







THE INTERNATIONAL ARCTIC SCIENCE COMMITTEE (IASC)

The International Arctic Science Committee (IASC) is a non-governmental, international scientific organization. IASC encourages and facilitates cooperation in all aspects of Arctic research, in all countries engaged in Arctic research, and in all

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IASC 2020

PHOTO: MATS GRANSKOG

The research vessel Lance in a winter snowstorm, frozen into the pack ice North of Svalbard during the N-ICE2015 expedition.

areas of the Arctic. IASC promotes and supports leading-edge interdisciplinary research in order to foster a greater scientific understanding of the Arctic and its role in the Earth system.

[iasc.info]







INTERDISCIPLINARITY IASC

IASC promotes system-scale Arctic activities and encourages Arctic scientists to explore interdisciplinary questions, in particular across the natural and social sciences. This approach is emphasized by IASC "Cross-Cutting" activities, which are supported by at least two of the five

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IASC 2020

PHOTO: SIGURÐUR ÁRNASON

The Ósvör Sjóminjasafn (Ósvör Maritime Museum) in Bolungarvík, a replica of an old Icelandic fishing station.

IASC Working Groups.

[iasc.info/working-groups/cross-cutting/]







ARCTIC SCIENCE SUMMIT WEEK & THE 5TH ARCTIC OBSERVING SUMMIT

ASSW, including AOS, will be held from March 27 to April 2 in Akureyri, in the facilities of the University of Akureyri and Hof Cultural Centre. ASSW2020 includes an international assembly that will bring together international policymakers and scientists to discuss key Arctic issues ("Science for a Sustainable Arctic" on 27 March), IASC Business & Arctic Community Meetings (28-30 March), and the 5th Arctic Observing Summit (31 March - 2 April).

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View of Akureyri from the University of Akureyri and Borgir, where the Arctic Science Summit Week 2020 (ASSW2020) will take place from 27 March to 2 April 2020.

[assw2020.is]







IASC ATMOSPHERE WORKING GROUP

The scientific scope of the AWG includes research towards understanding and predicting the Arctic climate system, its change, and impacts of this change. Priorities include Arctic air pollution, which influences Arctic climate and feedbacks through trace gas and aerosol forcing, is harmful

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PHOTO: BARUN MAJUMDER

Northern Lights at the Arctic Research station at Trail Valley Creek, Inuvik, NWT, Canada.

IASC 2020

to Arctic communities and ecosystems. Other key priorities are atmosphere-ice and atmosphereocean coupling, Arctic paleoclimates, Arctic energy budget, and aerosol-cloud interactions in the Arctic.

[iasc.info/working-groups/atmosphere]







IASC CRYOSPHERE WORKING GROUP

The CWG's research interests span all elements of the cryosphere - the frozen regions of our planet - including sea ice, mountain glaciers, ice caps, icebergs, the Greenland ice sheet, snow cover, permafrost and seasonally frozen ground, and lake and river-ice. The CWG helps promote

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PHOTO: ALEKSANDRA MUSHTA

Scientists take a sea-ice core during the TRANSARCTICA 2019 expedition.

activities that enhance our understanding of these cryospheric components of the Arctic/ sub-Arctic and their interaction with the Earth's climate system.

[iasc.info/working-groups/cryosphere]







IASC MARINE WORKING GROUP

The scientific scope of the MWG shall include but not be limited to any marine natural science or engineering research. It facilitates international coordination of research in the Arctic marine environment and supports crosscutting objectives through face-to-face annual meetings. Scientific foci includes predicting and understanding rapid changes to the Ocean system, understanding biological and ecosystem processes in the Arctic and sub-arctic seas, sea ice structure dynamics and the Arctic system, geochemical processes in the Arctic and subarctic seas and enhancing and improving access to the paleo record of the Arctic Ocean through scientific drilling.

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PHOTO: VICTORIA BUSHMAN

Students learn about traditional Inuit qajaq revitalization, building, and maneuvering as part of the Canadian Students on Ice Expedition Program; Croker Bay, Tallurutiup Imanga National Marine Conservation Area, Nunavut. **IASC 2020**

[iasc.info/assw/marine]







IASC SOCIAL AND HUMAN WORKING GROUP

The scientific scope of the SHWG includes all aspects of social sciences, humanities and health research in the Arctic, as well as their connections with other IASC Working Groups. A wide range of topics is therefore of interest to the SHWG, including human health and well-being; livelihoods and land use; geopolitics and peace in the Arctic; vulnerability and resilience in changing socialecological systems; and perspectives of gender in Indigenous communities. As demonstrated by the supported activities in 2018/19, SWHG members address these topics in various ways: by going into depth on core concepts, by bringing a global perspective to the Arctic, and by working closely with local stake-, rights- and knowledge holders.

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PHOTO: ILYA ABRAMOV

Reindeer herders in the Russian Arctic.

IASC 2020

[iasc.info/working-groups/social-human]







IASC TERRESTRIAL WORKING GROUP

The TWG fosters and supports a broad spectrum of activities, reflecting the geo-, bio-, and social diversity associated with the Arctic terrestrial and freshwater realms. Recent highlights include the launch of 'T-MOSAiC' (the Terrestrial Multidisciplinary distributed Observatories for the Study of Arctic Climate; https://www.t-mosaic.com/) as a circumpolar, land-based program that will complement the IASC-supported ocean-atmosphere program, MOSAiC. With a very different emphasis, the TWG (together with the CWG and others) is also proud to support the development of The Frozen-Ground Cartoon(s), an international outreach and education project led by permafrost early-career scientists (https://frozengroundcartoon.com/cartoons/).

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PHOTO: IREK SOBOTA

Channels of the Waldemar River on Kaffiøyra, Svalbard.

IASC 2020

[iasc.info/working-groups/terrestrial]







IASC MEDAL

The IASC Medal is awarded each year in recognition of exceptional and sustained contributions to the understanding of the Arctic. The whole IASC community, from all countries, backgrounds, and career stages, is invited to submit nominations to the IASC Secretariat (until 31 December each

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PHOTO: MARTIN LULAK

Marie Šabacká samples sediment from cryoconites – small pits on the surface of the glacier which are full of microscopic life – in Ebbabreen, Svalbard.

year). IASC supports inclusivity and diversity and therefore particularly encourages nominations which take these values into consideration.

[iasc.info/medal]

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IASC CAPACITY-BUILDING

The IASC Fellowship Program engages early career scientists in the work of the IASC Working Groups. IASC Fellows are doctoral or postdoctoral researchers who are supported to participate in and help plan IASC activities and projects, as well as help with reporting to the IASC Secretariat. A call for applications is released each year in October, managed by APECS. IASC also supports programs to increase Indigenous participation in IASC science and ASSW, as well as science communication and other training activities.

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[iasc.info/capacity-building/fellowship]

PHOTO: MARIASILVIA GIAMBERINI

Scientists in Ny-Ålesund, Svalbard.







ARCTIC SCIENCE MINISTERIAL

ASM3, co-hosted by Iceland and Japan, will take place on 21-22 November 2020 in Tokyo, Japan. ASM3 aims to use the well-established foundation of the Ministerial as a means to take action on coordinated Arctic observing and research in an open, transparent format including all Arctic stakeholders. The involvement of international organizations such as IASC shows a broad recognition at the government level of the urgent response and action needed. The importance of coming together to develop and strengthen Arctic research cooperation and collaboration is essential. IASC contributes to ASM3 in consulting, convening, and representing the Arctic research community.

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PHOTO: KIRSTIN WERNER

Scientist Achim Randelhoff retrieves one of the many sea-ice cores sampled north of Svalbard during Polarstern's TRANSSIZ cruise.

IASC 2020

[asm3.org]







IASC SECRETARIAT

The IASC Secretariat is responsible for the daily operations of IASC. Among its tasks, the Secretariat provides support for the IASC Working Groups, Council, and Executive Committee; is responsible for IASC communications; coordinates with IASC partners; and administers IASC finances.

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PHOTO: OLGA GOMMERSHTADT

The "coldest fish street market" in the world is located in Yakutsk, where locals may sell fish at -50° C or lower.

Currently the Secretariat is based in Akureyri, Iceland and is supported by Rannís, the Icelandic Centre for Research, through at least 2021.

Get in contact with the IASC Secretariat if you have any question regarding IASC or Arctic Science!

[info@iasc.info]



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COVERPHOTO: LUCA BRACALI Oulanka National Park, Finland. **IASC 2020**