CASCADES EXPEDITION
INSTITUT NORDIQUE DU QUÉBEC • INQ
SWISS POLAR INSTITUTE • SPI
INSTITUT PAUL-ÉMILE VICTOR • IPEV

MEDIA RELEASE
FOR IMMEDIATE RELEASE

CASCADES Expedition sets sail to investigate the impacts of Greenland glacier melt on the Arctic and beyond

Sion / Brest / Québec City, 6 August 2026 *– Today, the CASCADES Expedition leaves Québec City to board the Canadian research icebreaker CCGS* Amundsen *for its first leg in Baffin Bay and along the west coast of Greenland. The international expedition federates over 50 researchers from Canada, France, Greenland, and Switzerland across 13 multidisciplinary projects that will generate critical observations from one of the world's fastest-changing regions, helping improve projections of future climate change while strengthening international scientific collaboration. Coordinated by the Institut nordique du Québec (INQ), the Swiss Polar Institute (SPI) and the French Polar Institute (IPEV), the CASCADES Expedition benefits from the scientific infrastructure provided by Amundsen Science and is an endorsed action of the United Nations Decade of Ocean Science for Sustainable Development.*

The CASCADES Expedition will explore how melting glaciers, sea ice, and ocean ecosystems interact and shape the environment and the communities in the Arctic. This research is essential as the Arctic region is critical to climate systems worldwide. Switzerland is warming at about twice the global average, making international polar research increasingly relevant to local climate challenges that lie ahead.

Bringing together 13 international scientific projects covering 7 research clusters – spanning glaciology, oceanography, biogeochemistry, marine ecology, atmospheric science and climate modelling – and involving around 20 research institutions from four different countries, the expedition highlights the importance of international cooperation and the involvement of local communities when it comes to studying the changing climate and its impacts. The expedition is an endorsed action of the United Nations Decade of Ocean Science for Sustainable Development and contributes to the United Nations Decade of Action for Cryospheric Sciences.

The CASCADES Expedition will take place in two legs, aligned with two key Arctic phases: the melt of sea ice in August and the freeze-up in November. The first leg (Leg A) will conduct sampling along oceanographic transects in Baffin Bay and across a latitudinal range of glacier-fjord systems along the west coast of Greenland, with potential for land deployments. The second leg (Leg B) will focus on sea-ice formation in western Baffin. Studying these dynamics will bring a better understanding of ongoing climate shifts in the Arctic that affect the entire world.

Alongside the expedition, SPI is launching CLASSCADES, a series of free learning modules in French and German that will enable schoolchildren aged 8 to 12 to follow the expedition from their classrooms, to explore the science and daily life aboard the icebreaker CCGS *Amundsen*, and to learn about the Arctic and its importance. Starting in September, CLASSCADES is designed by Swiss Polar Class, the educational programme developed by SPI for primary schools.

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"CASCADES enables ambitious Swiss research projects and fosters cutting-edge international cooperation. As the Swiss Polar Institute celebrates its tenth anniversary this year, we are proud to support this collaboration between Canada, Switzerland, France and Greenland. The knowledge generated during this expedition in the Arctic will also help us better understand and address the environmental changes that are happening closer to home." – Christoph Hegg, Chair, SPI Foundation Board

"The CASCADES Expedition is an unprecedented effort to gain a better understanding of the transformation of Greenland's glaciers and the impact of their melting on the ocean and coastal communities. The global scale of this major challenge explains why researchers from several countries are coming together and pooling their expertise to analyse the many facets of this change, from glacier dynamics to the response of the marine ecosystem which underpins biological productivity and moderates the climate. Beyond the numerous measurements that will be taken, CASCADES is a fine example of scientific diplomacy and international collaboration." (quote translated from French) – Jean-Éric Tremblay, Scientific Director of the Institut nordique du Québec, Co-chief Scientist of the CASCADES Expedition

"The oceans preserve the memory of past climate changes and help us better understand those of today. By combining field observations and scientific analyses, this expedition will gather essential data to decipher the interactions between the ocean, ice, and climate, and to better assess possible trajectories."(quote translated from French) – Prof. Samuel Jaccard, University of Lausanne, Co-chief Scientist of the CASCADES Expedition

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MORE INFORMATION

CASCADES Expedition website in English:
→ https://cascades-expedition.science/
Access to the press room:
→ https://cascades-expedition.science/press-room/
CASCADES Expedition official Instagram account:
→ https://www.instagram.com/cascades_expedition/

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CASCADES: SCIENTIFIC PROJECTS

Further information about each project can be found at the following links:

Leg(s)	Project	Research topic	Principal Investigator(s)
A	FjordOC	Tracing organic matter across Greenlandic fjords	Lisa Bröder, ETH Zurich, Switzerland / University of Bergen, Norway
A	MAGIC	Mapping glaciers' ice thickness along the CASCADES route	Daniel Farinotti, ETH Zurich, Switzerland
A	MICRO-CASCADES	Microbial connectivity in a changing Arctic	Lucie Malard, University of Geneva, Switzerland
A	NorthWhale	Habitat use, behaviour and genetic connectivity of narwhals in North Greenland	Marie Louis, Greenland Institute of Natural Resources, Greenland
A	REMAP	Revealing marine particle dynamics in West Greenland	Maxi Castrillejo Iridoy, University of Lausanne, Switzerland
A	WATERPRINTS	Investigating freshwater export and intermediate water formation in Baffin Bay	Núria Casacuberta Arola, ETH Zurich, Switzerland / Institute of Marine Sciences (ICM-CSIC), Spain
B	Arctomics	Omics-based exploration of sea-ice recruitment of Arctic Ocean microbes	Chris Bowler, École Normale Supérieure, Paris, France
B	MIZOF	Marginal ice zone dynamics during ocean freeze-up	Dany Dumont, Institut des Sciences de la Mer (UQAR), Rimouski, Canada Stéphane Perrard, ESPCI, Paris, France Antonin Eddi, ESPCI, Paris, France
A & B	CARAMBAR	Source-to-sink carbon transfer using carbonate system parameters, oxygen, and radium isotopes	Bruno Lansard, Université Paris-Saclay, France
A & B	NITRO-BAFFIN	Nitrous Oxide (N_2O) Biogeochemistry in Baffin Bay	Jérôme Chappellaz, EPFL, Switzerland
A & B	TRACE-WGC	Tracing heat, nutrient and freshwater transfers and primary production along the West Greenland Current	Mathieu Ardyna, Takuvik International Research Laboratory, University of Laval, Québec City, Canada / Sorbonne University, CNRS, Paris, France
A & B	Uncertain-Seas	Zooplankton and Fish in the Biological Carbon Pump	Maxime Geoffroy, Marine Institute of Memorial University, Canada
A & B	Uncertain-Sinks	Benthic Carbon Cycling and Storage in Arctic Fjords	Ludovic Pascal, Université du Québec à Rimouski, Canada

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ABOUT THE PARTNER ORGANISATIONS

Institut nordique du Québec (INQ)

Institut nordique du Québec (INQ) is a leading hub for research and training on the North and the Arctic. Bringing together 17 Québec universities, numerous partners, and the Northern First Peoples, INQ fosters cross-sector collaboration to address major northern challenges. It contributes to enriching training, value-creating research, and the development of concrete, resilient, and adapted solutions for the North and the Arctic.
→ https://inq.ulaval.ca/
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LinkedIn: https://www.linkedin.com/company/institut-nordique-du-québec/
YouTube: https://www.youtube.com/channel/UC9JldOmvtd5QlqeMvz3EiSw

Swiss Polar Institute (SPI)

As an institution of national importance, the Swiss Polar Institute (SPI) supports scientists based in Switzerland who work on polar and remote high-altitude environments. SPI acts as a focal point for Swiss research in these regions, enhancing opportunities, promoting collaborations, and providing key services.
→ www.swisspolar.ch
LinkedIn: Swiss Polar Institute
X: @SwissPolar
Bluesky: @swisspolar.bsky.social
YouTube: @swisspolarinstitute

The French Polar Institute Paul-Émile Victor (IPEV)

The French Polar Institute is a public organization responsible for bringing to fruition French research operations in the polar regions of the Globe. The French Polar Institute deploys substantial resources and specially adapted, technologically advanced systems to research sites. The Institute also employs people with the special knowledge and skills required for top quality scientific research in extremely harsh polar conditions. Its activities span the Arctic, the French sub-Antarctic islands, and Antarctica, advancing our understanding of climate and environmental issues.
→ https://institut-polaire.fr/en/
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Amundsen Science

Based at Université Laval, Amundsen Science is the organization responsible for managing the scientific mandate of the research icebreaker CCGS *Amundsen*. Mobilized for research in 2002 thanks to major grants from the Canada Foundation for Innovation and other partners, the *Amundsen* is at the heart of a revitalized Canadian effort to study the changing Arctic Ocean. Since 2003, the research icebreaker has welcomed more than 120 Canadian and foreign teams, who have deployed 52 major scientific programs, totalling nearly half a billion dollars in research investment.
→ https://amundsenscience.com/
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Transforming Climate Action (TCA)
Transforming Climate Action (TCA) is an initiative dedicated to supporting collective efforts to better understand and address climate-related challenges. By bringing together diverse expertise, organizations, and partners, TCA promotes collaboration, knowledge sharing, and coordinated action. Its work contributes to the development of informed, forward-looking approaches that support resilience and long-term responses to climate change.
→ https://www.ofi.ca/tca/about

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