

International Science in the Arctic. The need for Arctic science.

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International Arctic Science Committee (IASC)

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International Science in the Arctic

THE NEED FOR ARCTIC SCIENCE

The Arctic is the home of almost 2 million people from more than 30 different societies, with different traditions and cultures. It is rich in natural resources and is a natural laboratory for understanding Planet Earth.

Thus there is a strong, continuing national and international interest in the Arctic, stimulated by the recognition of its scientific, political and economic importance.

The Arctic is changing and new developments bring new challenges, which should be addressed with new or improved scientific knowledge.

Arctic issues are circumpolar and international by nature and can best be solved by international scientific cooperation.

Arctic scientific studies should also include studies proposed by Arctic residents, dealing with scientific

questions important to them, based on their traditional knowledge of the region.

The Arctic has a major influence on global systems of climate, weather, ocean circulation and other important environmental issues.

It appears to respond more readily than other regions to global changes, and processes that occur mainly in the Arctic region can induce significant effects over the entire globe.

International cooperation is essential in order to meet the increasing need for scientific knowledge of the Arctic. It is an important factor in the wise development and management of the region, ensuring that Arctic research contributes fully to world science for the benefit of, not only Arctic citizens, but all peoples.



Field Camp.
International Polar Year 1882 – 83
 (from the archives of Norsk Polarinstittut)
 The photo portrays the field camp of
 Count Wilczek's polar expedition 1882 to
 Jan Mayen

OUR MISSION

The International Arctic Science Committee (IASC) is a non-governmental, international membership organisation that encourages, promotes and facilitates cooperation in all aspects of Arctic research, in all countries engaged in Arctic research, and in all parts of the Arctic. IASC strives to integrate human, social and natural sciences concerned with the Arctic and provide scientific advice on Arctic issues.

IASC AND ITS MEMBERS

IASC was founded on 28 August 1990 by national science organisations from all the arctic countries. Shortly afterwards similar organisations in other countries undertaking substantial research in the Arctic, became members.

Today, the following countries are members of IASC:

Canada	The Netherlands
China	Norway
Denmark	Poland
Finland	Russia
France	Republic of Korea
Germany	Sweden
Iceland	Switzerland
Italy	United Kingdom
Japan	United States of America

IASC ACTIVITIES

The main activity of IASC is to assist with the development of research projects for which circumpolar or international cooperation is necessary.

Members of IASC, scientists and individuals from the public may propose ideas for projects, which are submitted to IASC Council for selection. Each selected project is administered by a Project Planning Group, which receives guidance from IASC throughout the period of planning, development, implementation and the search for funding.

IASC gives **priority** to multidisciplinary projects on Arctic science issues, which require international cooperation. Nevertheless disciplinary proposals may also be accepted.

Appropriate proposals:

- Frame issues in **thematic** rather than disciplinary terms.
- Bring together the **natural, life and social sciences** to address substantive themes,
- Strengthen the **dialogue between the science community and the policy community**
- Address the concerns of those who live in **and near the Arctic**, and
- Consider the **priorities of the arctic science community in each member country**, and in the context of internationally agreed programmes.

OTHER IASC ACTIVITIES

- **The Arctic Science Conference**

In partnership with other Arctic organisations, IASC periodically convenes an interdisciplinary scientific meeting, where key scientific questions and issues are addressed.

The primary goal of these conferences is to be a part of the circumarctic research planning process, and thus be forward-looking rather than reporting past achievements. These conferences are known as ICARPs (International Conference for Arctic Research Planning).

- **ASSW: Arctic Science Summit Week**

IASC, in partnership with other arctic organisations, sponsors ASSW, which is held annually, usually during the last week of April.

The intentions of this event are to:

- bring together the major, international Arctic science organisations, by offering them a venue for their annual meeting
- encourage cooperation and cross-fertilisation, between these organisations, both through direct contact and by organising joint activities and reporting sessions.

- **ISIRA: The International Science Initiative in the Russian Arctic**

ISIRA is a Russian and international cooperative initiative, intended to assist Russian arctic science and sustainable development in the Russian Arctic by:

- initiating planning of multinational research programmes that address specific key problems in the Russian Arctic,
- providing a forum for linking together on-going or planned bilateral projects in order to achieve added value and avoid duplication,
- facilitating improved scientific access to the Russian Arctic
- advising on funding and organising implementation of projects agreed upon.

Members of the ISIRA Group comprise those countries having bilateral research projects in the Russian Arctic.

See their web site at:

<http://www.iasc.no/isira>



Reindeer herders in the field

(photo: Yulian Konstantinov)

From the research project:
"Contaminants and Human Health".

Infants are taking part in their studies in Nikel, Russia.



THE IASC ORGANISATION

IASC Council is composed of representatives of national scientific organisations from all (18) member countries. The President of IASC is elected by Council, who also elects 5 members to serve on the Executive Committee. Council usually meets once a year.

The IASC Council develops policies and guidelines for cooperative research concerned with the Arctic, and establishes Project Groups, and endorses plans arising from these Groups.

IASC Executive Committee operates as a board of directors and manages the activities of IASC between Council meetings. The Chair is the President of IASC.

IASC Regional Board is comprised of representatives from governmental scientific organisations in the eight Arctic countries. It ensures that the activities of IASC are consistent with the interests of the Arctic Countries.

Project Groups provide the main forums for developing scientific programmes and activities. They are international science planning and implementation groups.



Walrus

(photo: Øystein Wiig)

The walrus almost became extinct due to being hunted for their valuable tusks.

Today the walrus population is increasing after the introduction of protection measures.



THE IASC MECHANISM

IASC assists with project development by providing guidelines for preparation of project proposals, and makes annual assessments to monitor project progress and development. IASC also assists with modest travel support for attendance at meetings of Project Planning Groups.

The following points provide pointers for proposal development, and describe the benefits of an affiliation with IASC:

• **The Project Idea**

Before submission, the project idea should undergo critical evaluation regarding clarity of the formulation of the proposal, its innovativeness, and its fundability.

Proposals should be carefully written and consider IASC's mandate for circumpolar science and the criteria of appropriate potential funding agencies.

If you do not have a funding agency in mind, you could use the IASC web site and the following web site:

http://www.fundersonline.org/grantseekers/proposal_basics.html

• **Emphasise circumpolar cooperation**

Successful proposals usually address circumpolar issues that require circumpolar partnerships and cooperation.

For example, studies of global change require wide geographic coverage. Studies involving economics, medicine and law, may benefit from the comparative approach in several regions of the Arctic, and the use of standard methods for data gathering and analysis.

• **IASC acts as a consultative and testing forum**

Through its 18 member countries, IASC is linked to all major participants in Arctic research.

By using IASC, your proposal will immediately reach all those with the knowledge and expertise for responding.

Provided your proposal attracts an interest from our members, our usual procedure is to:

• **Appoint and support a Project Planning Group**

The task of the Project Planning Group is to formulate a science and implementation plan. As proposals range from initial project ideas from individuals, to proposals based on considerable national or other group planning, the needs for preparing a proper proposal may vary accordingly.

However, an important key to successful funding and implementation is to identify the very best scientists available for this planning phase.

To ensure the success of a Project Planning Group, people need to meet and discuss. Some have access to travel money, whereas others have not and the IASC General Fund is set up to help those without travel funds.

• **Progress is monitored**

Normally, a group is expected to finalise a science and implementation plan within 2 years. During this period, the IASC Executive Committee monitors progress and provides advice.

Once a year, the IASC Council members review all projects. Although they may not be specialists on the theme of your proposal, their collective experience and knowledge of Arctic research is the best available, and their advice can be very valuable.

• **Travel support for younger scientists**

While IASC is not a funding agency, it does encourage and provide travel stipends to support the involvement of younger scientists in the planning of IASC projects. IASC has found that identifying a promising PhD student, interested in the core issue of a project, has often proved to be mutually beneficial to all concerned.

• **International visibility**

Information on all IASC projects is available on the IASC web site:
<http://www.iasc.no/>

The IASC Project Catalogue is published annually and distributed to key persons in Arctic science, funding, and the Arctic policy community.

In addition, members of the IASC Executive Committee, Council and Regional Board are directly involved in a reviewing process as described above.

• **Funding**

In general, international projects being drafted by the best expertise available, and receiving advice as mentioned previously, should be in a favourable position for obtaining funds for implementation of the research planned by a Project Group. IASC links, both formal and informal, to a number of funding agencies also provide knowledge of the special priorities of funding agencies.

A special research funding section, intended to serve all Arctic scientists, will be found on the IASC website.

IASC Secretariat serves the organisational needs of IASC. It is accountable to the Executive Committee and is located in Oslo, Norway.

Services from the IASC Secretariat
IASC Progress – quarterly newsletter

IASC Project Catalogue – an annual listing and description of Project Groups and their activities.

SAM – Survey of Arctic Meetings

Polar Acronyms

IASC Publications

Further details at: www.iasc.no

IASC on the Internet

You are welcome to visit us at:
www.iasc.no

In addition to information about IASC activities and projects, this web site offers funding advice and is a gateway to a wide selection of national and international web sites related to the Arctic.

THE IASC SECRETARIAT

Middelthunsgt. 29
PB 5156 Majorstuen
N-0302 Oslo, Norway

Phone: +47-22 95 99 00
Fax: +47-22 95 99 01

E-mail: iasc@iasc.no
Web site: <http://www.iasc.no>



Model of Arctic Bathymetry. IASC together with the International Oceanographic Commission (IOC) have had a project group creating a modern digital data base and publishing a new International Bathymetric Chart of the Arctic Ocean (IBCAO). The bathymetric data are available at: <http://www.ngdc.noaa.gov/mgg/bathymetry/arctic/arctic.html>

Graphic created by Martin Jakobsson

IASC Executive Committee

Prof. Peter Johnson	Canada	peterj@uottawa.ca
Prof. Dr Dieter Fütterer	Germany	dfuetterer@awi-bremerhaven.de
Dr Kristján Kristjánsson	Iceland	kristjank@rannis.is
Prof. Dr Louwrens Hacquebord	The Netherlands	L.Hacquebord@let.rug.nl
Professor Patrick J Webber	USA, President of IASC	webber@msu.edu
Dr Niels Einarsson	(Regional Board Chairman) Iceland	ne@unak.is

IASC Council

Canada	Prof. Peter Johnson	peterj@uottawa.ca
China	Dr Chen Liqi	Lqchen@soa.gov.cn
Denmark/Greenland	Dr Tom Greiffenberg	tog@gh.gl
Finland	Prof. Boris Segerstahl	seger@cc oulu.fi
France	Dr Gérard Jugie	Gerard.Jugie@ifremer.fr
Germany	Prof. Dr Dieter Fütterer	dfuetterer@awi-bremerhaven.de
Iceland	Dr Kristján Kristjánsson	kristjank@rannis.is
Italy	Dr Marcello Manzoni	manzoni@pug.univ.trieste.it
Japan	Prof. Okitsugu Watanabe	watanabe@pmg.nipr.ac.jp
Republic of Korea	Dr Byong-Kwon Park	bkpark@corp.re.kr
The Netherlands	Prof. Dr Louwrens Hacquebord	L.Hacquebord@let.rug.nl
Norway	Prof. Rolf Anker Ims	rolf.ims@ib.uio.no
Poland	Prof. Dr Krzysztof Birkenmajer	ndbirken@cyf-kr.edu.pl
Russia	Prof. Vladimir I Pavlenko	arctic@pran.ru
Sweden	Professor David G Gee	gee@geofys.uu.se
Switzerland	Prof. Thomas Stocker	stocker@climate.unibe.ch
United Kingdom	Prof. Julian Dowdeswell	jdl6@cam.ac.uk
United States of America	Prof. Patrick J Webber	webber@msu.edu

IASC Regional Board

Canada	Dr Steven Bigras	bigrass@polarcom.gc.ca
Denmark	Dir. Hanne Petersen	hkp@dpc.dk
Finland	Prof. Dr Paula Kankaanpää	paula.kankaanpaa@urova.fi
Iceland	Dr Niels Einarsson, Chairman	ne@unak.is
Norway	Prof. Olav Orheim	orheim@npolar.no
Russia	Dr Boris A Morgunov	mecon@nm.ru
Sweden	Prof. Anders Karlqvist	anders@polar.se
USA	Dr Karl Erb	kerb@nsf.gov

International Arctic Science Committee Secretariat, Oslo, Norway

Executive Secretary:	Odd Rogne	iasc@iasc.no
Administrative Assistant	Margaret Ellson Davies	iascdesk@iasc.no