and climate change are making traditional food sources less reliable.

"Heavy metals in the blubber of marine animals and overfishing by large corporations are reducing the availability

Dried fish can be a good source for Calcium.
Photo: Andreas Altenburger

Soraya Grigoriou Gratton (to the left) holds a master's degree in environmental law and specializes in marine environmental protection and Arctic law at UiT. Photo: Karine Nigar Aarskog

and safety of traditional foods. This forces communities to rely on expensive, low-quality imported goods," said Walther.

Economic and Political Pressures

Economic factors also play a significant role. Rising incomes and urbanization have led to changes in food preferences, while the high cost of importing fresh produce to remote Arctic regions limits access to healthy options.

"In Nuuk fresh vegetables are extremely expensive. In East Greenland, where ships only come half the year, most food is frozen and processed," said Walther.

Jensen emphasized the political dimensions of nutrition.

"Food is deeply tied to politics," she said.

"Governments can influence diets through taxes on unhealthy foods, subsidies for fruits and vegetables, and education programs. But they must also respect Indigenous food sovereignty—allowing communities to decide what they want to eat and how to sustain their traditional food systems."

The Way Forward

"It's not just about food security—it's about food sovereignty," Walther argued.

"We need to make traditional foods safe and accessible, rather than focusing on importing goods like lettuce or pineapples to the Arctic."

Others highlighted the need for better conservation policies.

"Marine protected areas and bans on hunting often ignore the needs of Indigenous communities," Soraya Grigoriou Gratton, a master's student from France studying at UiT, said.

"These decisions are made by centralized governments without consulting the people who live there."

Jensen concluded the session by stressing the importance of preserving traditional knowledge:

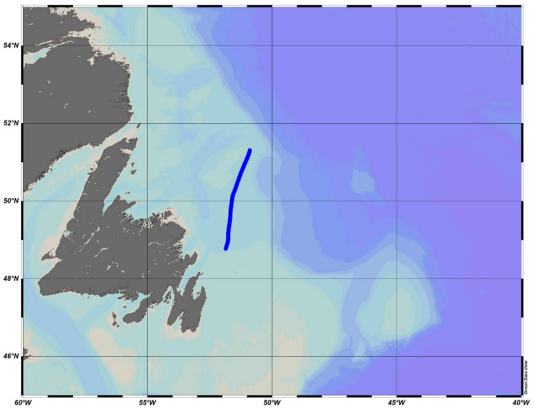
"If we lose the skills of hunting, fishing, and gathering, we lose a vital part of Indigenous culture. It's crucial to teach younger generations how to sustain these practices, even in the face of modern challenges."

Muster on deck during watch shift. Photo: Andreas Altenburger

Almost in St. John's, 18.08.2025

Clara Lery

White Watch, 04.00-08.00
We started the watch by cleaning the white part of the deck, which includes the galley house and the outside banjer entrances. We moved all the benches and used soap, water and brooms to clean throughout the ship. At around 9.00 am, Gael presented his Master's project about permafrost, then we had to set the buoys that are on the side of the ship to prepare for our arrival tomorrow. At 10.00 am, Rosa Maren and Marit gave us the opportunity to learn how to catch reindeer as the Sámi people traditionally do; it was very fun (and hard). We were also able to observe a gannet flying above the ship. Then, at the end of the watch, Miyuki showed us how to sculpt a narwhal horn.



Route on August 18th, 2025

White Watch,16.00-20.00
What a strange feeling knowing this watch is our last one. It is a beautiful afternoon with a blue sky and a lot of sun. This watch has been pretty calm compared to others. We cleaned the white parts of the deck. We enjoyed seeing many, many whales and birds.

Miyuki sculpting (blue watch). Photo: unknown

Head reindeer (blue watch). Photo: unknown

We ate delicious cordon bleu with carrots and potatoes on deck and at the lookout. We had the everyday meeting with Max and then the captain. We will arrive earlier than planned because of the weather. We sang all together. We asked our White Watch officer, if we could see the Nazi sextant and learn how to use it. Many of us tried it; it is hard. We finished our watch by taking the White Watch photograph to remember our team and the good spirit we have. Many of us stayed with the Blue Watch to enjoy the sunset and an apéro!

Blue Watch, 20.00-22.00

Because of the arrival in St. John's, the watches finished at 10.00 pm. First of all, we threw the food waste overboard and cleaned all the bins. We also took a Blue Watch group picture all together to create memories, and the bravest had the opportunity to climb up the rigging for the last time. At the end of the watch, our watch leader offered us a alcohol-free drink together.

Seamus Beairsto from the University of Victoria in Canada provided a saliva sample for the experiment. Photo: Karine Nigar Aarskog

Created a DNA Sample on Deck

Karine Nigar Aarskog

This news piece was originally published on August 14th, 2025 on uit.no.

The students aboard the *Statsraad Lehmkuhl* were shown how easy it is to create a DNA sample.

Senior Engineer Iva Pitelkova demonstrated today how to create a DNA sample aboard the *Statsraad Lehmkuhl*. She gave a brief lecture on the various tools that can be used in molecular biology.

A little seawater, some saliva, and a bit of disinfectant are all it takes to create a DNA sample, as Pitelkova demonstrated to the students on deck. The two students, Emma Gourrion and Seamus Beairsto, spat into their respective test tubes, which were already filled with seawater. Pitelkova then added hand sanitizer containing isopropyl alcohol. After a few minutes, a DNA sample was formed.

Emma Gourrion from Université Paris Cité gives her contribution experiment.
Photo: Karine Nigar Aarskog

Iva Pitelkova adds some sanitizer.
Photo: Karine Nigar Aarskog

Miyuki Daorana has been giving lessons on board *Statsraad Lehmkuhl* on the student course Arctic Future Pathfinders. Photo: Vincent Denarié

Indigenous Knowledge, Strength and Reality

Karine Nigar Aarskog, Miyuki Daorana

This news piece was originally published on August 19th, 2025 on uit.no.

There is a growing global awareness and acknowledgement of the significance of Indigenous Knowledges.

The following text is written by Miyuki Daorana, who is a student at UiT The Arctic University of Norway and an Iniut knowledge holder at Arctic Future Pathfinders.

Holistic knowledge systems actively and ongoingly connects different topics and constructed categories, like "culture", "nature", "social", "language, "economy", and such.

An example from Avanersuaq, Northwest of Kalaallit Nunaat (Greenland), we have one word, "Hila" which means "weather", "climate", "consciousness", and "inner self" all in one word.

This one word from the Inuit language erases the dominant Western separational categorization and encapsulates the connection between "nature", "health", "people", "inner" and "outer".

Stigmatization and Oppression of Indigenous Knowledge

Historically and continuously Indigenous Peoples, their lives and their way of being and knowing has been judged as "backwards", "primitive", "traditional", and "underdeveloped".

The judgements made by settlers and states were based on research and experiments on Indigenous skulls, bodies, and minds.

This degrading view on Indigenous Peoples are embedded in educational institutions, political structures, and social

discourses. Like the use of "developing" and "underdeveloped" countries or territories, used in the United Nations and the European Union, and many universities.

Strength and Significance of Indigenous Knowledges

Thankfully, there is a growing global awareness and acknowledgement of the significance of Indigenous Knowledges. Lots of International Instruments and conferences are seeking and demanding Indigenous ways to solve the Climate Crisis and capitalist issues.

Indeed, many realize that Indigenous knowledge systems are not backwards. On the lesson I held on board, as an Inuk knowledge holder, I gave an example of the complex technology, skills, and knowledge that Inughuit has.

From Indigenous engineering, to navigating endless types of ice, weather and seas, I gave a specific example from Arnarulunnguaq´s reconciliated story.

Arnarulunnguaq was an untold yet a key part of the fifth expedition with Knud Rasmussen. She had extraordinary skills and knowledges, like carrying fire with her, fire secured in fish skin, a scientific and spiritual skill that many Inughuit and Inuit tragically have lost due to colonialism and degradation.

The students were challenged to reflect on how the Arctic could possibly look like in 2050.
Photo: Karine Nigar Aarskog

What Will the Arctic Look Like in 2050?

Karine Nigar Aarskog

This news piece was originally published on August 18th, 2025 on uit.no.

What are the future challenges in the Arctic, and what can we do to find solutions? The students aboard the *Statsraad Lehmkuhl* were tasked with creating future scenarios and exploring how we can address them.

Climate change. Pollution. Less ice. Exploitation of natural resources. Lack of understanding. Indifference. There was no shortage of potential challenges when the students in the Arctic Future Pathfinders course tried to envision what the Arctic might look like in 2050. But how do we address these challenges? And who needs to come together to find solutions?

Several students aboard the *Statsraad Lehmkuhl* emphasized that research must be conducted in consultation with the local population of the area in question. The same applies to decisions being made. One example is the Northwest Passage, where students suggested that regulations could be implemented to allow only non-polluting vessels to navigate through.

"Since the Northwest Passage could become an important trade route, such regulations could be used to pressure states to work harder to prevent pollution," says Bálint Timári, a student at UiT.

The Importance of Communication

The workshop was an essential part of the course Arctic Future Pathfinders, where the point is to work holisticly with different topics connected to the Arctic. The course is coordinated by Melania Borit and Timo Szczepanska, both from the research group CRAFT at UiT.

Mathieu Roy during the workshop. Photo: Karine Nigar Aarskog

During the two-hour workshop, the students addressed topics such as climate, polar bears, melting ice, and governance. For polar bears, they hope for a commitment to protect the species so that populations can be maintained and Indigenous peoples can continue traditional hunting practices.

"Additionally, research findings must be communicated back to the local communities," says Mathieu Roy, a master's student in biology at Université Laval in Canada.

Another point raised was the importance of adhering to the so-called "fair" and "care" principles in all research, ensuring a balance between economic and environmental considerations.

We need several disciplines

Susanna Nemeth Winther, a master's student at UiT, found the future-focused workshop to be a valuable exercise.

"It's an exciting way to think, where we have to try to imagine the future from multiple perspectives. We need to involve different disciplines to find solutions and envision which stakeholders should be involved, instead of just doing things the way we've always done them," says Winther.

PhD candidate Aliette Chenal from Université de Toulouse shared that she is not used to thinking so abstractly.

"It's difficult to imagine what the Arctic will be like in 2050. But it's helpful to talk to people who study fields different from mine and, in that way, understand other aspects," says Chenal.

"We need to believe in something"

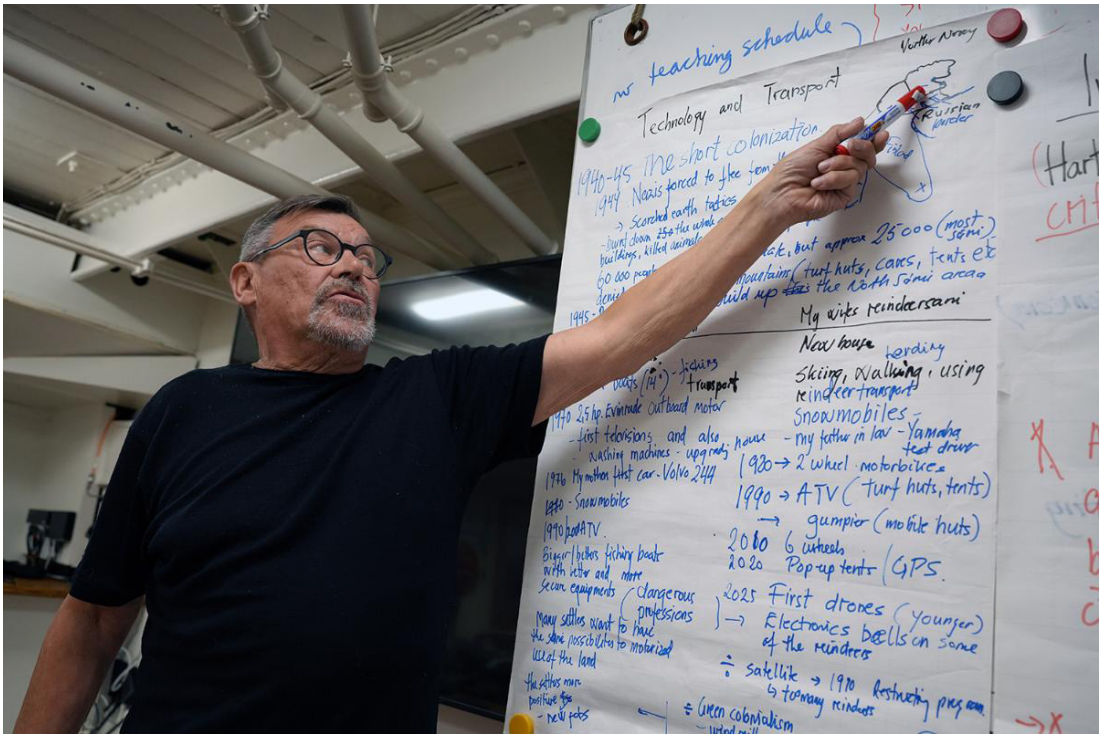
Lisell Øyjordet, a master's student at UiT, believes it's important to set goals for where we want to go.

"That way, we have a clearer path forward instead of wandering blindly. This

Lisell Øyjordet (left) and Susanna Nemeth Winther. Photo: Karine Nigar Aarskog

allows us to act in time. We need to think interdisciplinarily and bring people together across fields," says Øyjordet.

Winther agrees:
"Yes, we have to believe that we can make a difference. Otherwise, it will be bleak."



Jan-Erik Henriksen is a professor at UiT in Alta. Photo: Karine Nigar Aarskog

Facing Rapid Changes in Technology and Transportation

Karine Nigar Aarskog

This news piece was originally published on August 19th, 2025 on uit.no.

Indigenous communities across the Arctic and northern Norway are experiencing profound transformations in technology and transportation, reshaping their Indigenous ways of life.

For the Sami people of northern Norway, the post-World War II era marked the beginning of significant technological change.

"In the 1950s, we started to rebuild the North Sami region after the devastation of the war," said Jan-Erik Henriksen, professor at UiT The Arctic University of Norway.

"We went from living in turf huts to building houses, but many didn't know how to live in modern homes. Some of these houses were destroyed because people weren't taught how to maintain them."

From Rowboats to Snowmobiles: A Technological Evolution

Transportation technology also evolved rapidly. From the introduction of snowmobiles to the use of drones for reindeer herding, these advancements bring both opportunities and challenges, as they intersect with cultural preservation, environmental concerns, and economic pressures.

"Until the 1960s, my family used rowboats for fishing in the Varangerfjord. When my grandfather bought a 2.5-horsepower outboard motor, it was like heaven. Before that, rowing against the eastern wind could take three hours just to check the nets," Henriksen recalled.

Miyuki Daorana (right) together with two lecturers from UiT; Ingvild Jensen and Jan-Erik Henriksen. The book Daorana is holding is about Arnarulunnguaq, who participated in one of the expeditions of the Danish adventurer Knud Rasmussen. Among other things, she mastered the art of carrying fire, protected by fish skin. Photo: Karine Nigar Aarskog

In reindeer herding, the shift was equally dramatic.

"My wife's father used to ski to the mountains to tend to the reindeer, sometimes staying away for months," Henriksen explained.

"The first snowmobiles arrived in the 1960s, and by the 1980s, herders started using ATVs. Today, many use six-wheel ATVs and even drones to monitor their herds."

The Inuit Perspective: Adapting to a Changing Arctic

For the Inuit of Greenland and Canada, transportation has always been deeply tied to educational, economic, and cultural exchange across Inuit Nunaat (Greenland, Canada, Alaska, Russia), and ontological identity.

"The sea and the ice are our lifeline and our teachers," shared Miyuki Daorana, a master's student at UiT and an indigenous knowledge holder from Kalaallit Nunaat (Greenland) at the student course Arctic Future Pathfinders.

"We used to travel through infrastructures of various seas and ice with dog sleds and kayaks, but the nationalist borders and the Anthropocene directly affects our lives, generational learning and sustainability," said Daorana.

The melting sea ice, a result of man-made climate crisis, has disrupted traditional transportation routes and hunting practices. "The ice used to freeze thick enough for trucks to drive on it, but now, when it should be solid, the ocean is shown. This affects not just transportation but also food security, health, education and the passing down of knowledge," Daorana explained.

Modernization and Cultural Tensions

Miyuki Daorana had lessons also on deck.
Photo: Karine Nigar Aarskog

While technological advancements have made life easier in many ways, they have also introduced new challenges.

"Modernization is a kind of colonization," Henriksen noted, referencing the work of German sociologist Hartmut Rosa.

In Greenland, The Danish had a modernization process on Inuit in 1950s-1960s. Daorana asks: "Is it modernization to forcefully put IUDs in 12-year-old girls?"

"The world is accelerating, and this process alienates us from ourselves, from others, and from nature," Henriksen said.

It can also be understood as "developmental aggression" that categorizes people in "developing countries" and "underdeveloped countries".

The Sami and Inuit have expressed concerns about the environmental and cultural impacts of modernization.

"Why do windmills and hydroelectric power lines always have to be built on herding land? Couldn't they be built in Oslo or somewhere else? This is what we call green colonialism," Henriksen said.

A Path Forward

Despite these challenges, Indigenous communities are also finding ways to integrate modern technology with traditional practices.

"Some young reindeer herders are using drones to monitor their herds. It's sustainable because you don't need to use an ATV as often. Others are using GPS collars on reindeer to track their movements," said Henriksen.

As Indigenous communities navigate these changes, they are calling for upholding existing human and Indigenous rights.

"It's not just about adopting new technologies—it's about ensuring they align with our values and ways of life. We need to teach younger generations not just how to use Western tools but also how to sustain our Indigenous practices," Henriksen said.

The view on the narrows from the harbour on the Labrador Sea, that we just crossed. Photo: unknown

19.08.2025 arrival in St. John's

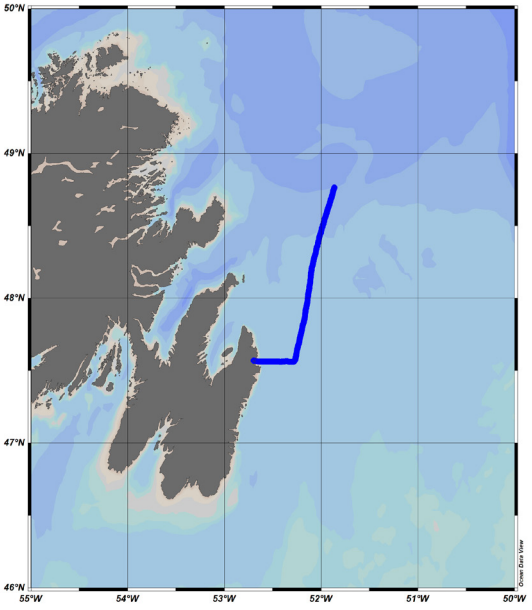
Delphine Gilliard, Loan Renaud, Bastien Ruols

Back to land

Today is the final day of our voyage, and we prepared the boat to return to land. After waking up, the day began with a deep cleaning of the entire ship. Anna, our mum and dad on board, provided each of us with tasks to ensure everything was cleaned and ready for arrival. In the meantime, physical watches were still needed, and we had to volunteer for them.

Delphine did the lookout at 08:00, Loan did the lookout at 12:00, Bastien did the buoy at 15:00.

The crew took care of preparing the deck while we were watching the shore getting closer, and some of us even saw puffins flying, and new birds as well. A harbour pilot came on board and, as we got closer, some of us had to volunteer to help with the docking. Special mention for Vincent and Enzo, who



Route on August 19th, 2025

Little houses on the granite cliffs in St. John's. Photo: unknown

played a pivotal role managing the largest fender, ensuring everything went smoothly.

After docking, we received the news that we were not yet allowed to disembark. Customs officials boarded the ship, and we participated in a formal ceremony with the captain, during which we were presented with our diplomas.

Personal reflections: some of us are happy to finally end this journey , but the majority of us are already nostalgic.

Sunrise on Quidi Vidi Lake. Commonly pronounced 'kiddy viddy', the lake is known for its popular hiking and walking trails, along with its long history of hosting sporting events.
Photo: Alexandre Delangle

20.08.2025 in St. John's

Alexandre Delangle

After fifteen days of sailing on the open sea of the North Atlantic, our party set foot in the city of St. John's, Newfoundland, after involuntarily retracing the path of the Norse sailors of the 11th century and the immigrants of later centuries who had drifted across the ocean. On the previous night, a majority of the participants had gathered to celebrate our arrival in town – along with a substantial part of the crew. For the first time in fifteen days, we were able to wake up at 8.00 am (later than our usual gathering time in the fore banjer) and share a common breakfast that brought together the three watches. Work awaited us that day, and our final preparations before leaving the ship had to be completed by 1.00 pm at the latest. After packing our last belongings and effects, and taking our backpacks out on deck, we checked that our lockers were duly emptied under our quartermaster's watchful eye. For those who recovered from the festivities of the previous night, a whole morning of free exploration was offered.

As one of the earliest European settlements in North America, said to have been founded on the feast day of Saint John the Baptist, 24 June 1497, under the patronage of the navigator John Cabot (Giovanni Caboto, c.1490–c.1499), the hilly city of St. John's is keen to remind its visitors of its past as a fishing village with its historical panels. A gathering point for Portuguese fishing fleets in the 16th century, where they left a tradition of governance by "Fishing Admirals" in the harbour, many Europeans immigrated to this tip of Newfoundland from the 17th to the 19th

century. With a substantial part of passengers coming from Ireland, the town's architecture still testifies to the historical competition among the Catholic, Anglican, Presbyterian and Methodist communities that populated and built it. Among its multiple religious landmarks, the Romanesque Basilica-Cathedral of St John the Baptist, completed in 1855 and then the largest church in North America, remains the town's most imposing monument. Yet these historical reminders tend to overlook that the arrival of European settlers also brought them into contact with the Béothuk, Newfoundland's Indigenous inhabitants, whose displacement, decimation and eventual extinction in 1829 stand among the earliest examples of colonial disruption in the North Atlantic.

Today, few fishing vessels can be sighted in the harbour as St. John's welcomes numerous tourists with its souvenir shops, thrift stores, colourful sweet shops, Irish pubs, international restaurants and even superstores. To the non-Canadian members of our group, the city appeared as a gateway to an unknown continent, symbolised by the first milestone of the Trans-Canada Highway – built between 1949 and 1970 – which links the provinces from St. John's in Newfoundland to Victoria in British Columbia, uniting the country's East and West Coasts. Even though St. John's marked the end of our journey, the beginning of this 7,821-kilometre ribbon of asphalt also evoked the promise of another voyage.

By 2.00 pm, two shiny yellow school buses took us from the *Statsraad Lehmkuhl* to our new facility, where we would spend the night before our flight to Montréal. Belonging to the Royal Canadian Legion, the building welcomed us with military exhibits and memorials of past conflicts, particularly the First World War and its heavy toll on the "Johnnies" who were sent as far as the Gallipoli Peninsula. Finding ourselves once again on solid ground and

Roman Catholic Basilica of St John the Baptist. Built between 1841 and 1855, the monument remains one of the finest examples of Romanesque architecture on the North American continent. Photo: Alexandre Delangle

within motionless interiors was no small change for those who had grown accustomed to waves and constant movement, to the point of feeling a strange dizziness while walking indoors. Spacious and well-situated, the veterans' community centre stood next to the bucolic village of Quidi Vidi, where we spent the remainder of the afternoon and shared a common meal by the lake. Despite our collective exhaustion after a long day of urban exploration, we gathered one last time that evening to attend the screening of Sumé – The Sound of a Revolution (Sumé – Mumisitsinerup Nipaa, 2014), a movie made by Inuk Silis Høegh and dedicated to the connection between the Greenlandic band Sumé and the political upheaval of Greenlandic society in the 1970s. As the first band from Kalaallit Nunaat to sing in Kalaallisut, Sumé embodied both the voice of a people historically marginalised for using their ancestral language and the aspirations of a generation seeking to overcome the island's colonial legacy after two centuries of Danish rule. Their three albums, released before 1979, are now remembered as the soundtrack to the pro-autonomy movement that challenged Denmark's administration and restored pride among Greenlanders

Freak Lunchbox's front window. A sweet shop on Water Street where non-American eyes can gaze upon (very) high-sugar treats unavailable in Europe. Photo: Alexandre Delangle

asserting their Inuit identity. Yet, as the film suggests, the message that once mobilised Greenlandic society several decades ago continues to resonate today. Despite the modern glass buildings and airports we witnessed at the beginning of our journey – and the formidable promises of mineral wealth from minerals prospected by foreign companies – the after-effects of colonisation continue to frame Greenlanders' daily life, both economically and culturally. This screening, one of our final opportunities to reflect on Arctic societies, greatly enriched our understanding of Greenland's history and of how an anti-colonial movement can take many forms. Ultimately, it served as a final reminder that the Arctic is not only a region of great scientific importance but also a living network of societies determined to shape their own future.

Statsraad Lehmkuhl on its way out of the harbour, after students and educators disembarking in St. John's. Photo: Karine Nigar Aarskog

St. John's: A Historic Gateway

Karine Nigar Aarskog

This news piece was originally published on August 24th, 2025 on uit.no.

The students aboard the *Statsraad Lehmkuhl* had the opportunity to sail through "The Narrows" in St. John's. This narrow strait leads sailors into a highly sheltered harbor—and to the heart of the city.

"Passing through this strait in St. John's is iconic. For centuries, people have sailed through here when arriving in Newfoundland, through our front door. Not many get to experience entering the city from this side," says Kim Crosbie, interim Director at the Leslie Harris Centre at Memorial University of Newfoundland.

Memorial has been an important partner for UiT The Arctic University of Norway in planning the student course Arctic Future Pathfinders. UiT chartered the sailing ship *Statsraad Lehmkuhl* in August and September this year to host the course onboard, involving nearly 60 students and 20 instructors.

Originally, the ship was supposed to sail through the Northwest Passage, but on August 9th, it became clear that it had to turn back due to ice conditions. The alternative was to conclude the first part of the student course in St. John's, the capital and largest city in the province of Newfoundland and Labrador, located in eastern Canada.

Fishing was long the main industry here, but now oil and gas have taken over, along with trade and tourism.

Discovering "Vinland"

The first humans arrived in North America from Siberia across the Bering Strait about 14,000 years ago, and Newfoundland has been inhabited for a very long time. The

Kevin McAleese is a curator at the museum The Rooms, located in St. John's.
Photo: Karine Nigar Aarskog

Kim Crosbie is the interim Director of Leslie Harris Centre at Memorial University.
Photo: Karine Nigar Aarskog

St. John's is known for its many colourful houses.
Photo: Karine Nigar Aarskog

oldest traces of the Inuit, who hunted and fished on the ice and along these coasts, are 9,000 years old.

About 1,000 years ago, the first Vikings arrived on the northern side of Newfoundland. The Vikings sailed via the British Isles and Iceland, then to Greenland, where the Norse explorer Leif Erikson grew up. According to the Saga of Erik the Red, Leif Erikson travelled to Norway in 999, and on his return journey to Greenland, he went off course and discovered "Vinland," which today is believed to be Newfoundland.

"In the 1960s, Anne Stine and Helge Ingstad conducted excavations on the northern side of the island. The findings show remains of Norse settlements and strengthen the theory that this was what Leif Erikson called Vinland," says Kevin McAleese, curator at The Rooms museum in St. John's, where the students were given a tour during their visit.

The students visited The Rooms when visiting St. Johns. Photo: Karine Nigar Aarskog

Memorial University of Newfoundland has campuses several places, with the main campus located in St. John's. Photo: Karine Nigar Aarskog

The excavation site—L'Anse aux Meadows—is now a UNESCO World Heritage Site. The Rooms houses an exhibition with artifacts from the excavations, and McAleese has spent much of his career exploring this history. He explains that the Vikings did not stay in L'Anse aux Meadows for more than a couple of decades.

"It turned out that transatlantic trade was not profitable enough to stay, and they also did not get along well with the Indigenous peoples in the area. These were likely reasons why they returned to Greenland," says McAleese.

In the 15th and 16th centuries, ships from other European countries also landed along the coast of Newfoundland.

"The British, French, and Spanish landed in several places along the coast here. When I learned that the students from the course were coming to St. John's, I was glad they had the opportunity to visit us and see this important historical site," says Kim Crosbie.

Collaboration Between Memorial and UiT

Memorial and UiT signed a collaboration agreement in 2014 and have maintained a close partnership since. Among other initiatives, Arctic forums have been organized every other year, alternating between Norway and Canada, bringing together decision-makers and leaders from business and academia to discuss Arctic issues. When the COVID-19 pandemic made it difficult to plan a new forum, the idea arose to participate in the One Ocean Expedition and organize a course aboard the *Statsraad Lehmkuhl*.

"We saw this as a fantastic opportunity for our students, and we also opened it up to students from across Canada, which was made possible because the Canadian Department of Foreign Affairs provided funding," says Crosbie.

Canada has a coastline of 240,000 kilometers and borders three oceans: the Pacific, Atlantic, and Arctic. Crosbie explains that it is therefore natural for them to contribute to a student course about the Arctic, in the Arctic, where the ocean plays a crucial role. The course has brought together students from 15 different countries and 22 universities, addressing topics such as climate change, ocean management, and Indigenous perspectives.

"Climate change and how we manage the oceans are very important to us. Bringing together young students from around the world to learn about both science and societal issues provides a unique opportunity. We hope these students will become our future leaders in the Arctic," says Crosbie.

"The students have the chance to learn in an international environment and build networks that can last a lifetime," she adds.

The centre of St. John's is full of colorful houses. Photo: Karine Nigar Aarskog

Sharing an holistic approach

Both Memorial and UiT take a holistic approach to the Arctic, which is not just about scientific data but also about how climate change affects societies, Indigenous peoples, and governance structures. This has been reflected in the course, which combines scientific and societal issues. The goal is for students to gain a deeper understanding of how the Arctic influences and is influenced by global processes.

"When we talk about the Arctic at our university, we do so with a broad perspective. We include not only natural sciences but also humanities, social sciences, engineering, arts, and an Indigenous perspective. It is important to understand how everything is interconnected," says Crosbie.

As for UiT, the Indigenous perspective is central for Memorial, especially considering Canada's work on truth and reconciliation. The university has, among other initiatives, established a Vice-President for Indigenous Affairs and developed a strategy for Indigenous research.

"We don't just want to protect Indigenous cultures but embrace and recognize the value they bring. This is embedded in everything we do," Crosbie emphasizes.

Local Impacts of Climate Change

Local communities in Newfoundland and Labrador are also feeling the effects of climate change. Joel Finnis, head of the Department of Geography at Memorial, explains that there is less sea ice, which has consequences for Inuit communities in Labrador that rely on stable sea ice for hunting and transportation. Less sea ice also leads to higher winter temperatures both in the Arctic and further south.

"We have an increased risk of wildfires in our area due to higher temperatures and less precipitation," says Finnis.

When the students arrived in St. John's, there was a wildfire just a few miles from the city, forcing several local communities to evacuate.

"We are also experiencing stronger storms as a result of climate change. For example, Hurricane Fiona in 2022 was the strongest storm ever recorded in Canada," Finnis explains.

The Need for International Collaboration

Crosbie believes that the collaboration between Memorial and UiT is an example of how international partnerships can help address global challenges.

"We share the ocean, and we must think globally. The relationships being built are crucial, not just for the Arctic but for the entire world," she says, adding:

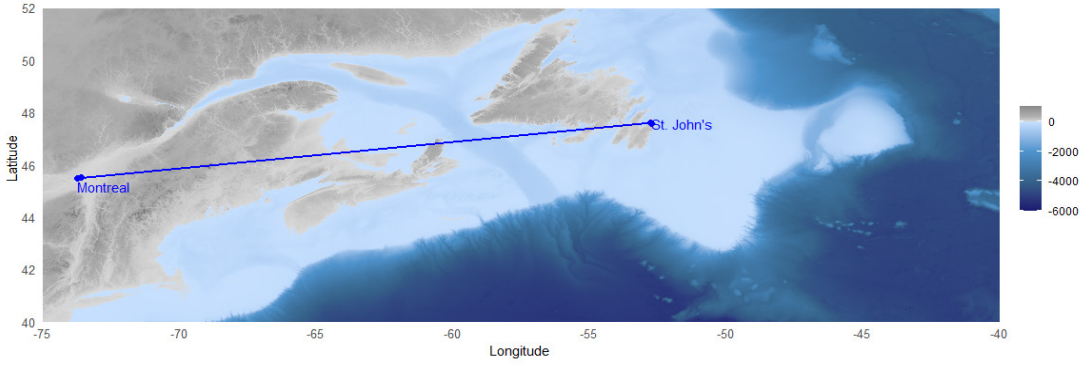
"This is not just a course; it's an experience that shapes the leaders of tomorrow. And that's exactly what we need to tackle the challenges in the Arctic and the world."

The Earth, Our Mother is a sculpture by Inuk artist Billy Gauthier on display at The Rooms in St. John's, Newfoundland. Carved from a fin whale skull. Photo: Andreas Altenburger.

Flight to Montreal, 21.08.2025

Andreas Altenburger

We spent the morning at the Pleasantville Legion Branch 56 in St. John's, holding a feedback round and course reflections before packing. We then took a bus to The Rooms, visited the exhibitions and had a guided tour on Norse history in St. John's.
Back at the Pleasantville Legion Branch 56 we finished packing, and some took time for a walk. In the afternoon, we transferred by bus to the airport for a charter flight to Montreal, with a landing en route to refuel. On arrival in Montreal, we waited for taxis; the students went to a hostel, while the teachers headed to different hotels.



Route from St. John's to Montreal on August 21st. Map: R

Montreal cityscape. Photo: Andreas Altenburger

In Montréal, St. John's, or Edmonton, 22.08.-28.08.2025

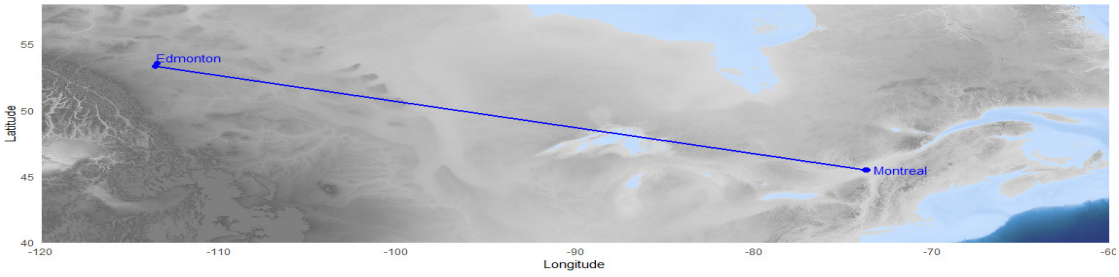
Saga Svavarsdottir – St. John's

After seeing the group off safely at the airport in St. John's, the organising team, consisting of Yasemin, Kunuk and myself, stayed behind in St. John's for three (hectic) days. After finally completing the customs process, we took care of the equipment left behind. Part of the equipment was left on board. Three pallets were prepared for shipping home to Norway, while clothing for leg 2 participants and teaching materials were packed to be brought with us on leg 2 of our journey. We had invaluable help from Maxime (cruise leader) and Frédéric (educator on leg 2), who live in St. John's.

Simultaneously, we continued our meetings with our knowledge holders from Nunavut/Canada, Sammy, Navalik and community liaison Adrian, to plan the next part of leg 2 in Edmonton and Iqaluktuuttiaq/Cambridge Bay.

Saga Svavarsdottir – Edmonton

Yasemin, Kunuk and I travelled (with the equipment) from St. John's to Edmonton. We were picked up by our Indigenous partners Sammy and Navalik, together with our community liaison Adrian. This was the first time we met them in person. We continued with long days of planning for our coming stay in Iqaluktuuttiaq/Cambridge Bay. It needs to be said that this would never have been possible without them.



Route from Montéal to Edmonton by plane on August 26th. Map: R

Leg 1 Cruise Leader's Reflection

Maxime Geoffroy

This leg of the One Ocean cruise was originally envisaged as both a teaching and scientific expedition through the Northwest Passage, sailing from Nuuk to Iqaluktuuttiaq/Cambridge Bay during Leg 1, while conducting sampling activities along the way. Like many expeditions in the Arctic, however, the voyage did not unfold as planned. After one week at sea, circumstances required a significant re-routing, and the remainder of the cruise was conducted in Baffin Bay and the Labrador Sea, with disembarkation in St John's, Newfoundland - my home port.

It would be easy to frame this cruise through the lens of what did not happen. There was understandable disappointment among all participants, because we had all hoped to transit the Northwest Passage. Difficult decisions had to be made, and opinions diverged. Some advocated continuing via the Panama Canal, while others preferred to end the voyage in St John's. At the same time, meaningful but sometimes challenging conversations emerged around the integration of Indigenous knowledge and Western scientific approaches. These moments reflected broader tensions that exist well beyond this single voyage.

Instead, I choose to focus on what this cruise did achieve. Faced with an unexpected change of plan, the entire ship's community was required to adapt quickly. Developing a new itinerary, redefining priorities and maintaining momentum demanded collaboration, flexibility and mutual respect. Crew, instructors and students, many of whom had only recently met, came together to make the most of the conditions we were given. In doing so, participants forged new professional relationships across disciplines, cultures and nationalities, enriching the experience in ways that the original plan could not have predicted.

Despite the re-routing, learning remained at the heart of the voyage. The Arctic Future Pathfinder course was successfully completed, which was our primary educational objective. Participants gained exposure to a wide range of Arctic topics, from oceanography to marine ecosystems, while also learning about navigation, seamanship and life aboard a tall ship. The voyage was also punctuated by moments of quiet beauty, such as long, sunlit days, calm seas (or not), and encounters with whales. These reminded us why Arctic fieldwork continues to inspire curiosity and commitment. Ending the cruise in St. John's allowed us to share a place deeply connected to North Atlantic and Arctic exploration. For me personally, welcoming the group to my home port added a meaningful end to an otherwise uncertain journey. Ultimately, this cruise reinforced an essential lesson: the Canadian Arctic and the Northwest Passage remain difficult to access, even in the modern era. Uncertainty, constraint and adaptation are not failures of Arctic work; they are fundamental components of it. Learning to navigate these realities was part of the Arctic Future Pathfinder course.

In the end, I believe we made the most of a challenging situation. We adjusted, we learned and we worked together to meet our core objectives. That, in itself, is a successful Arctic expedition.

Cityscape of Edmonton. Photo: Andreas Altenburger

In Edmonton, 28.08.2025

Lena Leimgruber Haraldsson

I arrived in Edmonton last night, or technically today, as my flight was delayed and arrived a little after midnight. My trip was 26 hours in total, but that has mostly to do with the long stopover in Stockholm after my flight from Umeå. This is quite normal for Umeå. Flying via and over Iceland, I was excited to see some Arctic tundra, but there was no ice at the moment. Still, it made me feel excited about our trip to the Canadian Arctic soon.

The last time I was in Canada was nine years ago, and while it has changed a lot, I am sure, it has changed a lot for me. Now, when I think of Canada, I think of the High North and the places I read about in the literary fiction that I analyse in my PhD project. Cold, dark, remote, lonely, icy - only a few of the adjectives that seem to dominate fiction about the Far North. Obviously, these things are true, but there is more to the North than these freezing associations. I look forward to learning more about them.

Right now, we are waiting for more students to arrive. The weather is great (30 degrees, not what most people would associate with Canada); after talking to some local people, the winters here seem pretty harsh. Minus 40 is not the exception but rather the rule. It reminds me of Umeå. I spent the day walking around a little and visiting a couple of local bookshops. I had some great conversations with the owners about literature of and about the North, and the fact that most Canadians have never been above the Arctic Circle. It seems like most people do not actually know a lot about the North and have never really been in touch with its people either. I am happy that we get to experience that and cannot wait.

Students walk toward the entrance of the TELUS World of Science in Edmonton.
Photo: Karine Nigar Aarskog

In Edmonton, 29.08.2025

Viljo Vuorimäki, Heikki Tiilikka

First day of the land-based Arctic Pathfinders course in Canada

We sat down for breakfast at 7:00 am and met up with our new crew for the first time since arriving in Edmonton. Overall, conversations with new acquaintances went well, and some had clearly already formed bonds. Dissatisfied with the quality of the coffee, we decided to do as the Canadians do and get our coffee from Tim Hortons. After a short break, we headed out to the Hotel Varscona meeting room, which was located five minutes away from the HI Hostel.

Starting around 10:00 am, Melania Borit introduced the Arctic Future Pathfinders course and the current schedule. Melania emphasised the possible changes to the schedule due to its flexibility and uncertainty. Some more details were shared regarding the charter flight arrangements to Iqaluktuuttiaq/Cambridge Bay. We will be leaving the hostel early in the morning to catch our transport up north.

Our accommodation will be in the CHARS housing facilities (Canadian High Arctic Research Station) and outside in a camping area. Even though we're neither weak nor afraid for our safety, the organising team took extra precautions and hired an armed professional to safeguard us from possible bear intrusions. Other discussion points were related to the lack of running water and limited food. After a shortened lunch break due to our busy scheduling, we arranged the chairs into a circle to make our next activity easier. Sara went through the Code of Conduct, which we had already signed many months ago, to make sure we were aware of the working environment to be encouraged throughout the next two weeks. With the Code of Conduct reintroduced, each participant was tasked with networking with the person next to them, after which we

Grocery shopping in Edmonton. Photo: Andreas Altenburger

presented ourselves (name, role, pronouns and what we identify as).

The two knowledge holders, Miyuki and Beate, gave us a presentation on ethical Indigenous research, most notably bringing up Two-Eyed Seeing and the contrast between 'Native' and 'Indigenous'. Notably, their presentations were only the beginning of their participation in Leg 2 of the course, emphasising their openness to answering any questions course participants might have.

At 16:30 we took a bus ride to Telus World of Science Edmonton, where Kimberly gave us a tour of the Arctic Journey exhibition. Twenty-five minutes before our return, we had the opportunity to visit the other exhibitions; this wasn't nearly enough time to fully experience the entirety of the science centre.

Having returned from our visit, some headed to the grocery store to pick up food for our trip to Iqaluktuuttiaq/Cambridge Bay and ingredients for breakfast, including gluten-free bread, while others waited for pizzas back at the hostel.

After our day ended, most of us became even hungrier for knowledge and looked forward to the rest of the course's surprises and experiences.

Kimberly Tologanak is the Arctic Leader Presenter at the Arctic Journey Gallery in Edmonton, Canada. The students visited the gallery Friday evening. Photo: Karine Nigar Aarskog

Arctic Future Pathfinders Continues in the Arctic

Karine Nigar Aarskog

This news piece was originally published on August 29th, 2025 on uit.no.

The second part of the student course Arctic Future Pathfinders is being held in Iqaluktuuttiaq/Cambridge Bay and Anchorage. "We want to teach a course about the Arctic in the Arctic, together with the local community," says UiT Pro-Rector Jørgen Berge.

Arctic Future Pathfinders is an interdisciplinary student course at UiT, developed as part of the One Ocean Expedition, a year-long circumnavigation. The course takes a holistic approach to the Arctic, combining traditional university lectures with teachings from knowledge bearers among Indigenous peoples from Sápmi, Kalaallit Nunaat (Greenland), and Nunavut, Canada.

Originally, the course was to be held aboard the sailing ship *Statsraad Lehmkuhl*, with a planned route through the Northwest Passage. However, on August 9th, it became clear that the ship could not sail through the passage and would instead take a southern route to reach the west coast of North America to continue its circumnavigation.

A Course About and in the Arctic

This change led UiT to disembark the ship in St. John's, Newfoundland, Canada, where fieldwork for the first group of students was completed, and the students returned home. Now, 30 new students will join a land-based course in Iqaluktuuttiaq/Cambridge Bay in Nunavut and Anchorage in Alaska.

Jørgen Berge is Pro-Rector at UiT and responsible for the course. Photo: Karine Nigar Aarskog

Kimberly Tologanak is proud of her culture and wants to share it with others.
Photo: Karine Nigar Aarskog

UiT Pro-Rector for Research and Development, Jørgen Berge, explains the decision as follows:

"Arctic Future Pathfinders is a course about the Arctic, where the original goal was to sail through the Northwest Passage and learn about the Arctic from a local and international perspective, and experience the effects of climate change firsthand. The Indigenous perspective and engagement with local communities are central to the course. Therefore, we chose to conduct the fieldwork for the second part of the course in the Arctic, in close collaboration with the local community in Iqaluktuuttiaq/Cambridge Bay and Anchorage, rather than accompanying *Statsraad Lehmkuhl* southward," says Berge.

The course is supported and conducted in close collaboration with the Canadian High Arctic Research Station (CHARS), Arctic College, Annaana's Camp, the Kitikmeot Heritage Society, and representatives and knowledge-holders from the local community.

A Personal Fight for Preservation

The first stop for the new group of students was the city of Edmonton in Canada, where they toured the Arctic Journey Gallery, part of the TELUS World of Science. The gallery is an example of how Inuit culture is being brought to life further south in Canada. Loss of language, traditions, and cultural identity has been a reality for many Inuit, especially due to colonization and historical traumas such as residential schools. This has resulted in a generation largely disconnected from their roots.

At the gallery, created in collaboration with Inuit elders from various parts of the Arctic, visitors can learn about traditional Inuit tools, such as stone lamps and ulus, a traditional knife used by Indigenous women in the Arctic. Workshops are also held to teach skills like sewing parkas and creating beadwork art.

Kimberly Tologanak, Arctic Leader Presenter at the Arctic Journey Gallery, shares her desire to educate others about their heritage and ancestors. It is especially important to her that her daughter knows her origins.

"I want her to know who she is, where she comes from, and how our ancestors survived in the Arctic," says Tologanak.

Food as Cultural Heritage

Tologanak also teaches about Inuit culture in local schools to provide both Inuit and non-Inuit with a deeper understanding of her culture.

Food plays a significant role, and for many Inuit in urban areas, accessing traditional

30 students ready for the fieldwork of the second part of Arctic Future Pathfinders. Photo: Karine Nigar Aarskog

These dolls show some of the parkas that Inuit use. Photo: Karine Nigar Aarskog

The students Mathis Jacob Schulz, Sara Cordesco and Judith Andrea Susanne Seiler outside of TELUS. Photo: Karine Nigar Aarskog

foods like Arctic char is a challenge. The Arctic Journey Gallery has allocated funds to import such food from the Arctic.

"The food is part of who we are. It's not just nourishment; it's healing and identity. We want to show that our culture is alive and relevant," says Tologanak.

Connecting with Local Communities

The group of 30 students, along with 23 instructors and other staff from UiT, departs Edmonton for Iqaluktuuttiaq on Saturday. There, they will stay for a week, sleeping in tents at Anaana's Camp and at the Canadian High Arctic Research Station (CHARS), before continuing to Anchorage. The course includes a combination of formal and informal teaching and learning activities, as well as collaboration with and lectures from local community members.

"The students get a unique opportunity to connect with the places they visit and through the lectures and stories from the local community. If we want to understand the Arctic from a holistic viewpoint, we have to learn first and foremost from the people that are living there. We want to teach a course about the Arctic in the Arctic, together with the local community," emphasizes Berge.

In Anchorage, plans include visits to the University of Alaska Anchorage, the city hall, and several museums. The participants are scheduled to return home in mid-September.

Leaving Edmonton on a charter flight. Photo: Karine Nigar Aarskog

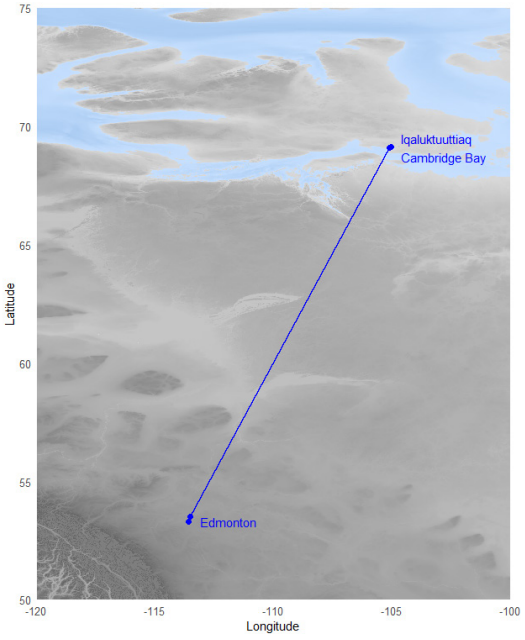
Transfer to Iqaluktuuttiaq/ Cambridge Bay, 30.08.2025

Maximilian Stimmel, Erlend Rimereit

We had an early start at 06:15 am, catching a bus to a chartered flight from Edmonton to Iqaluktuuttiaq/Cambridge Bay. Everyone was on time, and the bus was completely filled with our luggage, food and educational material that we needed to bring with us to Iqaluktuuttiaq/Cambridge Bay.

The days in Edmonton were characterised by hot weather, 33°C, and clear blue skies. Finally, we are leaving the hot, busy, truck-infested Canadian city to head to the Arctic. Although we were warned, many were surprised by the hot weather and were not well equipped for the heat.

We received our bags from NOFI, and everyone has been struggling to fit them into their backpacks - but we think that we will



Route from Edmonton to Iqaluktuuttiaq on August 30th. Map: R

Luggage and some students outside CHARS accommodation. Photo: Karine Nigar Aarskog.

be glad of the extra layers in just a few hours!

We waited at the charter terminal for our flight and boarded, slightly late, at 09:20. We had a calm flight until shortly before landing, when the weather suddenly changed from clear blue sky to cloud, thick fog and very strong gusts of wind. On entering Iqaluktuuttiaq/Cambridge Bay, after a warm welcome from Navaliq, we waited at the airport for our luggage.

After our arrival and check-in at CHARS (yay, another piece of luggage was lost), we had some free time and walked around the city, talked to the locals and got a first impression of the city on our own. In the afternoon, it was time for dinner at the Arctic College, which turned out to be a little hard to find - but with some help, all of us arrived (almost) on time.

Dinner was a soup with Arctic char, vegetables, rice and juice. After dinner, we got to taste the locally smoked char together with some Californian orange.

After we got the latest update of the programme and regarding the sleeping situation (strong winds made it impossible for the first group to camp, so they joined the other group at CHARS instead), we went back to the facility to end the evening and get some much-needed sleep.

Word of the day: Iqaluktuuttiaq – Cambridge Bay.

Students together with elders during a teaching break at the Arctic college in Iqaluktuuttiaq.
Photo: Karine Nigar Aarskog

In Iqaluktuuttiaq/ Cambridge Bay, 31.08.2025

Lucia Mandelkow, Nikiforos Staveris

The day started with snow. We had a nice breakfast with croissants and muffins and started the day's teaching with a session from Melania. This one was about the course requirements. Afterwards, we had a TED Talk about diary writing by Monika. This was very inspiring, and many of us now consider starting our own research journals to write down our thoughts about theories in our research. Then Sarah taught us about various Arctic organisations that work with youth research and the inclusion of Indigenous peoples in the Arctic field of science. Something that was particularly interesting was the Polar Year that is happening in 2032–33, which will be the first Polar Year to involve many young people and Indigenous peoples. We liked the slogan 'nothing about us without us', which was new to many of us.

After the very enlightening session with Sarah, we went on to learn about place-naming studies with Ekaterina. She taught us the difference between toponymy and critical toponymy, and that all names have political intentions embedded in them. 'More Indigenous territory has been claimed by maps than by guns.' Miyuki had some very important perspectives on this, and again reminded us of the importance of including emotions in your scientific research.

The last class of the day was with Ana Luisa and Miyuki, who explained the impacts of colonialism across the world and the personal effects it has on people, especially on Indigenous people. At the beginning of this session, we had an exercise to walk slowly outside in the wind and take a small rock with us that we found

Students walking from their accommodation towards the village in Iqaluktuuttiaq.
Photo: Andreas Altenburger

beautiful. They also made us write down provocative/honest questions we have about Iqaluktuuttiaq on Post-its, which we will discuss at a later point. We are already looking forward to that.

We finished the day with a team-building exercise session with Sarah, where we further got to know our peers. This included games and one-on-one random conversations to spark contact with people we hadn't spoken to before. The day ended with pizza, and the locals invited us for food and a film (The Lion King). Many students still have homework to do, and the educators will spend time preparing for tomorrow's lessons. The weather is sunny now, so many chose to go for a walk.

Iqaluktuuttiaq is the centre of government for Kitikmeot, the administrative and transportation hub for this region of Nunavut. Photo: Karine Nigar Aarskog

Iqaluktuuttiaq – the good fishing place

Karine Nigar Aarskog

This news piece was originally published on August 31st, 2025 on uit.no.

The community of Iqaluktuuttiaq/ Cambridge Bay is located on the southeast coast of Victoria Island, in the heart of the Northwest Passage.

In the language Inuinnaqtun Cambridge Bay is called 'Iqaluktuuttiaq' because it is a 'good fishing place.' Archaeological sites found all over this enormous island – the eight biggest in the world – prove that indigenous peoples have been living in this part of the Canadian Arctic Archipelago continuously for the last four thousand years.

Iqaluktuuttiaq is the centre of government for Kitikmeot, the administrative and transportation hub for this region of Nunavut. It is the largest stop for passenger and research vessels traversing the Northwest Passage. The hamlet is located close to the Ekalluk River, which is famous for giant char. The Ekalluktogmiut people come from there.

The short section of the river that flows from Ferguson Lake to Wellington Bay is called 'Iqaluktuuq' in Inuinnaqtun, meaning 'place of big fish.' Its people are the Iqaluktuurmiut. This ancestral region of Nunavut has been inhabited for 4,000 years. It is rich in archaeological history and blessed with abundant fish, seals, geese, muskoxen and caribou. The Inuit people of Iqaluktuuttiaq, from the eastern and southern parts of Victoria Island, speak Inuinnaqtun – a different language from Inuktitut – because they are Copper Inuit people, descendants of the ancient Thule with their own distinct and unique traditions.

Iqaluktuuttiaq is located in Nunavut, Canada, in the Northwest Passage. Map: Google Maps

Gjøa and Maud

The Norwegian explorer Roald Amundsen visited the Iqaluktuuttiaq area with his ship Gjøa in 1905 when he discovered the Northwest Passage. He arrived in Alaska in 1906. In 1918 he traversed the same route back from west to east in his new ship called the Maud. The Hudson Bay Company purchased this vessel as a fur trading supply ship, arriving in Iqaluktuuttiaq in 1921. The Maud was used for years before it sank into the harbor. Its exposed hull has been a Iqaluktuuttiaq landmark for 80 years. In 2017 Norway was retrieving it.

In 1947 a long-range navigational LORAN tower was constructed in Iqaluktuuttiaq. The construction project involved hiring many Inuit workers who later remained in the area. In 1954 a Catholic church was built using seal oil and sand as mortar. A Distant Early Warning military base was constructed here that same year. The DEW site revised its mission in 1989. It remains operative today as part of the joint United States and Canadian North Warning System.

The student Mathis Jacob Schultz is looking at a map over the Arctic with Indigenous place names. Photo: Karine Nigar Aarskog

The path towards reclaiming Indigenous place names is long and arduous

Ekaterina Mikhailova, Karine Nigar Aarskog

This entry is based on the lecture on indigenous place names given on August 31st, 2025 by Ekaterina Mikhailova, Associate Professor of Border Studies at the UiT, and transcribed by Karine Nigar Aarskog, Senior Advisor at UiT Communications. It was published on October 10th, 2025 as an opinion piece on sciencenorway.no.

The Indigenous peoples' struggle for the right to call their land by 'its true name' continues. Ella Marie and Katarina Barruk's recently released song "Oahpes Namat" is a reminder of that.

Although the issue of recognising and protecting Indigenous place names has been the subject of heated debate and activism

Ekaterina Mikhailova during a hike to Uvayuq/ Mount Pelly, which is located some kilometers from Iqaluktuuttiaq/Cambridge Bay. Photo: Karine Nigar Aarskog

Sign on the airport of Iqaluktuuttiaq/Cambridge Bay. Photo: Ekaterina Mikhailova

There exist different maps showing the Indigenous placenames in the Arctic. Photo: Karine Nigar Aarskog

over several decades, it remains highly topical worldwide, particularly in the Arctic.

The recently released Sámi song *Oahpes Namat* (The names we know) by Ella Marie and Katarina Barruk reminds us that the struggle of Indigenous people for the right to call their land, in the words of singers, by 'its true name' continues. The song was released in October this year.

Restoring Indigenous place names on maps and in everyday language is an important step toward social justice.

Indigenous place names are more than just geographical designations. They carry history, culture, and identity, representing a living tradition that connects people to their surroundings. Yet, throughout history, these names have been overshadowed and distorted by colonial power structures, contributing to the erasure of Indigenous presence and history.

Naming as an exercise of power over space

Naming is never a neutral act; it is always political. Every place name carries a logic and a power structure. Whether it is a ruling elite, a privileged class, a king, or a dictator, certain social groups and individuals exercise the authority to name places in accordance with their values, celebrated historical events, and honoured figures, while others do not. Thus, the disparity of power is replicated in the space around us.

Through colonisation, place names have been used as tools to control and legitimise territories. Colonial cartographic traditions saw new lands as *terra nullius*, a place void of history and culture that is 'waiting' to be named and mapped.

Such colonial mapping of territories erased Indigenous place names, and with them the connection between Indigenous peoples and their lands, from both maps and collective memory, thus contributing to the marginalisation of Indigenous peoples and their cultures.

One example of this can be found in Iqaluktuuttiaq/Cambridge Bay in Nunavut, Canada. This name was given by British and Canadian explorers in the 1880s and does not reflect the area's history or significance to its original inhabitants.

The original name, Iqaluktuuttiaq, means 'the good fishing place' and tells a completely different story – a story about the landscape, resources, and the people who have known and used these lands for generations.

Indigenous place names as a mirror of Indigenous people's worldview

Indigenous place names are often rooted in experiences, sensory impressions, and deep knowledge of the landscape. They offer a window onto a different worldview, a different relationship between nature and

Indigenous Place Name Sign in the Earthquake Park, Anchorage. Photo: Ekaterina Mikhailova

humans: one of coexistence, where humans are part of nature rather than being 'the other', 'the superior.'

Indigenous place names are descriptive; they tell of geographical features, available resources and historical events. They exist as a system in which the names relate to each other as a chain of experiences and stories. Passed orally from generation to generation over hundreds of years, Indigenous place names serve as a vital aide for wayfinding and the transfer of accumulated knowledge.

By reintroducing and valuing these names, we can help create a society that is more just, inclusive, and respectful of those who came before us.

In some cases, the disregard of Indigenous place names and centuries-old wisdom they encapsulate has had catastrophic consequences.

The Great Alaska Earthquake of 1964, the strongest ever recorded in North America to date, caused enormous destruction, including a landslide in the Turnagain Heights neighbourhood of Anchorage with 75 homes reportedly destroyed.

The ground subsided more than 10 metres and shifted more than 350 metres from its original location.

Today, the area where the destroyed neighbourhood once stood has been transformed into Earthquake Park, with memorials and information panels telling visitors about the history of Anchorage before and after the earthquake.

One of these panels reminds us of the Indigenous name for this area: *Nen Ghiłgedi*', which means 'rotten land.' This name indicates that the Dena'ina, the Indigenous people of this part of Alaska, were aware of the instability of the soil in this region and did not establish permanent winter villages or seasonal camps there.

As this example reminds us, learning Indigenous place names is a way to orient oneself – not just geographically, but also culturally and historically. By recognising and using these names, we can make Indigenous history and culture more visible, while also addressing the colonial structures that continue to influence us today.

Restoring Indigenous place names: a challenging and delicate mission

Restoring Indigenous place names on maps and in everyday language is an important step toward social justice. It is about more than visibility; it is about recognition and challenging the colonial power structures that still shape society.

The work of organisations like the Inuit Heritage Trust in Canada, which has documented and mapped thousands of Inuit place names, or Anchorage's Indigenous

Jack Alexander Colman was one of the students who documented signs and local place names in Iqaluktuuttiaq/Cambridge Bay, as a research assistant for Ekaterina Mikhailova.
Photo: Karine Nigar Aarskog

Place Naming Movement, which has been transforming the most populous Alaskan city into a space where Indigenous place names are remembered and honoured, demonstrates how this can be done in practice.

However, bringing Indigenous place names into active use is not a straightforward task; rather, it is a laborious and delicate mission. On the one hand, Indigenous place names are often in languages that are unfamiliar to the majority population. This can make it difficult to integrate them into everyday language and maps.

A potential solution is to develop interactive maps where the names are not only displayed but also explained with their meanings and histories. This can help bridge cultural divides and increase understanding of Indigenous perspectives.

On the other hand, in the effort of restoring Indigenous place names, it is important to avoid a superficial or commercial use of Indigenous place names. When such names are used without respect for their original meanings, as seen in some examples from the tourism industry, we risk reducing them to decorative elements without genuine recognition of their meaning and cultural value.

The current path to reclaiming Indigenous place names is a vivid testimony that these place names are not just a part of the past; they are a key to understanding the present and shaping the future. By reintroducing and valuing these names, we can help create a society that is more just, inclusive, and respectful of those who came before us.

Margo Neglak (left) and Navalik Tologanak (right) talking about their experiences in Canadian residential schools. Photo: Karine Nigar Aarskog

In Iqaluktuuttiaq/ Cambridge Bay, 01.09.2025

Nathaniel Holloway, Mathis Jacob Schulz

08:00 - Breakfast at Nunavut Arctic College
09:00 - The outreach team prepared for short interviews they would conduct throughout the day. The idea is to present the course participants, their backgrounds and their motivations for the course.
09:30 - Lecture on the discovery of HMS Terror and related stories from Uqsuqluuq (Sammy Kogvik and Adrian Schimnowski)

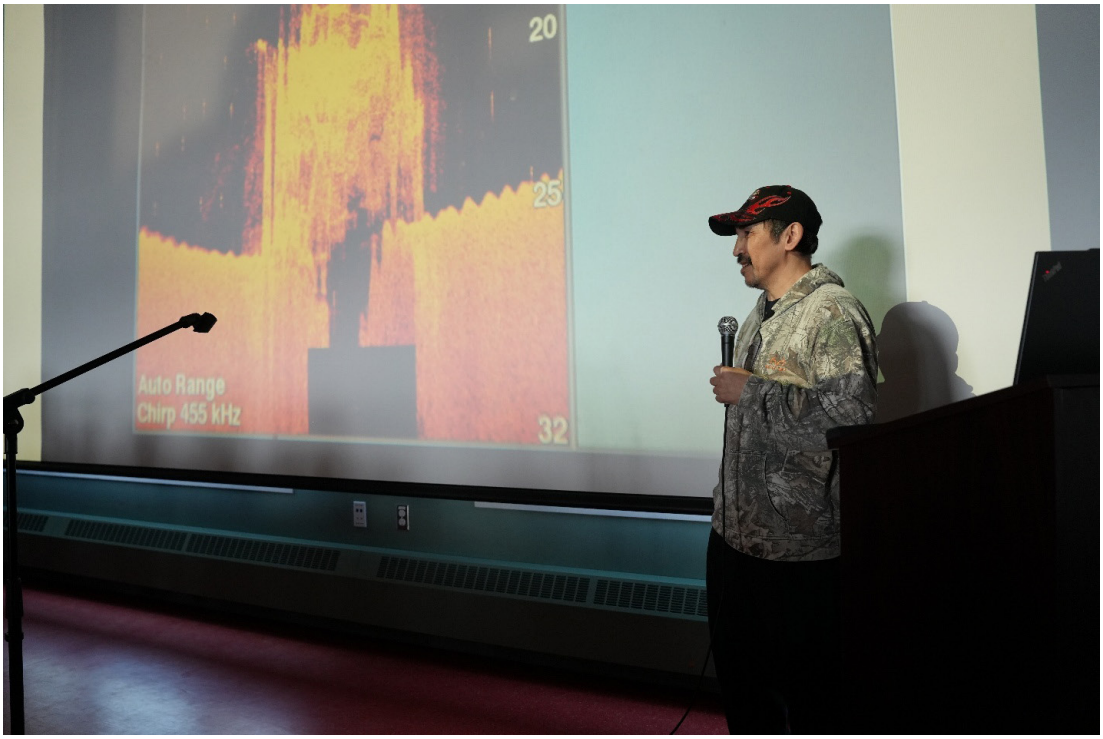
Story retold of the discovery of HMS Terror and HMS Erebus. Sammy knew its location for seven years, but due to the ignorance/lack of humility of Western researchers and unfortunate incidents (e.g., losing his wife's camera) the wreck was not found sooner.

Video of the discovery was shown, with images and audio of all crew members, ensuring everyone was included and credited for their discovery, including, and most importantly, Sammy.

The takeaway is what is possible when you combine and integrate different knowledge systems (Inuit Qaujimajatuqangit and Western science) for a greater purpose: "Collaborate and listen to people where you do research" (Adrian).

The discovery sparked competition between different stakeholders. Importance of understanding the tensions between state and Indigenous governance of the environment and things within the environment. How states can easily shape the narratives on archaeology and history, more broadly, to serve their ideology, interests in power and sovereignty, etc. History is power.

The discovery signalled potential for investments in local communities which



Sammy Kogvek presenting the discovery of HMS Terror and HMS Erebus at Nunavut Arctic College. Photo: Karine Nigar Aarskog

have not manifested and which do not seem to be on their radar.

'Patience will be rewarded' (Adrian). This discovery came about in a very fluid and natural way, which requires patience, and this approach is key for work with communities moving forward.

11:30 – Film screening (Silent Cries – Qiayunik Tuhanak) and discussion on residential schools and healing with Navalik (English name Helen, but she finds it important to use Navalik as this was her grandpa's name) and Margo.

The film shows Pope Francis's visit to apologise for the atrocities of the residential school system in Canada.

A podcast recording of Navalik speaking about her experiences in the residential schools.

Reconciliation is crucial and is slowly happening in Inuit Nunnat. There is a need to document and recount the story to ensure it is never lost and never repeated.

The need for inclusion and collaboration to address the issues from the residential schools.

Residential schools removed children from their communities and families, creating many impacts which take much time to address, such as not recognising their home and not being recognised by their own communities and family members, losing the language and cultural practices, and losing identity and belonging in their homes.

Trauma is intergenerational and long-lasting, impacting an entire generation with long-term effects, which are now manifesting as substance abuse and suicide, to give examples.

There is much hope for future generations, with schools in communities and people having access to opportunities in their communities, allowing them to remain with family. But going to university is still a

Monika Gabriela Bartoszewicz teaching on security at the Nunavut Arctic College.
Photo: Karine Nigar Aarskog

southern-based exercise, so this will need to be addressed.

14:00 - Lunch

15:30 - Lecture on Societal Security with Monika Bartoszewicz

What is security? What different definitions and schools of thought exist, and how do they interact?

We had a discussion about which means are justified to ensure security, especially violence alongside laws and institutions.

Presentation of the alternative approach to security, which depends on what value security has in a society (e.g., a society at war = prime value), meaning context matters. However, in an interim discussion we tried to elaborate on a state-centred understanding of security within that approach.

Normative (focus on means, moral) vs instrumental (focus on outcomes, rational) approach to security. Introduction to the concepts of state and human security. Copenhagen School and sectors of security (state, societal, political, environmental and economic) and the process of securitisation and the creation of threats.

Unfortunately, we did not touch upon the question of what security means to Indigenous people.

Then we talked about societal identity and belonging as being under threat, meaning that not only material or physical goods are included in security, but also concepts like personal/individual/societal identity. The understanding presented to us, however, neglected the constant nature of societal change and heterogeneity, also of identity.

Also, threats in that sense may be only imagined but still used, and can thus have a real-life effect.

This lecture sparked a lively discussion.

17:00 - Presentation on research and science-diplomacy at different scales by Rasmus and David Hik

Researchers are also diplomats when official diplomatic channels are closed. Science becomes a form of diplomacy, but this can be controversial depending on the

David Hik during his lecture in Iqaluktuuttiaq/Cambridge Bay, Canada. Photo: Karine Nigar Aarskog

funders and supporters of the research, and the underlying motives and beneficiaries of the research.

Discussed the securitisation of research and academia, e.g. with the Russian icebreaker mapping Canadian waters even more extensively than the Canadians have.

Rasmus introduced the concept of 'moral panic' in Western countries when it comes to scientific exchange.

He also discussed whether to emphasise 'great strategic science' (by great powers, military) vs 'small science' (smaller nations, civil science), rather than the classical 'East vs West'.

'Intelligence–academia' as a buzzword (e.g., Russian spy at UiT).

David discussed a more micro-scale of science-diplomacy, specifically with Indigenous communities, by addressing real problems and research priorities identified by these Indigenous communities (e.g., wildfires, permafrost thaw, food security, floods).

Introduced CHARS and Polar Knowledge Canada and its role in science-diplomacy, and in ensuring a healthy and prosperous Nunavut population through capacity-building.

'You will never outrun the future' (in reference to the flood in Tuktoyaktuk and the erosion-prevention efforts) (David). There is a need for significant and ongoing investments and resources, given the rate of change and vulnerability of these environments.

How can we strengthen science diplomacy and cooperation in the light of rising national interests?

Indigenous peoples should not only be included, but rather form the foundation of future Arctic research.

18:00 - Supper

19:00 - Maude model ship discussion; will be gifted to elders on 2 September 2025

21:00 - Setting up camp

22:30 - Night watch starts.

View from the Arctic College. Photo: Andreas Altenburger

Students getting ready for camp. Photo: Karine Nigar Aarskog

Sammy Kogvik (left) and Adrian Schimnowski together in Iqaluktuuttiaq/Cambridge Bay. Photo: Karine Nigar Aarskog

Indigenous Knowledge Leads to Discovery of HMS Terror

Karine Nigar Aarskog

This news piece was originally published on September 5th, 2025 on uit.no.

An Inuit hunter's story has led to one of the most significant Arctic discoveries in recent history: the HMS Terror, a ship lost for almost 200 years as part of the ill-fated Franklin Expedition.

Sammy Kogvik, a local hunter from the Arctic community of Gjoa Haven, first spotted a mast sticking out of the ice in an Arctic Bay at the shore of King William Island in the Northwest Passage, during a hunting trip around 20 years ago.

Despite his attempts to revisit the site, the mast had mysteriously disappeared. His story, rooted in oral history and personal experience, remained untold until several years later he met Adrian Schimnowski, one of the expedition leaders of a multi-faceted collaborative government agency, not for profit, and Inuit communities.

During a research mission in 2016, Adrian Schimnowski listened intently as Kogvik recounted his experience. Trusting the hunter's knowledge, Schimnowski made the bold decision to divert their ship to the bay that Kogvik once saw the mast. Guided by Kogvik's memory and expertise, the team stumbled upon the HMS Terror, perfectly preserved in the icy waters of the Northwest Passage.

Kogvik and Schimnowski talked about the discovery to the students who attended the Arctic Future Pathfinders course in Iqaluktuuttiaq (Cambridge Bay).

Missing for nearly Two Centuries

The discovery was a groundbreaking moment in Arctic exploration, highlighting

Sammy Kogvik together with Adrian Schimnowski. They talked about the finding in front of the students who attended the Arctic Future Pathfinders course. Photo: Karine Nigar Aarskog

the critical role of Indigenous oral histories in uncovering historical mysteries. Sammy Kogvik's story, combined with modern sonar technology, led to the unearthing of the shipwreck, which had been missing for nearly two centuries.

"This discovery wouldn't have been possible without Sammy's guidance," Schimnowski said.

"It's a testament to the power of collaboration and the importance of listening to the people who know the land."

The HMS Terror, part of Sir John Franklin's doomed 1845 expedition to find the Northwest Passage, was found in pristine condition, with its anchors deployed and hatches sealed. Researchers believe the ship sank slowly as ice melted, preserving it in near-perfect form.

A Call for Action for Collaboration

However, the journey to the discovery was not without challenges. The team faced lost cameras, murky waters, and bureaucratic hurdles. Despite these obstacles, the discovery has sparked global interest and reignited discussions about the importance of respecting Indigenous knowledge and cultural heritage.

The find has also raised questions about ownership and the ethical handling of historical artifacts. While the ship is technically owned by the British Crown, many believe it should belong to the Inuit people, whose oral histories played a pivotal role in its discovery.

Sammy Kogvik, reflecting on the experience, said, "I just wanted to find the mast again. I'm glad we could show the world what was hidden in the bay."

The HMS Terror's discovery is a powerful reminder of the Arctic's mysteries and the value of blending Indigenous wisdom with western exploration. It also serves as a call to action for researchers to collaborate with local communities and honor the stories that have been passed down through generations.

Students and elders around the Qulliq (a carved soapstone seal-oil lamp). Photo: unknown

In Iqaluktuuttiaq/ Cambridge Bay, 02.09.2025

Paige Bodnar, Catherine O'Neill

09:00 – Hot breakfast at CHARS
10:00 – Community Presentation with the Elders

The story behind the Qulliq (a carved soapstone seal-oil lamp), how it was used for warmth, drying, cooking and light. Inuit women used a mix of Arctic cotton and seal oil to keep the lamp burning the whole day. It could mean the difference between −50 and 0 degrees Celsius in the camp.

Drum Circle. We witnessed two beautiful songs from the drum-circle group and learnt about the meaning behind some of the songs and how the revitalisation of drum dancing has been an important act in the community.

Presented a model of the ship Maud to the community as a symbol of our gratitude and desire for continued reconciliation and collaboration. The Maud was commissioned by Roald Amundsen of Norway for an expedition and exploration through the Northwest Passage. Amundsen travelled through Iqaluktuuttiaq and learnt from the Inuit community, which many believe was the reason he survived up north. The Maud was bought by the Hudson's Bay Company and operated in Iqaluktuuttiaq for many years before she sank just off the shore. The wreck remained part of the community for more than 85 years before she was refloated and brought back to Norway.

12:30 – Lunch
13:30 – Sunshine break; enjoy a brief walk and chat outside CHARS
14:00 – Storytelling

Mary and Mabel spoke about being born in an igloo, and Annie was born in a caribou camp. They would travel by dog sled to meet up during Christmas and Easter. They used to navigate by the stars and snowdrifts. They commented that the addition of LORAN aided trans-island navigation because it acted as a waypoint.

Students and elders at the CHARS Research Station, with the model of the ship Maud in the foreground. Photo: Karine Nigar Aarskog

When asked about the future, the Elders emphasised fear that their language and art would become lost. The Inuinnaqtun language is no longer predominant, and the Elders feel they speak more English than Inuinnaqtun. Another Elder emphasised that she had experienced so much in life that she tries to live in the moment instead of focusing too much on the future.

15:30 – River with George

We went down in the trucks to the river to watch and learn from George how to cast a gill-net with the goal of catching char. He spoke of feeling first-hand the ebbs and flows of the char population due to overfishing. He discussed how the community self-regulated and limited gill-net fishing, and was able to recover the population. George spoke of being born and raised in an igloo; notably, he said temperatures used to drop as low as −80°C after wind-chill, and after mid-September they would never be in temperatures above zero degrees until the following June.

Students together with George while putting out the gill-net. Photo: unknown

17:00 – Ditte: Presentation on Greenlandic Health Care Issues

Through an interactive exercise we discussed some of the larger issues within the Greenlandic health care system, such as structural neo-colonialism, lack of funding, transport and supply-chain problems.

18:00 – Dinner

19:00 – Debrief and schedule discussion.

Drum dancing is an important part of the Inuit culture. Here conducted by Jeremy Ogina.
Photo: Karine Nigar Aarskog

A tribute to the land and nature

Karine Nigar Aarskog

This news piece was originally published on September 3rd, 2025 on uit.no.

The students in the Arctic Future Pathfinders course are getting up close with the local community and Inuit culture in Iqaluktuuttiaq/Cambridge Bay. On Tuesday, they experienced drum dancing.

On Tuesday, an open day was held at the research station in Iqaluktuuttiaq (Cambridge Bay), the Canadian High Arctic Research Station (CHARS). The students in the Arctic Future Pathfinders course had the opportunity to meet several elders from the community, who shared stories about their lives. Additionally, they experienced drum dancing, an important part of Inuit culture.

One of the dancers, Julia Ogina, introduced the performance by reflecting on the significance of the songs and dances they performed:

"These songs are like a window into the lives of my ancestors. When you understand the stories they created, you see their journey and way of life. The songs are not just words but a tribute to the land and the animals that have been the foundation of our existence," says Ogina.

She explains how the songs are often based on stories from hunters who share their experiences after long journeys. These stories become songs that are passed down through generations.

"Each dance and song tell a story – about the journey to the east, south, west, and north. About encounters with people, animals, and the riches of nature. It is a way to understand and respect the world around us," Julia Ogina explains.

The oil lamp is important in the Inuit culture. Photo: Karine Nigar Aarskog

Some of the elders came to tell stories from their lives. Photo: Karine Nigar Aarskog

Julia Ogina (right) explained the meaning of the songs. Photo: Karine Nigar Aarskog

Elias Vinsrygg, Paige Riley Bodnar and Miyuki Daorana handed over the model to the elders. Kitty Taipagak is number three from the left, Annie Pannaq number four. Photo: Karine Nigar Aarskog

Maud's return to Cambridge Bay

Karine Nigar Aarskog

This news piece was originally published on September 3rd, 2025 on uit.no.

The polar ship Maud was raised in 2016 from a bay in Iqaluktuuttiaq/ Cambridge Bay in Nunavut and towed back to Norway. This week, a model of her returned to Iqaluktuuttiaq.

Inside a large wooden crate at the Canadian High Arctic Research Station (CHARS), the model ship Maud stands. Soon, three students from the Arctic Future Pathfinders course will present her as a gift to the local Inuit community.

Here in Iqaluktuuttiaq, many people have a connection to the name Maud: the ship spent nearly 100 years here and was a familiar—and for many, beloved—sight in the bay outside the town. Norwegian polar explorer Roald Amundsen had the ship built to drift across the North Pole, an expedition that began in 1918.

He managed to navigate the Northeast Passage, but the expedition to the North Pole failed. Instead, Maud remained in Iqaluktuuttiaq. In 1930, she sank in shallow water and for many years was a landmark in the town. In 2016, work began to tow her back to Norway, a process completed in 2018.

A Long Journey

The model ship Maud has also had a long journey: Kristiansand– Romssa/Tromsø–Nuuk–St. John's–Edmonton–Iqaluktuuttiaq. Some legs were by plane, others aboard the sailing ship *Statsraad Lehmkuhl*. On the flight from Edmonton to Iqaluktuuttiaq, she was placed inside the cabin with the students to ensure she made the journey safely. Finally, she has reached her destination.

"We wanted to give the local community in Iqaluktuuttiaq a gift, and it felt natural for

Maud while she was still in Iqaluktuuttiaq/Cambridge Bay.
Photo: Cambridge Bay Weather/Creative Commons

Roald Amundsen in Mauds salon. Photo: National library of Norway

The model ship Maud is a gift from UiT to the society in Iqaluktuuttiaq.
Photo: Karine Nigar Aarskog

The model of Maud had her own seats on board the plane from Edmonton to Iqaluktuuttiaq/ Cambridge Bay and was safely fastened with seat belts. Photo: Karine Nigar Aarskog

us to bring a model of Maud, since it is so connected to this place" says Jørgen Berge, Pro-Rector for Research and Development at UiT.

Valuable Time in Nunavut

The original plan was for the entire course to take place aboard *Statsraad Lehmkuhl*, through the Northwest Passage, arriving in Iqaluktuuttiaq midway. When *Statsraad Lehmkuhl* had to turn south, UiT decided to disembark and fly to Iqaluktuuttiaq to stay in the town for a week. This allowed the students to spend more time with the local population and gain valuable insight into Inuit culture.

"Working on Arctic issues involves understanding the many factors at play—people, culture, and the history of oppression. It requires us to acknowledge the weight of the injustices done to those who live here. It's not enough to listen; we must give people real opportunities to influence decisions that affect their own homes," says Elias Vinsrygg, a participant in Arctic Future Pathfinders and a student at NBMU.

Experiencing Inuit Culture

On this day, the students are participating in an open day at CHARS, where elders share stories about their lives and culture. The students have just witnessed a drum dance performance by local Inuit. Now, Vinsrygg and two other students are preparing to present the model ship Maud. As they approach the gathering with the model, a sense of anticipation fills the room.

"Maud?"

"Is it Maud?"

"Maud."

The name buzzes among the Inuit present. A man begins to cry as he recounts how his parents were married aboard the ship.

"It Was an Honor"

"We were glad that Maud was retrieved, as she didn't belong to us, but at the same time, we felt a certain loss when she was gone. The ship brought joy and was a gathering point when we were camping out in the bay," says Kitty Taipagak.

"We are grateful to receive this model back in Cambridge Bay," says Annie Pannaq.

Roald Amundsen is also held in high regard in the local community:

"Amundsen tried very hard to complete his journeys. He collaborated with the Inuit, and the Inuit collaborated with him, providing him with warm clothing made from sealskin and caribou. That's why Amundsen and his crew succeeded in their journeys," says Navalik Tologanak, who is one of the elders.

Elias Vinsrygg says it was an honor to present the model.

"At the same time, we were a bit nervous after hearing how much the ship meant to the community. But it seemed like the elders were happy and grateful, so it was a good feeling," says Vinsrygg.

Sitting in a hut and eating fish together with the elders. Photo: unknown

In Iqaluktuuttiaq/ Cambridge Bay, 03.09.2025

Carina Kraemer, Evelina Silokangas

Our day began with a lecture from Iva on Plantomics. To make it more tangible, some of us even donated DNA samples via saliva. As she spoke, she opened a window into how plantomics could play a role in ensuring food security in a rapidly changing Arctic. She also described how this research can act as a tool to look into the past, offering clues about historical sea-ice coverage.

When the lecture ended, we headed out onto the land with Adrian and George to check the nets that had been set out the day before. Pulling them in, we collected around seven or eight fish, which we carried back to camp. George told us about the Arctic char and how their seasonal rhythm is now shifting. This part of the fishing season is nearly over, as the char begin their move into the lakes to spend the winter months.

Back at camp, we gathered for lunch with Rasmus and Aleqa Hammond, the first female prime minister of Greenland. She gave a powerful speech, reflecting on Greenland's history, its present challenges and her vision for the future. Her words sparked thoughtful questions and discussions around the table.

The afternoon brought us together with the elders at camp. They shared food and stories, weaving knowledge and tradition into every bite of frozen Arctic char, caribou and narwhal. We also watched as two of the fish from the morning catch were carefully cut and prepared to be hung and dried, a glimpse into the preservation methods that have sustained communities here for generations.

Later, part of our group joined students from the Arctic College for games, while others continued to spend time with the elders, listening and learning.

Pulling in the gill-net with Arctic char. Photo: Karine Nigar Aarskog

As the day moved on, Frederic introduced us to the field of Physical Oceanography in the Arctic. He explained the fundamentals of ocean circulation and sea ice, and with the help of his assistants, brought the science to life through a hands-on experiment.

Dinner offered a moment to pause and recharge, before we returned once more to learning. Yasemin led a session on marine carbon and export, explaining the intricate workings of the ocean's carbon pump. She showed us how it shifts with the Arctic's seasons, and how climate change might reshape these delicate processes.

Finally, the group came together for an information meeting to hear about the plans for the next day. The session also included organising logistics and assigning bear-guard shifts for the night.

Lucia Karoline Mandelkow (left) and Paige Riley Bodnar helped conducting an experiment to show how the cold and warm water behave. Photo: Karine Nigar Aarskog

"The Arctic is the Key to Understanding Climate Change"

Karine Nigar Aarskog

This news piece was originally published on September 5th, 2025 on uit.no.

The Arctic plays a crucial role in the Earth's climate system. The region is undergoing dramatic changes that could have global consequences.

"The Arctic is a unique environment in many ways. We're talking about light conditions, temperature, energy balance, ice, freshwater, and the effects of Earth's rotation. All of this makes the Arctic a key area for understanding climate change," says Frédéric Cyr, an oceanographer at the Fisheries and Marine Institute of Memorial University, Newfoundland and Labrador, Canada.

Arctic Amplification and Ice Melt

One of the most critical factors is what is known as Arctic amplification. This refers to how the Arctic is warming faster than the rest of the planet due to a dangerous feedback loop.

Indeed, the white sea ice reflects the incoming energy from the Sun much more effectively than the darker ocean. This is called the albedo effect. But the melting of sea ice provides larger ice-free areas to absorb the Sun's heat, which in turn, contributes to more melting.

"In a warmer climate, with less ice, the ocean absorbs more solar energy. This contributes to further sea ice melt and an amplification of the warming," explains Cyr.

He notes that some areas in the Arctic have warmed up to seven times faster than the global average.

Frédéric Cyr is an educator at the course Arctic Future Pathfinders. These days students and educators are in Iqaluktuuttiaq (Cambridge Bay). Photo: Karine Nigar Aarskog

Frédéric Cyr is an oceanographer at Memorial University of Newfoundland and Labrador. Photo: Karine Nigar Aarskog

"This is one of the reasons why we are seeing a dramatic reduction in multi-year sea ice. It is likely that we will experience ice-free summers in the Arctic within the next 25 years," says Cyr.

Ocean Currents and Global Impact

Changes in the Arctic also affect global ocean currents, particularly the so-called thermohaline, or overturning, circulation, often referred to as the "global conveyor belt." This circulation is essential for regulating the Earth's climate. However, freshwater from melting ice can disrupt the system.

"After being cooled by the atmosphere in winter, warm and salty water from the Atlantic sinks near the Arctic and drives this circulation that connects all oceans around the globe. But when freshwater from melting ice is added, the water becomes less dense and does not sink as deeply. This can lead to a weakening of the circulation," Cyr explains.

"We have already seen signs of this, such as the so-called 'cold blob' in the North Atlantic, where sea surface temperatures are lower than normal," he adds.

Regional Differences and Future Challenges

Although the Arctic is experiencing significant changes, there are large regional differences.

"For example, we see that some areas in the Canadian High Arctic still have relatively stable ice conditions, while other regions are experiencing faster changes. But it is important to remember that the Arctic as a whole is extremely vulnerable," says Cyr.

He emphasizes the importance of preparing for a world with less ice.

"The disappearance of multi-year sea ice is a real possibility, and this will have consequences for both the climate and ecosystems in the region. But it is also important to remember that the Arctic is a dynamic system with extreme climate conditions, such as the polar night and the midnight sun. We must therefore continue to monitor and understand the changes undergone in this environment," Cyr concludes.

Group picture at Uvayuq/Mount Pelly, Canada. Photo: Karine Nigar Aarskog

In Iqaluktuuttiaq/ Cambridge Bay, 04.09.2025

Ingrid Aamodt, Elias Vinsrygg

We started the day as usual, with breakfast at 08:30. Together with the breakfast, there were also lunch boxes being delivered and preparations being made for the excursion of the day.

The event of the day was the excursion to Oovayuk (Mount Pelly). Although we were supposed to leave at 09:30, we ended up leaving at 10:30 due to some challenges with the obtaining of vehicles. The organisers were, as always, solving issues as we went, and we ended up borrowing a bus for the transport to the mountain. The drive to the mountain was about an hour long, on gravel roads that were at times really bumpy.

When we got to the mountain, we walked up to an old lookout point called an Inukhuk. There we ate our lunch boxes on the top of the mountain, and then started the trip back home. As most of us were hiking, a few people also stayed by the lake where we had parked our vehicles, as they wanted to try their luck with fishing rods. They actually caught two fish: one char and one lake trout.

On the way back, three sporty participants and one educator decided that they would attempt to run alongside the vehicles. They ran 16.5 kilometres of the way back home.

When we got back to Iqaluktuuttiaq/ Cambridge Bay, we divided into pre-decided groups and properly cleaned the Elders' Palace, the camp and the CHARS apartments where we had been sleeping after arriving in Iqaluktuuttiaq/Cambridge Bay. This was done both because most of the group were switching sleeping situations, and to show respect to the people who had let us borrow the sleeping areas. The people who had previously slept in the camp were moving to the CHARS apartments, and vice versa.

After the cleaning, we had dinner, which consisted of chicken wings, chicken wings and more chicken wings, with a side of doughnuts. Then we had a meeting, moved; the people who moved to camp had an information meeting about the bear watches and a bonfire, and then we all went to bed.

Sarah Strand is the Director of APECS and a part of Arctic Future Pathfinders, now in Iqaluktuuttiaq/ Cambridge Bay in Nunavut. Photo: Karine Nigar Aarskog

Collaboration, Youth, and Indigenous Knowledge

Karine Nigar Aarskog

This news piece was originally published on September 2nd, 2025 on uit.no.

Collaboration, co-creation, and the inclusion of Indigenous knowledge are key to achieving systematic changes in the Arctic research community, according to APECS Director Sarah Strand.

"I want to emphasize to the students that it is important to work on different levels," says Sarah Strand, Executive Director of APECS (Association of Polar Early Career Scientists), Senior Advisor at UiT, and an educator at Arctic Future Pathfinders.

This week, 30 students and 20 lecturers are gathered in Iqaluktuuttiaq/Cambridge Bay, in the heart of the Northwest Passage in Nunavut. Although the sailing vessel *Statsraad Lehmkuhl* could not navigate through the passage, UiT chose to hold parts of the course in this village. One of the lessons is about co-creation to include Indigenous perspectives and the local societies.

"On a personal level, it's about the relationships the students are building here and now. But as they progress in their careers, they can also engage in ways that can actually lead to systematic changes over time," says Strand.

Youth Programs in the Arctic

One example she highlights is the Youth Together for Arctic Futures project, led by the WWF Global Arctic Program in collaboration with the Sámi Council, UiT, APECS and three other partners. The program brings together youth from the Arctic, Indigenous Peoples' communities, and Europe for workshops on Arctic policymaking.

"This has been a very fruitful program that fosters understanding and connections between different groups," says Strand.

The Sámi Council has also established a youth group that receives long-term mentorship.

"This is a model that has worked well, and

The students learn to think interdisciplinary and focus on the future at the course Arctic Future Pathfinders. Photo: Karine Nigar Aarskog

David Hik during a lesson for the students at the course Arctic Future Pathfinders.
Photo: Karine Nigar Aarskog

we are now discussing the possibility of expanding this to exchanges between youth groups in different regions, such as Nunavut," says Strand.

David Hik, Vice President of Research at Polar Knowledge Canada, agrees that collaboration is essential to addressing the complex challenges in the Arctic. The organization, which recently celebrated its 10th anniversary, is headquartered in Iqaluktuuttiaq.

It is responsible for advancing knowledge of the northern regions, supporting research, and fostering innovation. Hik describes Iqaluktuuttiaq/Cambridge Bay as "the heart of Canada's northern research" and explains that the research station, CHARS (Canadian High Arctic Research Station), serves as a hub for research and collaboration.

"Our work is built on collaboration – with other federal agencies, academic institutions, international partners, and, most importantly, with Indigenous leaders and northern communities," says Hik.

Hik, who is also a professor at University of Alberta, and Simon Fraser University, highlights the dramatic effects of climate change in the northern regions, such as delayed ice formation, increased risk of wildfires, and impacts on wildlife. In 2023 alone, wildfires in Canada released record-high amounts of carbon, exacerbating global climate change.

"This is not just a local crisis – it is a global challenge," he emphasizes.

Innovation and Sustainability

To address these challenges, Polar Knowledge Canada focuses on cold-climate innovation, such as developing green technologies and sustainable energy solutions. Hik points out that many northern communities still rely on diesel for electricity and heating, making it crucial to find reliable alternatives.

"In the North, reliability is everything. We must ensure that the solutions we develop work under extreme conditions," he says.

International Collaboration and Indigenous Knowledge

Polar Knowledge Canada has supported researchers from 23 countries in recent years and places great emphasis on including Indigenous-led projects.

"Indigenous knowledge is not just an additional component – it is the foundation of everything we do," says Hik.

He encourages students to reflect on how their research and work can contribute to addressing the challenges in the northern regions.

"We have a unique opportunity to shape the future by building on Indigenous knowledge and strengthening collaboration across borders. Collaboration is not just a

Iqaluktuuttiaq/Cambridge Bay is located on the South East coast of Victoria Island, in the heart of the Northwest Passage. Photo: Karine Nigar Aarskog

strategy; it is a necessity. The future of the Arctic – and the world – depends on it," he says.

Principles for Data and Social Responsibility

When asked about how to build bridges between researchers and local communities, the answer from Sarah Strand is clear:

"Relationships are the most important tool. It's about building mentoring and exchange relationships that can strengthen collaboration and understanding."

Another important topic, according to Strand, are the principles for data management in research.

"The FAIR principles for data are well-known, but the CARE principles, which focus on Indigenous data sovereignty, are less familiar. It's important that researchers not only think about the technical aspects of data but also the societal implications," says Strand.

The future of the Arctic

With the upcoming International Polar Year (IPY) in 2032, Strand is optimistic about the future of Arctic research.

"There has been enormous development in the research community over the past 25 years. Now there is a strong desire to make research more inclusive and relevant to those living in the Arctic," says Strand.

Education as the Key

She also emphasizes the importance of involving young researchers in projects in the upcoming IPY.

"APECS, which was founded as part of the last IPY, works to ensure that young researchers play a central role in shaping projects. I hope the students here are inspired to contribute to this change," says Strand.

Strand believes that Arctic Future Pathfinders provides a solid foundation for the students, who are future Arctic researchers and leaders.

"The most important thing is to expose students to different frameworks and perspectives. There are no simple answers, but by combining different approaches, as we do in this course, we can make research better and more relevant," she concludes.

George together with his wife after the story telling session. Photo: Karine Nigar Aarskog

In Iqaluktuuttiaq/ Cambridge Bay, 05.09.2025

Taavi Kupila

Friday the 5th of September started as a calm night with no wind and a moderate temperature a few degrees above 0°C. The polar bear lookout shifts were in full swing at the CHARS camping area, as an Arctic fox was spotted jumping into a barrel full of rubbish. The lookout crew were able to scare the Arctic fox away, and the camp did not suffer any further disturbances for the rest of the night.

We gathered at the Arctic College to have breakfast as we do every day. Today's breakfast included bacon, scrambled eggs, pancakes and fruit, to name a few. It was utterly delicious. Big thanks to the catering team.

After breakfast we gathered for a storytelling session from our two dear Indigenous knowledge holders, Elders and dear friends, George and Sammy. George, who is known for his courage and survival skills, shared an emotional story of his youth, surviving in the Arctic and what it meant to be a man in the changing new community of Iqaluktuuttiaq/Cambridge Bay in his youth in the 1960s and 1970s. The lessons he wanted everyone to learn were about understanding the importance of education in all aspects of life, especially survival here in the harsh environment of Victoria Island.

After the storytelling session, we had a lovely visit from an Indigenous expert in the local Inuit language. She introduced us to the recently developed alphabet for the languages and what it means to work as a translator in these communities. Afterwards, we ate lunch. We had some beef stew and leftover chicken wings from the day before.

The main event of the day was a community parade hosted together with B2 Gold and the community of Iqaluktuuttiaq/ Cambridge Bay. The focus of the event was to celebrate the grand opening of a gold mine

B2 Gold event at the community hall in Iqaluktuuttiaq/Cambridge Bay. Photo: Andreas Altenburger

just south of Iqaluktuuttiaq/Cambridge Bay on the mainland. It looked like most of the community was participating, including local and territorial-level governments, the cadet school, the Canadian military and CHARS, to name a few.

The parade was cars driving from the airport up to the community centre. There were speeches from the mayor, the Premier of Nunavut and other local and regional people of significance. A few community members were awarded for their contributions to the community with medals and honours. The event also had a band and drum dancing. B2 Gold were giving out free food along with other activities for the families.

Many of the locals were happy about the opening of the mine and the job opportunities it brings. B2 Gold had also promised to invest 10 million CAD in five local communities to build housing. As there are not many job opportunities in Iqaluktuuttiaq/Cambridge Bay, locals who oppose the mine tried to look on the bright side.

The course participants were mostly critical of the whole event promoting B2 Gold. It seemed like the company was promising a lot and trying to look good, when the benefits for the communities are only in the short term.

After the parade, we had a poem exhibition at the Arctic College where many poets read aloud their creations, and everyone seemed to really enjoy it. Afterwards, we had pizza and a pop-up lesson from Miyuki about utilitarian vs partnership approaches to land and resources.

We finished our day with a daily visit to Kalgen's Dis & Dat convenience store and bought some lottery tickets. Nikiforos had a big win that made our day.

Rasmus Gjedssø Bertelsen together with the Greenlandic politician Aleqa Hammond who was prime minister from 2013 to 2014. They met in Iqaluktuuttiaq (Cambridge Bay), Nunavut, Canada. Photo: Karine Nigar Aarskog

International Relations and Science Diplomacy

Karine Nigar Aarskog

This news piece was originally published on September 22nd, 2025 on uit.no.

How can science be used as a tool in foreign policy and security issues? Professor Rasmus Gjedssø Bertelsen has extensive experience in science diplomacy and addressed the question during the course Arctic Future Pathfinders.

Rasmus Gjedssø Bertelsen is a professor of Northern Studies at UiT The Arctic University of Norway and has a comprehensive background in European science diplomacy. He recently taught at the student course Arctic Future Pathfinders in Iqaluktuuttiaq (Cambridge Bay), Nunavut, Canada.

"Political science is highly conceptual and abstract. It's not necessarily about measuring something more precisely, but about developing concepts to structure conversations and understanding," says Bertelsen.

Science Diplomacy as a Bridge Builder

During a lecture, Bertelsen introduced the concept of "science diplomacy" and emphasized how it can connect abstract ideas with practical political considerations.

"Science diplomacy is about using scientific relationships for foreign policy and security purposes," he explains.

He highlighted examples such as the Arctic Council member states' 2017 agreement to enhance international Arctic scientific cooperation. Bertelsen also stressed the critical role of science and technology in international relations.

Rasmus Gjedssø Bertelsen is professor at UiT and participated recently at the student course Arctic Future Pathfinders. Photo: Karine Nigar Aarskog

"Relative power is about population, economic development, and science and technology. When the rest of the world becomes wealthier and more technologically advanced, the balance of power shifts dramatically," says Bertelsen.

Academics as bridge builders

He also pointed to challenges related to dual-use technology, where science can be applied for both civilian and military purposes, as well as concerns about blending intelligence activities with academic research.

"These are practical problems that require practical solutions," he says.

However, he warns against what he calls "moral panic" surrounding academic exchange with countries like China and Russia.

"We do research and collaborate based on our interests, and we must be careful not to turn academic collaboration into a reward for good behavior," he emphasizes.

Bertelsen has experience with platforms such as the China-Nordic Arctic Research Center and has participated in high-level meetings in Russia.

"When diplomats refuse to talk to each other, academics can often serve as bridge builders," he says, pointing to examples of how such meetings have fostered dialogue between nations.

"Science and technology are not just tools for development but also for understanding and collaboration across borders," he adds.

Collaboration with Canada and Nunavut

During the lecture, Professor David Hik, Chief Scientist and Vice President for Research at Polar Knowledge Canada, also participated. He explained that the research institution, which is celebrating it's 10th anniversary, plays a key role in advancing research and knowledge about the Arctic.

Arctic Future Pathfinders is an interdisciplinary course about the Arctic. A part of it was held in Iqaluktuuttiaq/Cambridge Bay, Nunavut, Canada. Photo: Karine Nigar Aarskog

David Hik (right) is Vice President for Research at Polar Knowledge Canada in Iqaluktuuttiaq. He told the students how the researchers at the station work. Photo: Karine Nigar Aarskog

"We are responsible for advancing knowledge about the Canadian North, but also for building partnerships with Indigenous leadership and local communities. Science diplomacy is about how we negotiate relationships with each other and with other communities," says Hik.

Hik noted that Iqaluktuuttiaq has become a hub for Arctic research.

"The government decided that this was the best place to have Canada's northern research organization, and we are growing into that role," says Hik.

Collaboration with Indigenous Communities and Future Research

Hik emphasized the importance of including Indigenous knowledge in research.

"Indigenous knowledge must not just be included in parallel but must form the foundation of the work we do in the North," he says.

He described this as an opportunity to build capacity in reverse and create more sustainable solutions for the future.

"It's a long way from Brussels to Cambridge Bay, but we need to focus more on what's happening here in the North. The future must be shaped by those who live here, not by external actors," says Hik, before concluding:

"Science diplomacy is about creating conditions that strengthen our ability to address global challenges. But we must ensure that science is used to strengthen common interests, not undermine them."

The Nunavut Arctic College in Iqaluktuuttiaq/Cambridge Bay. Photo: Andreas Altenburger

In Iqaluktuuttiaq/ Cambridge Bay, 06.09.2025

Laura-Kristin Scholtz

Very weak Northern Lights were documented by the campers at the start of the new day (around 00:00), mainly as a green shimmer behind clouds in pictures taken with cameras. Later, the polar-bear watchers were not able to see any Northern Lights. At about 04:00, the night shift encountered a rabbit and a fox – which behaved in a non-strange way. George, the polar-bear protector, was not at the camp to evaluate the situation. The morning watch at about 07:00 reported strong winds - George's tent had almost blown away, and another tent had to be secured as it was partly off its frame. The campers were ordered to take down George's tent and take everything into the cabin. They also received help from Adrian. The weather station at Iqaluktuuttiaq/Cambridge Bay measured winds from ESE at 33 km/h, with gusts of 44 km/h at 08:00 local time. The temperature was 4°C, the relative humidity 95%, and the conditions were mostly cloudy. The minimum temperature overnight was 3°C at 01:00, and the conditions were cloudy to mostly cloudy.

The morning programme started with a panel discussion during breakfast. There were eggs, bacon, and the usual food for breakfast. The coffee-making team was doing a great job. For the panel discussion, which was led by Rasmus, David Hik, the Chief Scientist and Vice-President of Polar Knowledge Canada (POLAR), which operates the Canadian High Arctic Research Station (CHARS), Deborah Clifford, the leader of the Arctic College in Cambridge Bay since September 2025, Navalik Helen Tologanak, the Inuit elder who has been helping us with the organisation and a journalist at Nunavut News North, and Adrian Schimnowski, our local organiser, were invited onto the stage. Jørgen Berge, the

Students and educators listening to the panel discussion while eating their breakfast. Jørgen Berge, the Pro-Rector for Research of UiT The Arctic University of Norway and former Dean of the BFE Faculty, joined on Teams.
Photo: Laura-Kristin Scholtz

Models of kayaks in the collection of the Kitikmeot Heritage Society Centre.
Photo: Andreas Altenburger

Pro-Rector for Research of UiT The Arctic University of Norway, and former Dean of the BFE Faculty, joined on Teams. The central theme of the discussion was the huge amount of gratitude towards the organising team for setting up this new course itinerary for Leg 2 rather than cancelling the course.

After the panel discussion, from about 10:30, the students had free time and the opportunity to go to the Kitikmeot Heritage Society in groups. Some students also checked out souvenirs made by local artists presented at CHARS. Others conducted their research assistant duties during this break. The sun was shining; however, the wind continued to blow strongly (SE 45 km/h, gusts 55 km/h; 6°C at 11:00).

Lunch started at 12:30 with mushroom soup, sandwiches and pasta salad. Churros for dessert. Towards the end of lunch, Ekaterina presented the museum of the Skolt Sámi in Neiden, Finnmark, and their heritage.

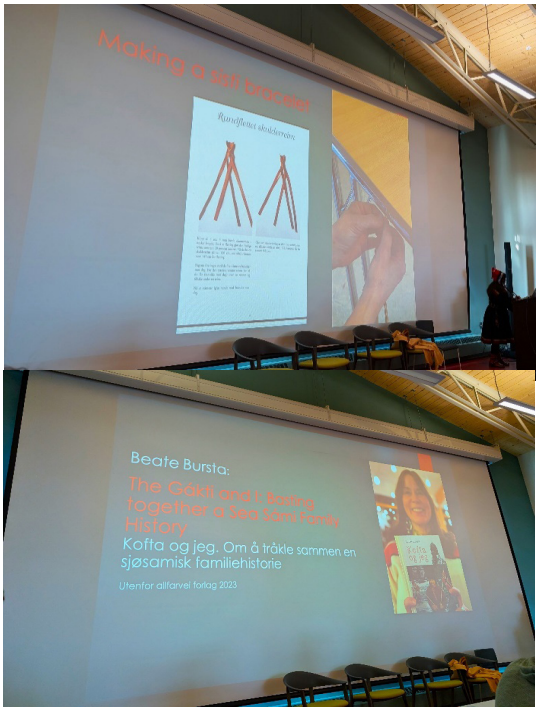
Afterwards, from 13:30, Beate Bursta, wearing the traditional Sámi clothing called kofta in Norwegian (or gákti in Sámi), conducted a workshop on Sámi handicrafts. The students and educators each got to make a sisti bracelet. This is a type of round-braided band with four strings, made from reindeer leather. She also presented her book 'Kofta og jeg' and read a part translated into English.At 17:00, a plenum discussion with Navalik, Adrian, Sammy, Malou and Miyuki began, in which questions from the Question Box were answered. This discussion was led by Ana Luisa. The topics ranged from issues with the sewage system and reasons for poverty to the Inuit's views on homosexuality.

Dinner at 18:00 was gluten-free. The students were happy about getting salad and vegetables (broccoli, carrots and cauliflower). There was also meat and fish – and chocolate cake as dessert! Navalik, George and his wife joined for dinner. Navalik, George, Sammy and Adrian received Sámi gifts. Some of these were handmade by Jan-Erik's wife (the Sámi knowledge holder of Leg 1).

After dinner, the schedule for the upcoming day was discussed during the evening meeting led by Andreas. The information was especially important, as it would be the day we had to leave Cambridge Bay. After a long and unsolvable discussion about who would sleep in which apartment at CHARS that night - since the camp had been closed and taken down due to forecast rain - the film *Sumé - The Sound of a Revolution*, about a Greenlandic rock band that had a strong influence on establishing Greenland's Home Rule Government, was screened.

Light rain started at 19:00 and continued until the end of the day. The maximum temperature of the day was 8°C. Good night, and thank you for your attention!

Ana Luisa (furthest left) leading the plenum discussion with Sammy, Adrian, Malou and Navalik (from left to right). Photo: Laura-Kristin Scholtz



Beate Bursta wearing a *gákti* - the traditional Sámi clothing - (left), explaining how to make a *sisti* bracelet (top right), and reading from her book 'Kofta og jeg'/'Gákti and I' (bottom right). Photos: Laura-Kristin Scholtz

Margo Neglak (left) and Navalik Tologanak told the students about their childhood.
Photo: Karine Nigar Aarskog

From Loss to Hope in the Shadow of Residential Schools

Karine Nigar Aarskog

This news piece was originally published on September 15th, 2025 on uit.no.

Inuk Elder Navalik Tologanak is one of the survivors of Canada's residential schools legacy. During their visit to Iqaluktuuttiaq (Cambridge Bay), students had the opportunity to hear her story.

Navalik Tologanak sits on a chair in the auditorium of Nunavut Arctic College. Beside her is school mate Margo Neglak, who is now an instructor at Nunavut Arctic College. Both are Elder knowledge keepers in Iqaluktuuttiaq and hold significant roles in the local community. They are here to share their stories about residential schools with students in the Arctic Future Pathfinders course.

Tologanak begins by explaining the meaning of her name.

"My name is Navalik. I also have an English name, Helen, but I prefer Navalik because I am named after my grandfather," she says.

She recounts how her grandfather, Navalik, drowned at Char Lake in August 1955 while her mother was pregnant.

"In Inuit tradition, we often name our children after family members or special people in the community. This way, their name and spirit live on," Tologanak explains.

"Many times, those named after their ancestors take on their personality traits. My grandfather was short, and so am I," she says with a smile.

Taken Away

Tologanak's story takes a darker turn as she begins to talk about the government-supported residential schools, which aimed

Indigenous children in a Federal Hostel at Port Harrison (Inukjuak), Quebec.
Photo: Henry Joseph Woodside / Library and Archives Canada / PA-123707

Navalik Tologanak holding a tag from PWA Air Express sending her to the Anglican hostel in Inuvik in 1962. Photo: Private

to assimilate Indigenous peoples in Canada and provide them with education. The residential schools were established in the late 1800s, with the last one closing as recently as 1996.

"I was taken away from my family when I was four years old. The Canadian government took us, Indigenous children from across the country, and sent us to schools far away to erase our culture and make us more like them," she says.

She describes how the month of September was filled with fear in small Inuit communities.

"The planes came every September to take the children. When you heard the plane, you knew what was going to happen. Some children hid, but parents were threatened if the children didn't board. Afterward, the villages were empty of children, and all you could hear were mothers and grandmothers crying," she recounts.

Margo Neglak today teaches about residential schools at Nunavut Arctic College, and also works as emotional support for the students. Photo: Karine Nigar Aarskog

"We Lost So Much"

Navalik Tologanak shares how, as a child, she returned home to siblings who no longer recognized her.

"When I came home, my younger siblings asked, 'Mom, who is that?' They didn't recognize me. I had been gone so long."

Her time at the residential schools left deep scars on Tologanak and her generation. Across Inuit communities in Canada, there are significant issues with alcoholism, substance abuse, and high suicide rates today.

"We lost the ability to parent. We never learned how to cook, sew, or take care of ourselves. We were stripped of our language and culture," says Margo Neglak.

"We Must Never Forget"

Tologanak emphasizes the importance of remembering the history of residential schools.

"We must never forget what happened. Many of the children who were sent to these schools never came home. They lie in unmarked graves across Canada," she says. She mentions the national observance of Orange Shirt Day, which honors the children who never returned home.

"When I see an orange sunset, I think of those children," says Tologanak.

Proud to be an Inuinnak

Despite the pain, Navalik Tologanak is optimistic about the future. She speaks about how the community is now working to revitalize their language, traditions, and culture.

"We have healing programs, we are learning to sew again, and we are teaching our children our language. We will never let this happen again," she says firmly.

She also highlights how today's youth have more opportunities than her generation.

"We now have two schools here in Cambridge Bay, and our children no longer need to be sent away for education. We also have Nunavut Arctic College, where young people can study everything from social work to crafts."

Margo Neglak adds that she also learned a lot at the residential school and that her time there laid the foundation for pursuing further education and having a strong work ethic today.

Navalik Tologanak concludes with a powerful declaration of identity and pride:

"I am proud to be an Inuk. I hope that our children and grandchildren will continue to carry our culture and traditions forward. We have a beautiful culture, and we must never lose it."

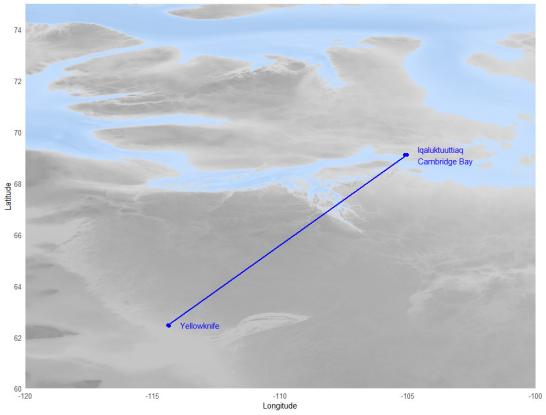
Entering the plane at Iqaluktuuttiaq/Cambridge Bay airport. Photo: Andreas Altenburger

Transfer to Somb'a K'e/ Yellowknife, 7.09.2025

Sanna Saur Heiland, Thea Grunwald

Today was our last morning in Cambridge Bay/Iqaluktuuttiaq. We got breakfast consisting of potatoes and a breakfast burrito, delivered to the CHARS apartments. After finishing breakfast, we quickly packed up all our stuff and tidied the place. As on our arrival in Cambridge Bay, we were picked up by the yellow school bus and driven to the airport.

The flight from Cambridge Bay to Somb'a K'e/Yellowknife[2] was beautiful. The sky was clear, and we had a great view of the landscape.



Route from Iqaluktuuttiaq to Somb'a K'e/ Yellowknife on September 7th. Map: R

After landing in Somb'a K'e/Yellowknife, we were driven to the Quality Inn Hotel and Suites by taxis. As Somb'a K'e/Yellowknife only has around five taxis, transporting everyone from the airport to the hotel took

2 Somb'a K'e means "where the money is" and is the most commonly used Dene/ T'atsaot'ine term for the city of Yellowknife. See more: Wohlberg. M. (2016) We Are T'satsąot'inę: Renaming Yellowknife. Edge, Yellowknife. Available at: https://edgenorth.ca/article/we-are-t-satsaot-ine-renaming-yellow (accessed 28.01.2026)

Cityscape of Somb'a K'e/Yellowknife. Photo: Andreas Altenburger

quite some time. We settled into our rooms and went out to look at the town and find some food. We walked around Old Town, exploring the charming art galleries and walking along the waterfront. Not many restaurants were open, but we ended up finding a space on the terrace of the 'Flame Craft' Grill. With a nice cold beer and some nachos, we enjoyed the beautiful view.

We headed back to the hotel to meet the rest for dinner, but not without making a quick detour to the little island. When we arrived back at the hotel at around 6 pm, a small group of students were waiting with pizza. We walked to the park and had a pizza picnic in the evening sun.

While enjoying dinner, we had a friendly visitor: a fox strolling through the park. He did not seem to be scared of humans, but he also did not approach us for food.

On the way back to the hotel, we talked to a couple of locals. One of them remembered having driven us in their taxi earlier. The girl who was working at a petrol station told us she used to feed foxes in Somb'a K'e/Yellowknife all the time, and only stopped when she was told that someone could report her and she would have to pay a heavy fine for feeding wildlife.

We went to bed early because tomorrow will be another travel day. For half of us the day will start at 3 am, for the others at 5 am.

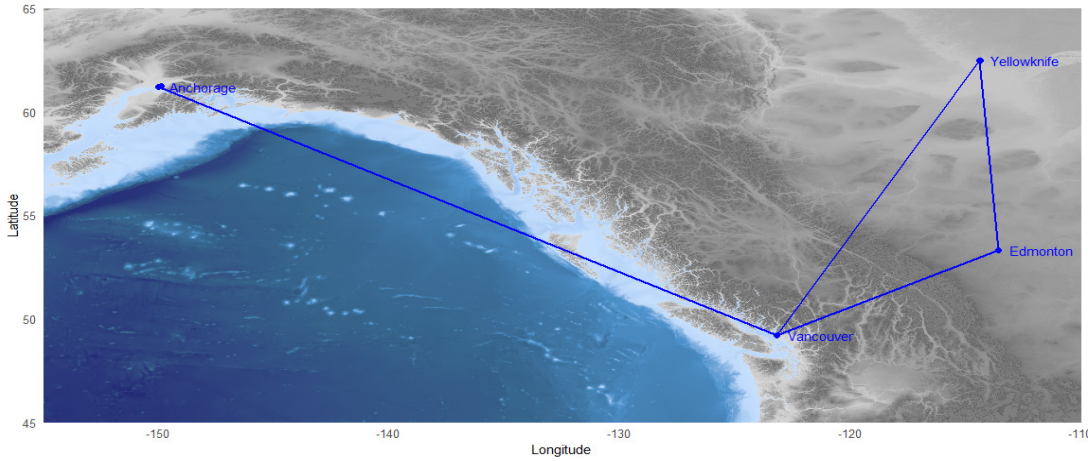
Students waiting for the transfer to the hotel at Anchorage airport. Photo: Andreas Altenburger

Transfer to Anchorage, 08.09.2025

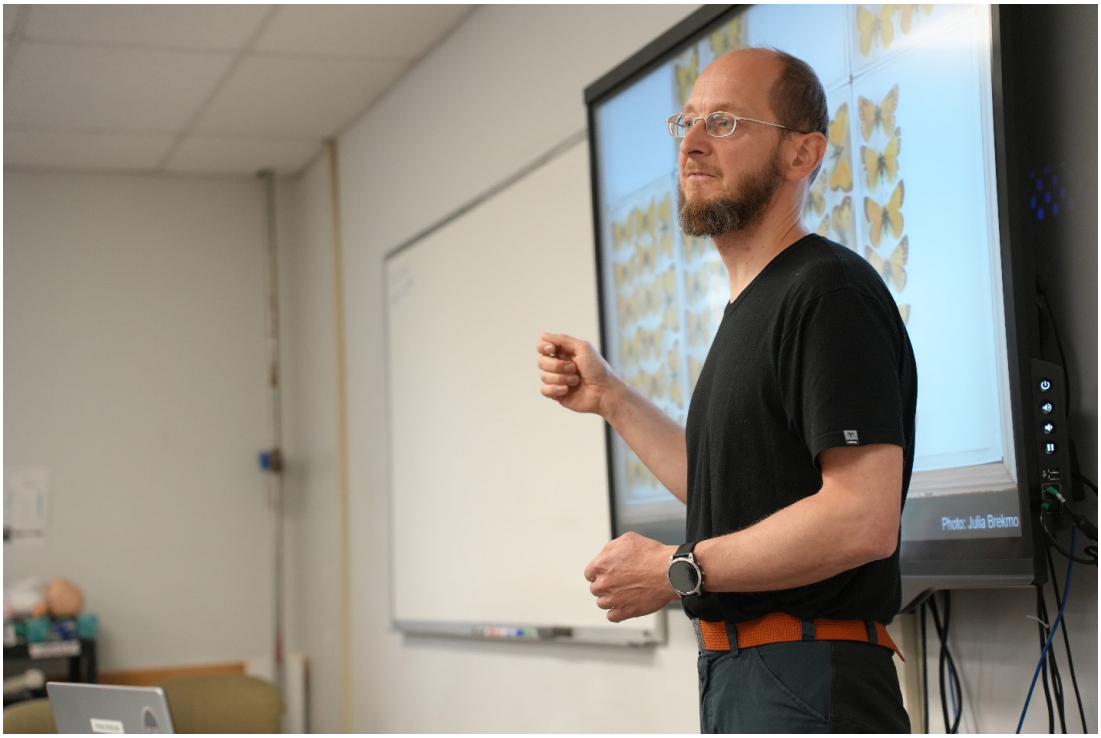
Beytulah Eminefendi, Shengrui Wang

We are writing this report two months later. On that day, we prepared for our next flight, from Somb'a K'e/Yellowknife to Anchorage. We were split into two groups: the first group had a direct flight to Vancouver at 5 am, and the second group had a transfer via Edmonton to Vancouver and departed at 7 am. The first group had a long wait in Vancouver, but they spent their time exploring and shopping, while the second group arrived with about one hour left before departure. Some of the students were excited about passing through the US checkpoint, but luckily no one encountered any issues. We all had the same flight to Anchorage. During the flight, we had beautiful views of mountains, all covered with snow.

We arrived in Anchorage around 4 pm and waited for transport. We arrived at the hotel and shared rooms for one night because there were not enough rooms for everyone, so most rooms had three people. This was fixed the next day. After arriving, we rested a bit and then went to explore the hotel's surroundings. Some went to the closest Mexican restaurant for dinner, and others had ramen in the city centre. After a long day of travel, everyone was exhausted but also excited for the lectures we were going to have at the University of Anchorage.



Route from Somb'a K'e/Yellowknife to Anchorage on September 8th. Map: R



Lecture by Andreas Altenburger on animal taxonomy. Photo: Karine Nigar Aarskog

In Anchorage, 09.09.2025

Sunniva Nilssen Aarbø, Gunn-Marit Lyngroth Sævik

The day started with breakfast at the hotel. However, the hotel had not prepared enough food for all the students and educators, so several people only received toasted white bread without any toppings. The hotel has been given feedback about this and was kindly asked to prepare more food for tomorrow's breakfast.

The whole group drove to the University of Alaska Anchorage, where the programme for the day unfolded. The morning continued with a lecture by Frederic on 'Arctic pelagic ecosystems'. We learnt that the Arctic ecosystem is vulnerable to climate change due to the albedo feedback loop, where melting sea ice exposes darker ocean waters, which absorb more sunlight instead of reflecting it back. This extra heat accelerates further ice melt, creating a warming cycle in the Arctic. We were also introduced to endemic Arctic species and their characteristics.

The following lecture by Andreas was about taxonomy and how he works with identifying and describing species. He shared how, during his work at a research station in Greenland, he brought his wife and children along and collaborated closely with the local community. This is a good example of how to use local labour and get input from locals who have valuable knowledge of the area.

After the lunch break, we had a session led by Frederic, Cornel, Rasmus and Monika, who each challenged us to reflect on topics within their areas of expertise. Rasmus asked us to consider the United States as a superpower, its natural resources, and how it differs from our homelands. Cornel invited us to reflect on the role of arts and culture in the places we have visited, while Frederic

Meeting with UAA students and faculty at the business faculty. Photo: Karine Nigar Aarskog

posed questions about the connection between society and the environment. The sessions were wrapped up with Monika's question on how the term 'time' could be defined in different ways and whether the Arctic still has time.

Henry Huntington was our guest lecturer today. He is the Arctic Science Director at Ocean Conservancy and also works as an independent researcher. He focuses on issues such as plastic pollution of the ocean and overfishing.

At the end of the day, we had a welcome event with the Dean of the University of Alaska Anchorage. This was followed by dinner and socialising with some of the UAA staff and students from the business faculty. It was clear we were at the business faculty, as the hall had long screens showing stock prices from major companies. Some people in our group enjoy meeting new people, as socialising can lead to new and exciting connections. One of these connections led to a meeting being arranged with a UAA master's student. The meeting will take place during lunch on Friday. He is working on replacing plastic in fishing gear with biodegradable materials.

Elders and members of Aleut International Association (AIA) who presented their work and lives for the students, from left to right: Sally Swetzof, Board Member Atka, Alaska, USA; Nadine Kochuten Delegation to CAFF, Salmon Peoples of the Arctic Steering Committee; Liza Mack, Board Member, King Cove, Alaska, USA; Okalena Patricia Lekanoff Gregory, Board Vice President, Unalaska, Alaska, USA; Jessica Veldstra, Executive Director, Anchorage, Alaska, USA. Photo: Karine Nigar Aarskog

In Anchorage, 10.09.2025

Sara Cordesco, Judith Seiler

07:30 Breakfast at the Ramada Hotel
08:00 Leaving for UAA to attend lectures on campus
08:40 Lena's presentation: Arctic in Fiction

Lena's presentation explored the 'imagined' Arctic in fiction, with a focus on speculative fiction that builds on real-life issues and combines them with imagination. In the case of the Arctic, this fiction tends to be dystopian and deals with issues of climate change, race, class and gender oppression, and colonialism. The Arctic often serves as a metaphor for the cruel indifference of nature or the hubris of science and exploration.

10:45 Pop-up session
Nathaniel held a pop-up session about orcas and their increased dominance of the Arctic Sea.
11:00 Heading out to City Hall to meet the Mayor
12:00–13:00 Lunch and meeting with Mayor Suzanne LaFrance and the Deputy Chief of Staff

The Mayor explained how Anchorage plays an important role as a gateway to the Arctic in Alaska and further described various challenges the city and region are facing. These include housing, homelessness, the need for young people to come and stay, dealing with the effects of the climate conditions and, overall, increasing the quality of life for all people. She particularly emphasised how Anchorage is in dire need of young people staying or moving to Anchorage to help the city grow economically. LaFrance mentioned projects to support people experiencing homelessness and substance abuse, such as year-round accessible cold shelters and micro-units that serve as recovery residences for people who want to get sober.

13:30–14:30 Visit to the law-enforcement museum

In two groups, we visited a small museum about law enforcement in Alaska, displaying various objects from uniforms to communication devices to guns and police gear. It contained no critical observations or

The Mayor of Anchorage, Suzanne LaFrance talking to the students.
Photo: Karine Nigar Aarskog

Elder George telling about his life as a whaler in Barrow. Photo: Karine Nigar Aarskog

reflections on the US police force. Students expressed discomfort with this.

15:15–16:30 Aleut International Association

Back at the University, we were visited by members of the Indigenous organisation Aleut International Association, which represents the Indigenous Peoples of Aleut descent in the United States and the Russian Federation and is a Permanent Participant of the Arctic Council. The Aleut are an Indigenous people of the Aleutian Islands and western Alaska. Some of the Aleut live in Russia on Bering Island; maintaining contact between the US and Russian Aleut poses a challenge. The association aims to connect the local level and their issues with the international level, for example with a project that supports remote Indigenous communities in waste management. They spoke about the importance of researchers talking with, and taking into consideration, the interests and knowledge of local Indigenous communities, among other things when dealing with the impact of climate change. The latter threatens the Indigenous way of life because of environmental shifts and damage.

Unangam Tunuu is spoken mainly by elders who use it as their first language. The association provides language courses to protect and keep the different Indigenous languages alive, or revitalise them.

17:00–18:25 Meeting with the Elders, Kivaqq and George, as well as their daughter Dean and son Philip, from the northern shore of Alaska.

Kivaqq's family came to Alaska through their profession as whalers. To this day, whaling is an important part of the local culture of Utqiaġvik/Barrow. It involves not only the whalers themselves but also the rest of the community, for example to engage in prayer or to provide the whalers with food. The number of whales that can legally be hunted each season is limited by the government; currently, it is around 25. George, Kivaqq's husband, was raised in a region with a lot of coal mining. Through Kivaqq, he was introduced to whaling. Kivaqq's passion is sewing.

Their stories described life in the Arctic as one of community and adapting to the harsh conditions of the region. It is possible for a polar bear to charge at you while you're having a cigarette outside. Philip described how finding Jesus had the most significant positive impact on his life. George told us that he never wants to leave Alaska. They did move away from Barrow to Anchorage because of the better infrastructure and access to health care.

18:50 Leaving UAA to head back to the hotel.

Mayor in Anchorage, Suzanne LaFrance. Photo: Karine Nigar Aarskog

A Historic Partnership and Forward-Looking Collaboration

Karine Nigar Aarskog

This news piece was originally published on September 19th, 2025 on uit.no

The partnership between Anchorage and Romssa/Tromsø is an example of how cities can play a vital role in fostering cooperation across borders despite long distances.

The relationship between the two cities has been characterized by cultural and academic exchanges, but it has also faced challenges that now provide opportunities for revitalization and innovation. The long history of this city partnership and changes it has undergone throughout time offers a chance to reflect on how city diplomacy works, what challenges it faces and how it can contribute to solving global and regional issues.

Students from the Arctic Future Pathfinders course, currently in Anchorage, the fourth largest US city by its surface area, were introduced to the system of local government in Anchorage, city's ongoing projects and challenges during a visit to City Hall, where they received a briefing from Mayor Suzanne LaFrance.

Cultural ties

"Our sister city relationship with Romssa/Tromsø was established over 50 years ago, and the relationship has existed longer than the municipality of Anchorage itself," says LaFrance.

The relationship with Romssa/Tromsø is one of Anchorage's oldest and most significant sister city partnerships. The strong Norwegian community in Anchorage, including the organization 'Sons of Norway,'

has played a crucial role in maintaining the ties, explains Sister Cities commissioner Tetyana Robbins.

"Sons of Norway is a fantastic organization, and they have their own building where they often host events," says Robbins.

Additionally, previous commissioners for the Anchorage–Romssa/Tromsø partnership have often had Norwegian ancestry or even extended family residing in both cities, further strengthening the connection.

A Platform for Collaboration

City diplomacy refers to engagement of cities and local governments at the international arena. This can vary in form and may include everything from cultural exchanges to network-based collaboration on global challenges like climate change, gender equality and migration.

"Cities are not just the cause of global problems; they are also part of the solution," says Associate Professor Ekaterina Mikhailova from UiT.

Lisa Nelson (left), former Sister City Commissioner for Romssa/Tromsø, together with Sister City Commissioner for Romssa/Tromsø Tetyana Robbins and Associate Professor Ekaterina Mikhailova.
Photo: Karine Nigar Aarskog

Anchorage and Romssa/Tromsø have a unique opportunity to use their partnership to promote shared interests in the Arctic, including sustainability, research, and cultural understanding.

"I am very focused on universities because that is where exchanges always begin," says LaFrance.

The students at Arctic Future Pathfinders in the streets of Anchorage. Photo: Karine Nigar Aarskog

Student exchange programs between UiT and the University of Alaska Anchorage (UAA) are among the initiatives that can help build bridges between the two communities. In 2023, the UiT and the UAA renewed their Memorandum of Understanding agreement to foster even closer connections.

Diplomacy and Arctic Perspectives

In recent years, the collaboration between Anchorage and Romssa/Tromsø has faced challenges. Some of these stem from traditional formats, such as delegation visits and ceremonial exchanges, not always being sufficient.

"This format works best when there are also partnerships at lower levels, such as between universities, schools, and local organizations," says Mikhailova.

A great potential for strengthening sister cities' relations is to combine cultural exchanges with practical hands-on learning from each other on the most pressing issues of common interest.

"A robust city partnership has to have experience transfer as one of its cornerstones", Mikhailova says.

Local level of government differs from the national government in their practical approach to problems they face. This difference has been aptly summed up by the former New York mayor Mike Bloomberg in his famous quite: "while nations talk, cities act".

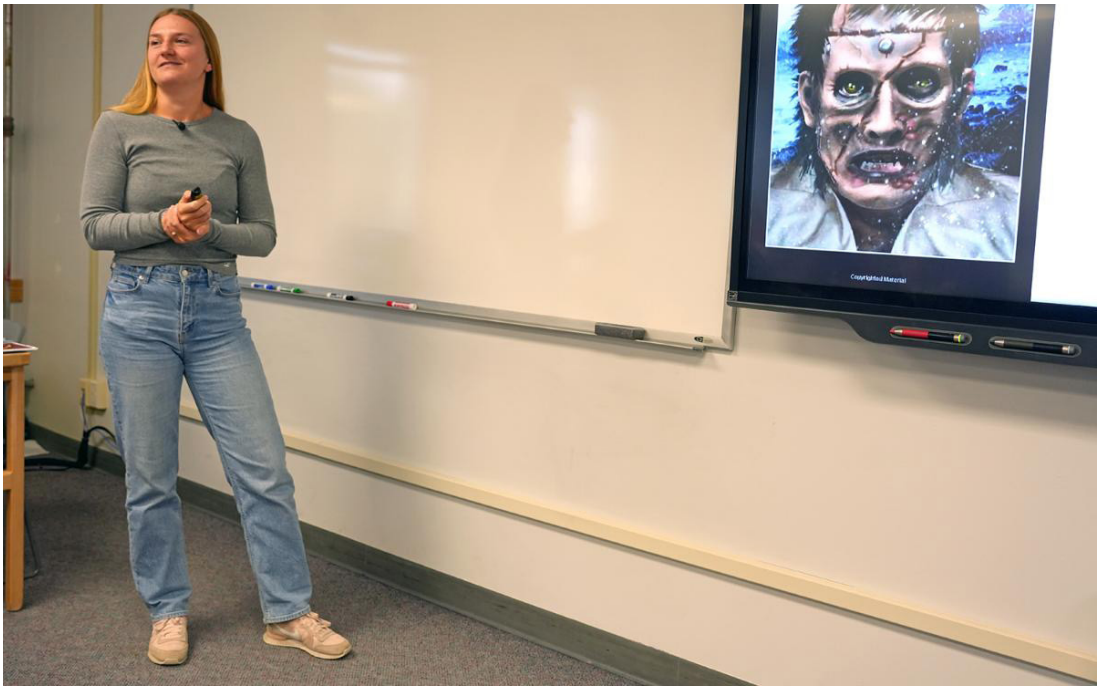
The Future of Anchorage and Romssa/ Tromsø

To revitalize the partnership between Anchorage and Romssa/Tromsø, it is essential to focus on concrete initiatives that can create lasting connections. This includes student exchange programs, joint cultural events, and collaboration on Arctic issues.

The students were warmly welcomed at the City Hall. Photo: Karine Nigar Aarskog

In a broader Arctic context, both Anchorage and Romssa/Tromsø have been part of the Arctic Mayors Forum, an international platform that promotes collaboration between Arctic cities. This city network aims to incorporate local perspectives into Arctic governance and deliver better services to Arctic citizens.

However, the two cities do not need to limit themselves to the Arctic fora. They could leverage their partnership globally when engaging in larger international city networks such as for example United Cities and Local Governments (UCLG), the largest currently existing city network representing 70% of the world's population. UCLG provides a platform for sharing experiences and developing innovative solutions to common challenges.



Lena Leimgruber Haraldsson from Umeå University talked about Mary Shelley's book Frankenstein, often considered the first Arctic novel, as it uses the Arctic as a frame narrative to explore themes of isolation and ambition. Photo: Karine Nigar Aarskog

Imagined Arctic: Exploring Literary Fiction and the Arctic's Symbolic Landscape

Karine Nigar Aarskog

This news piece was originally published on September 11th, 2025 on uit.no.

A recent seminar held in Anchorage delved into the fascinating world of literary fiction and its portrayal of the Arctic.

The session, led by PhD student Lena Leimgruber Haraldsson from Umeå University, explored how the Arctic is imagined in literature, blending themes of climate change, colonialism, and speculative futures. The event, attended by an engaged audience from the student course Arctic Future Pathfinders, sparked lively discussions about the role of fiction in understanding the Arctic's cultural and environmental complexities.

Acknowledging Indigenous Lands

Leimgruber began by acknowledging the Sami people's territory, where Umeå University is located.

"Before I start, I want to acknowledge that Umeå University is situated on the land of the Sami people," Leimgruber said.

This set the tone for a session that emphasized the importance of recognizing Indigenous voices in Arctic narratives.

Arctic Literature: Beyond Ice and Snow

The seminar highlighted the Arctic as more than just a frozen, desolate landscape.

"The Arctic has cultural and symbolic meanings," Leimgruber explained.

"Literary fiction about the Arctic can provide environmental thought, room for action, and a lens to examine power structures and colonial histories."

Lena Leimgruber Haraldsson at the library for the course Arctic Future Pathfinders.
Photo: Karine Nigar Aarskog

Speculative Fiction and the "Imagined Arctic"

The session delved into speculative fiction, a genre that includes dystopian, climate, and historical narratives.

"Speculative fiction is the 'what-if' genre," Leimgruber noted.

"It allows us to emotionally process planetary uncertainty and imagine complex futures."

The audience discussed the concept of the "imagined Arctic," with one participant suggesting, that it is about how people think about the Arctic rather than experiencing it.

Leimgruber elaborated, "Many who write about the Arctic are outsiders, imagining it based on their own perceptions."

Students discussing during the session.
Photo: Karine Nigar Aarskog

The Role of Fiction in Understanding the Arctic

Participants reflected on why literary fiction matters. One of the suggestions was that it creates empathy and allows us to address difficult issues with some distance. Another participant added, "Reading literature helps us learn about life through the stories of others."

The seminar concluded with a discussion on the Alaska Literary Series and its contributions to Arctic literature.

"The Arctic is more than ice," Leimgruber emphasized, before concluding:

"Through fiction, we can challenge dominant narratives and imagine alternative futures."

Key Works in Arctic Literary Fiction

—Mary Shelley's *Frankenstein*: Often considered the first Arctic novel, it uses the Arctic as a frame narrative to explore themes of isolation and ambition.

—Dan Simmons' *The Terror*: A blend of history and Gothic horror, this novel reimagines the Franklin expedition with a supernatural twist. The Arctic itself becomes a character.

—Michelle Min Sterling's *Camp Zero*: A dystopian tale set in Northern Canada, it critiques eco-colonialism and gendered exploitation.

—Tanya Tagaq's *Split Tooth*: Based in part of the writer's own personal journals, the book tells the story of a young Inuk woman growing up in the Canadian Arctic in the 1970s.

Students and elders discussing during a break in the lectures. Photo: Karine Nigar Aarskog

In Anchorage, 11.09.2025

Jack Colman

06:00–08:00 Breakfast at the Ramada Hotel
08:00 Leaving the hotel and heading to UAA campus. Unhappy to learn that one of the vans had been dented during the night.

08:30 Evelyna's pop-up session during the educator meeting. Discussed her master's thesis about the opinions and relationships surrounding whaling and whalers in northern Norway.

08:45 Ekaterina gives presentation/debriefing of yesterday's trip to City Hall and the law-enforcement museum. The presentation included group discussions and reflections on the trips, as well as discussions on bordering in the circumpolar North. Additionally, the presentation included discussions on city diplomacy and the role of the state and the (non)necessity of borders.

10:15 Debriefing on a hotel safety issue. Decision made to find a different hotel, and emergency procedures outlined. Encouraged to increase security within the group by travelling in groups of at least three, as well as limiting alcohol consumption, and implementing a zero-tolerance policy for weed ☹.

11:00 Sophia gives a presentation on chemical pollutants in the Arctic, with a focus on PFAS. The presentation mentioned aspects of Indigenous use of animals that have been affected by bioaccumulation and biomagnification, which resulted in an interesting class discussion. The conclusion was that the benefits of wild game still seem to outweigh the costs, but this remains up for debate.

11:45 Pop-up lesson on the physics of the Northern Lights by Laura.

12:00 Lunch and walk to the library.

13:00 Arrive at the Consortium Library. Panel introductions included an overview of

Testing the truck balance at the waste treating facility in Anchorage. Photo: Andreas Altenburger

the functions of the library as well as their partner institutions. Important aspects of Indigenous outreach and involvement. All collections are publicly available but must have something to do with Alaska. There is easy online access to digital materials. The discussion with the panel revolved mostly around the use of AI in academia in general, with some emphasis on how the library and UiT incorporate it in their respective work. After the discussion, we had a brief tour of the library and its facilities, which included an impressive display of historical maps and documents.

15:00 Leave the library and head for the waste-management plant.

15:30 Arrival at the waste-management station. Began with a presentation on solid-waste services, which is a user-pay waste-management service that is not tax-funded. Municipal solid-waste work is one of the most dangerous jobs in the US; focus on safety and sustainability (allegedly). Four facilities, including the central transfer station, where our tour took place. An average of 300,000 tons of waste per year in the landfill, which is nearly fully lined. 5-million-gallon leachate ponds, with near-constant monitoring and maintenance. Landfill gases are used, in part, to power the nearby military base. Only a secondary market for #1 and #2 plastic bottles and jugs. After the presentation, we were given a tour of some of the facilities, which included the organics-management area.

17:30 Drive to the old hotel, pack up and head to the new hotel.

18:30 Dinner

20:00 Debriefing and plan for the following days.

Lecture given by Daniel outdoors on marine and coastal governance. Photo: Andreas Altenburger

In Anchorage, 12.09.2025

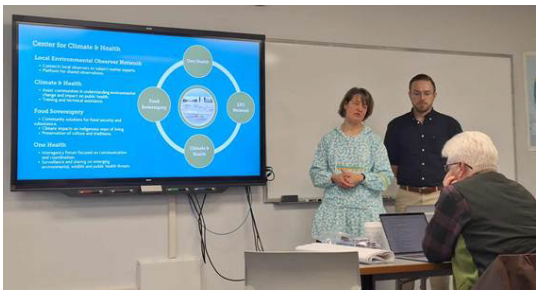
Sophia Anna Schreckenbach

06:30–07:30 Breakfast at the Hilton, followed by departure to the University of Alaska Anchorage (UAA).
Today is the final day at the UAA campus, as well as the final day of formal lectures.
08:00 Student feedback using Mentimeter.com.
08:20 Andreas presents about the FAIR principles for data storage and sharing (the acronym stands for findability, accessibility, interoperability and reusability of data) and also touches on types of licensing for data and published work.

08:40 Cornel presents on information literacy, including its definitions and importance. Key takeaways include that information literacy is an umbrella term for several different kinds of literacy, and that exposure to information alone is not enough to develop information literacy. Fundamentally, information literacy is synonymous with knowing how to learn. There is some discussion on the best places to find reliable information and sources for various topics, and also some debate on whether artificial intelligence (AI) can be useful or harmful for this kind of research (no real conclusion was reached, but the importance of being critical and, yes, literate if one does use such tools is emphasised).

10:30 Student feedback session 2 on Mentimeter.com.

10:45 Monika follows up her previous presentation on time with another lecture on time, future and utopia. A key point when imagining a utopia is to keep in mind for whom this scenario is truly utopian, and for whom it is not and/or who is not included in this utopia. This is followed by a group work session where students attempt to envision a utopia for the Arctic. The results



Two members of the Alaska Native Tribal Health Consortium (ANTHC) presenting on the consortium's work.
Photo: Sophia Anna Schreckenbach

are interesting! Some common themes are found across many of the groups, including a reduction of the effects of climate change and pollution, open borders in the Arctic for Inuit and other Indigenous people to travel freely between the current nation-states they inhabit, and some version of independence and/or self-governance for Indigenous peoples in the Arctic. Some groups envision completely different utopias, including one that relies heavily on AI.

12:30–13:30 Lunch. Some students visit the biomaterials laboratory of Professor Phillippe Amstislavski.

13:30 Daniel presents on marine and coastal governance, starting with a group activity wherein students and other educators take on the role of parties wishing to use coastal waters (fishing vessels, fish farms, cargo vessels, military vessels, Indigenous interests, etc.) in order to highlight the complexity and necessity of governance in the ocean. This was then followed by two other games on how power can be interpreted differently and how governmentalities are shaped. He ended the lecture with a session on governance in Nunavut and the territory's unique structure of consensus government that merges Inuit interests and culture with Western approaches.

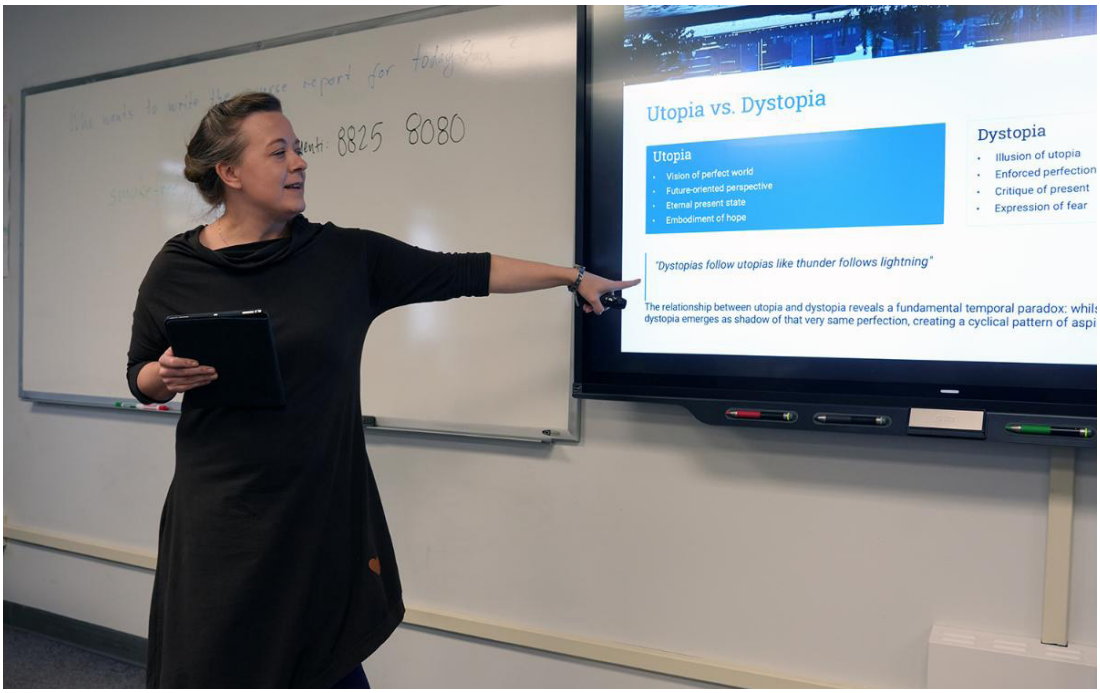
15:00 A visit from the Alaska Native Tribal Health Consortium (ANTHC), which provides healthcare for all enrolled tribal

A scene from the park at the edge of the ANTHC campus. Photo: Sophia Anna Schreckenbach.

members in Alaska (healthcare in the USA being private, typically, unlike in most other wealthy countries) through a tiered system involving local and regional clinics and health centres, as well as the large central complex in Anchorage. They also present on the unmet needs report, which reports on unaddressed or insufficiently addressed factors affecting the health of people living especially in remote, poorly accessible and often poor Indigenous communities. The presentation is followed by a group activity wherein each group discusses one of the unmet needs and links it to similar problems (and potentially solutions) they have encountered in their own or other communities. Many of the AFP participants come from Arctic and/or remote and/or underserved communities, and so there are many links that can be drawn. One group links their unmet need to observations from Iqaluktuuttiaq/Cambridge Bay instead,


Scenes from the Sámi crafting workshop led by Beate. Photos by Sophia Anna Schreckenbach

which leads to some interesting discussion on the challenges of drinking-water delivery and wastewater treatment in that community. The activity ends with a brief walk in a park at the edge of the ANTHC campus and some more presentation of how the campus serves its users and future plans for expansion.
18:00–20:00 Dinner and free time
20:00–20:45 Evening meeting led by Andreas and Sarah. The schedule for the remaining two days is presented, and some of the student concerns and responses from earlier in the day are briefly addressed.
20:45–22:45 Optional Sámi crafting workshop led by Beate. Approximately 10 participants, mainly students, stayed for the workshop proper; a few additional educators and students stayed for the introduction, as Beate presented the options for the workshop and talked a bit about Sámi crafts and her own learning journey with said crafts, but left after. Students chose between wool felt, appliqué/embroidery with mica (which Beate had presented at her first workshop in Iqaluktuuttiaq/Cambridge Bay), or metal and leather bracelets. For at least some of the participants, this workshop was one of the highlights of the course.



Monika Gabriela Bartoszewicz during the lecture about time. Photo: Karine Nigar Aarskog

Utopia or Dystopia: "Time shapes us"

Karine Nigar Aarskog

This news piece was originally published on September 13th, 2025 on uit.no.

In a lecture on the significance of time and the future of society, students were encouraged to reflect on time. How does time influence our lives, and how can we use this understanding to create a better future?

"Time is not just something we measure; it is something that shapes us," says Associate Professor of Societal Security, Monika Gabriela Bartoszewicz.

During a lecture that explored the role of time in society and culture, she introduced students to complex concepts such as the flow of time, its ethics, and how different societies relate to it. Bartoszewicz emphasized how time affects both individuals' and societies' ability to plan and act.

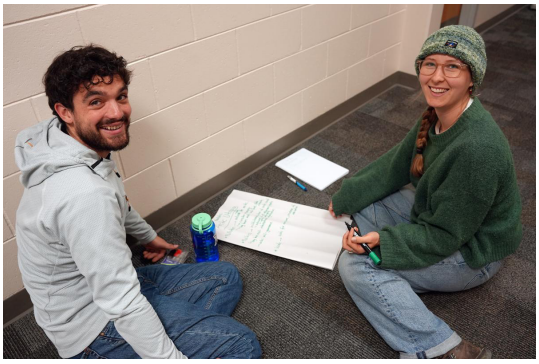
"We must understand that time is not just a linear stream from past to future. Time can be continuous, fragmented, cyclical, or even static. How we perceive time influences how we organize ourselves as a society," says Bartoszewicz.

Arctic Utopia

The students were then challenged to use this understanding to create visions for an "Arctic utopia." The task was to reflect on how the orientation and tempo of time could shape future societies in the Arctic.

"What can we learn from the past, and how can we use this knowledge to build a better future?" Bartoszewicz asks, before continuing:

"The past influences the human present through information contained in sets of traces, while the future influences it through plans and seeds, which, together with the remnants of history, influence the decisions made by humans in the present."



The students Maximilian Vincent Stimmel and Lucia Karoline Mandelkow were imaging the futures of the Arctic.
Photo: Karine Nigar Aarskog

One of the students, Evelina Silokangas, during the workshop about how the future could look like. Photo: Karine Nigar Aarskog

The Ethics of Time and Societal Responsibility

The lecture also addressed how the mastery of time–such as deadlines and planning–is crucial for the functioning of society.

"Time is not just an individual experience. It is a collective agreement that teaches us responsibility, self-restraint, and how to think beyond the present," says Bartoszewicz.

She highlights how different cultures have varying approaches to time, which in turn influences how societies are organized.

"Some societies are strongly future-oriented, while others are more focused on preserving the wisdom of the past. This temporal orientation shapes how we act as individuals and as societies."

Utopias and Dystopias

A central theme of the lecture was the relationship between utopias and dystopias.

"A utopia is never a neutral idea. Your utopia might be someone else's dystopia. That is why it is important to understand that these concepts are closely connected," says Bartoszewicz, adding:

"Time is a force that shapes us, but it is also something we can shape. By understanding the complexity of time, we can navigate toward a better future. Futures aren't just imagined stories–they're shaped by how people imagine and live time in political and social contexts."

Lena Leimgruber Haraldsson writing on the utopia poster for her group.
Photo: Karine Nigar Aarskog

Example of a display of Alaskan Native cultural heritage at the Anchorage Museum.
Photo: Ditte Lilholm

Map of the Alaska Native Heritage Centre in Anchorage.

In Anchorage, 13.09.2025

Ditte Lilholm

Our Saturday began with breakfast from 06:30, and while participants, educators and contributors began to file into the breakfast room, Heikki set up for his PhD pop-up session. He gave his talk from around 07:00, which was well received and continued through to the end of breakfast. From 07:30 onwards, Sarah gave her highly anticipated lecture on permafrost, where we learned basic definitions and knowledge and, amongst other things, were introduced to the concept of pingos. After the lecture, a group of considerable size left for the side-event of visiting the artisan Bobby of Arctic Luxe, a brand creating custom-made traditional parkas and jewellery.

10:15 our guided tour of the Anchorage Museum began, where we began the rounds with a visit to the exhibition "Living Our Cultures, Sharing Our Heritage: The First Peoples Of Alaska" by the Smithsonian Institution; a beautiful showing of more than 600 pieces of Alaskan Native cultural heritage.

We continued further to explore the "Cold War to the Cosmos: Distant Early Warning Systems and the Arctic" exhibition. And, while roaming around the museum, several of us took selfies or group pictures with the famous feather polar bears.

From 14:00, for one and a half hours, we visited the Alaska Native Heritage Centre. Here we were so fortunate to meet a range of artisans showcasing and selling their works – and several of us bought various items here before continuing on our guided tour.

The tour took us around their lake, where we made stops along the way, our guide elaborating at each stop along the way.

After finishing our guided tour, we formed a circle in front of the Heritage Centre around 16:00 and did our course debriefing there.

From 17:30 onwards, the rest of the day's programme was voluntary, with talks from Sammy and Adrian, a poetry circle and a movie screening on offer.

Eagle Lake close to Anchorage. Photo: Andreas Altenburger

In Anchorage, 14.09.2025

Lena Leimgruber Haraldsson, Ingrid Aamodt

The day started early with our visit to Beluga Point. Although our plan to follow the tide did not work out as expected, the setting itself was stunning, offering a chance to take in the scenery and simply spend time together as a group. Before heading off, we had a short stop to fill up petrol and buy snacks at Circle K, which added a light-hearted and practical pause to the day.

Our next stop was the Thunderbird Falls Trail. This hike was easy and accessible, but what made it memorable was the atmosphere: golden autumn tones, the sound of the stream, and the general sense of calm that came from walking through such vibrant nature. The beauty of the surroundings left a strong impression, and it felt like a chance to slow down and simply enjoy the environment.

Thunderbird Falls in Eklutna, Alaska. Photo: Andreas Altenburger

The visit to the Little Lithuanian Museum and Art Gallery was a completely different but equally valuable experience. The museum is familyrun, and we were warmly welcomed and guided around the premises. Their generosity and openness made the visit feel very personal. It was also meaningful to think about the Lithuanian diaspora in the US, and how cultural memory is preserved

Students on the trail returning from Eagle Lake towards the cars. Photo: Andreas Altenburger

and shared across generations. Before leaving, we were offered snacks, and the time spent there added both cultural depth and a sense of hospitality to the day.

In the afternoon, we set out for the long hike to Eagle and Symphony Lakes. The group split into two - one, at a moderate pace, led by Adrian, and a faster group led by Kunuk. The faster group was the only group to reach the lake before we had to turn around, but both hikes offered a rewarding challenge. In order not to sneak up on wildlife like bears and moose, we were encouraged to talk and be loud, and the hike therefore also provided space for good conversations. Everyone was in good spirits, and happy to be outside in nature. One of the groups was also lucky enough to spot two moose by a lake on the way back to the cars. The moose were far away, but they were still the centre of attention for a while as binoculars were passed around so that everyone could get a good look.

The scenery of the hike was breathtaking: Eagle Lake's turquoise water was a highlight, and the surrounding landscapes were almost overwhelming in their beauty. Even though the hike was fairly long, it felt rewarding and deeply worth the effort. The hike was the last arranged activity of the course, and it was a nice way to conclude the eventful past few weeks of the Arctic Future Pathfinders course.

By the evening, people were understandably tired and hungry. Some participants had to leave for flights, while the rest of us gathered for a final group dinner at Bear Paw. What started as a small dinner of around ten people quickly grew into a large gathering of twenty-six. This dinner became an impromptu celebration of our last official evening together, and it was filled with warmth, laughter and a sense of shared accomplishment after a long but fulfilling day.

Moose bull spotted during cycling trip in Anchorage. Photo: Andreas Altenburger

In Anchorage, 15.09.2025

Sanna Saur Heiland, Sara Cordesco

Today was our last day of the course. We woke up at the Hilton Garden Hotel in Anchorage. Some of the course participants had already left the day before or very early this morning, so fewer than usual met for breakfast between 07:30 and 08:30. During breakfast and after breakfast, there were a lot of goodbyes. Our beautiful group is splitting up and spreading across the entire world.

After breakfast, we went back to the Hilton to check out of the hotel. Check-out was at 11:00. A lot of us who were left still had the entire day left in Anchorage before travelling home. We left the luggage in the hotel and went out to explore the city one last time.

Some of us went downtown, where we went for a stroll and visited some souvenir shops. Then we had lunch in a typical American diner and had some pancakes for breakfast. Others went on a boat trip and got a better look at the local wildlife. Andreas rented a bike and went on a beautiful cycling trip of 47 km. On the trip he had beautiful, close interactions with moose. He saw five moose right by the road he was cycling along. Other course participants rented cars and started their road trip around Alaska.
The group leaving Anchorage on the night of the 15th spent the last few hours in the Hilton Garden Hotel, and between work, leisure and dinner, at 21:00 it was time to leave for the airport.

We spent a few hours at Anchorage International Airport waiting for our flight at 23:59, but time went by quickly and we soon found ourselves on the way back to Romssa/Tromsø.

Like us, many left the same day, one day earlier, or will leave in the next few days. The itinerant part of the Arctic Future Pathfinders course is officially over.

Leg 2, course reflection

Sarah Marie Strand

Note: This reflection was written after the conclusion of the Arctic Future Pathfinders programme and draws on the entirety of Leg 2. Sarah Marie Strand was the APECS liaison during Leg 2.

For those of us only joining Leg 2, early August was a period of mixed emotions. The news broke on 9 August (via the official channels of UiT and Statsraad Lehmkuhl) that the Statsraad Lehmkuhl would not be sailing the Northwest Passage. I was visiting a friend in Helsinki when I heard. My initial reaction was to laugh - not because the situation was funny, but because it seemed so absurd. In July, I had been out to dinner with friends in Tromsø, where we had discussed how, if for some reason the Statsraad Lehmkuhl could not sail the Northwest Passage, the only route for the ship to reach its other commitments on the west coast of North America would be through the Panama Canal. The chance of this actually happening had seemed infinitesimally small. And yet, all students and staff associated with the journey found themselves facing exactly this reality in early August. A number of questions followed the change in plans: would participants in Leg 2 still sail, but on an altered route? Or would Leg 2 be cancelled, or reimagined entirely? Despite the enormous logistical effort it entailed, luckily the latter became a reality - it was decided that Leg 2 should be carried out on land rather than at sea.

Naturally, it was incredibly difficult for the core organising and logistics team, still aboard the ship, to develop alternative plans for such a large group at such short notice. Those of us on land anxiously awaited news of what the re-planned journey would look like. Eventually, it was clarified that the revised Leg 2 would be centred around stays in the destinations originally planned as port calls - Iqaluktuuttiaq /Cambridge Bay, Nunavut, Canada, and Anchorage, Alaska, US. Having worked in Alaska in 2014, and having taken an influential PhD course in Iqaluit (the capital city of Nunavut) in 2018, I felt particularly appreciative and excited for the chance to spend more time on land in these places. To reach Iqaluktuuttiaq, everyone joining Leg 2 (who was not on Leg 1) kept their original outbound travel plans, meeting in Edmonton for subsequent group travel by charter flight. I spent the days before the Edmonton meet-up visiting my brother in Boston, and fell into a fitful sleep in the muggy summer heat on the evening of the 27th. I was extremely curious how the trip and group dynamics would unfold, and eager to be back up north. Once the group assembled in Edmonton, it was clear that the absence of the sailing aspect had led to various levels of disappointment amongst participants. Nonetheless, those who signed on to the re-planned Leg 2 arrived with open minds, a willingness to accept a situation demanding extreme flexibility, and little idea of the transformational weeks to come.

We were so warmly welcomed in Iqaluktuuttiaq by our core local partners, Navalik, Sammy and Adrian. For many participants - most of whom came from Nordic countries - Iqaluktuuttiaq offered a window into a completely different expression of the Arctic. The Canadian Arctic and the Nordic Arctic can be considered neighbours in the region as a whole, but their histories, governance structures and day-to-day realities diverge in profound ways. Considering the similarities and differences provided an intellectually and emotionally rich thread during our time

there. Time spent and conversations with Inuit elders and other community members were truly invaluable and were treasured by most, if not all, as the most meaningful aspect of the entire programme. Hearing directly from people whose lives have been immeasurably shaped by accelerating changes - environmental, cultural, political - was eye-opening, I think, for all involved. These interactions came in addition to the mood-boosting and rejuvenating outdoor activities in and around Iqaluktuuttiaq.

After a beautiful, sunny afternoon and evening spent in Yellowknife, we flew on to Anchorage. The contrast with Iqaluktuuttiaq was striking and immediate. Where Cambridge Bay is small, remote and deeply community-oriented, Anchorage is a sprawling American city; it is driving-centric, marked by a significant military presence, and lined with the chain restaurants and big-box stores that are characteristic of America. We were fortunate to have the time to explore beyond these initial impressions, and began to peel back the different layers of culture and history that define Anchorage and the surrounding region. By the end of a rainy and indoors-focused week, there was a shared, palpable desire to get outside and into the surrounding landscape. The weather cooperated on our final day, and hiking around Chugach State Park gave the week a proper ending.

One could ask an infinite number of questions about exactly how and why the change of plans came about, and whether revising Leg 2 was 'worth it' in various senses. Many of these questions have no impartial answer. What can be said with certainty is that everyone who came along for Leg 2 came away with a memorable experience, each of us changed and wiser in ways large and small. For a course focused on the holistic Arctic, the depth of understanding made possible by spending time on the land, with Indigenous Knowledge holders and locals, far exceeded what could have been achieved from the ship. It may not be a view shared by everyone, but I suspect many of us who were part of Leg 2 think of ourselves as the lucky ones, and take on the Inuktut phrase qajaittuq (translation: boatless) with honour.

Afternoon at the coast in Anchorage, USA. Photo: Andreas Altenburger

Epilogue

The Arctic Future Pathfinders cruise was made possible with the support of the following organisations: University of the Arctic (UArctic), Albedo Foundation for the Cryosphere, Global Affairs Canada, and Khalifa University. We express our gratitude for the collaboration with Memorial University of Newfoundland, the Indigenous Peoples' Secretariat for the Permanent Participants of the Arctic Council (IPS), and the Association of Early Career Scientists (APECS).

We are grateful to Jan-Erik Henriksen, Beate Bursta, Miyuki Daorana, and Malou Platou Johansen for sharing their knowledge and strengthening the Indigenous perspectives within the cruise. We received invaluable support and guidance from Navalik Tologanak from Iqaluktuuttiaq, Sammy Kogvik from Uqsuqtuuq/Gjoa Haven, and Adrian Schimnowski, without whom the second part of the course could not have taken place.

The second part of the cruise would also not have been possible without the contributions from Nunavut Arctic College (especially Deborah Clifford and Margaret Sullivan), Polar Knowledge Canada and the Canadian High Arctic Research Station (David Hik), the Kitikmeot Heritage Society (Helen Blawett, Emily Angulalik, and Pam Langan), and the hamlet of Iqaluktuuttiaq/Cambridge Bay, specifically the Cambridge Bay Wellness Centre, for the use of Annana's Camp and the Elders' Palace. We thank the community members of Cambridge Bay, specifically George Angohiatok, Margo Neglak, Kimberly Tologanak (TELUS World of Science, Edmonton), Josie Tucktoo, the elders from the Kitikmeot Heritage Society, and David Hik, for their educational contributions; Julia Ogina, Jerry

Puglik, Tamil Omilgoetok, Helen Blawett, and Malachai Angulalik for their drum-dance performance; Aopak Angulalik for translations; and Tommy Epakohak and George Angohiatok for support in sea-based sampling efforts. We thank the Royal Canadian Legion (Kim Crosbie and Mark Brown) for hosting us, and The Rooms Museum in St. John's (Kevin McAleese) for facilitating our visit, as well as the University of Alaska Anchorage (UAA) for letting us use their facilities. Our special thanks go to the UAA Institute of Social and Economic Research and its Director, Diane Hirshberg, who welcomed us with a reception and facilitated our exchange with UAA employees and students.

We thank Dolores Kivaqq Burnell and George Burnell from Point Barrow, Alaska, and their children, for their educational contributions in Anchorage, Alaska, along with the Aleut International Organisation (Sally Swetzof, Nadine Kochuten, Liza Mack, Okalena Patricia Lekanoff Gregory, Jessica Veldstra), Anchorage City Hall and the Mayor of Anchorage, Suzanne LaFrance; Henry P. Huntington from Ocean Conservancy; Betty Hernandez from the University of Alaska Anchorage; Adam Baldwin from the Anchorage Museum; Michelle Trefon from the Alaska Native Heritage Centre; Ron Vigil from the Alaska Law Enforcement Museum; Philippe Amstislavski from the Biomaterials Lab at UAA; Page Brannon from the Anchorage Consortium Library; Merrick Johnston from Solid Waste Services in Anchorage; Kevin Heller and Tricia Howe from the Alaska Native Tribal Health Consortium; and Svaja Worthington from The Little Lithuanian Museum.

We thank Saga Svavardsdottir and Yasemin Bodur for their continuous help with implementing the course, Kunuk Lennert for always ensuring the safety of all participants along both legs, Jørgen Berge, Anne-Marte Leivdal, Lena Figenschou, Tore Haukås, Karin Lia, Oline Lund Knudsen, Maria Nyang-Jørgensen, Sigrid Ag, Mustta Malharunmi, Morten Sætran for their remote support in challenging situations. We thank the crew of Statsraad Lehmkuhl for the time shared on board.

Additional thanks go to the two exhibitions that travelled with the cruise: first leg – 'Miracles of Nature' (Ann Eileen Lennert), and first and second legs – 'Living with the Ocean' (UiT's ArcHum and CRAFT Lab).

Ekaterina Mikhailova, UiT educator on the second leg, expresses her gratitude to the Ä´vv Saa´mi Mu´zei [Skolt Sámi Museum] in Neiden, Norway, for collaboration on developing a learning session, 'Indigenous Perspective on Heritage Preservation'.
Melania Borit, coordinator of the Arctic Future Pathfinders course, would like to thank the following persons for their support, recommendations, and insightful discussions: Edward Doolittle (First Nations University of Canada), Brandan Griebel (Pitquhirnikkut Ilihautiniq/Kitikmeot Heritage Society), Aileen Aseron Espiritu (UiT The Arctic University of Norway), Katja Enberg (University of Bergen), and Heather Igloliorte (University of Victoria, Canada).

Andreas Altenburger thanks the Ocean Census Foundation for its generous support of scientific sampling during the cruise. Bjørn Hatteng, UiT, and Helle Goldman, NPI, are thanked for guidance and tips in formatting the cruise report, as well as Yasemin Bodur, who proofread and commented on the final version of the report.

April 2026, Tromsø, Norway