

IPY 2012 CONFERENCE
MONTRÉAL, APRIL 22-27
INTERNATIONAL POLAR YEAR



Second Circular
IPY 2012 *From Knowledge to Action* Conference
April 22-27, 2012
Montréal, Canada
www.ipy2012montreal.ca

The *From Knowledge to Action* International Polar Year (IPY) 2012 Conference features the latest polar research results from global leaders in Arctic and Antarctic science. Endorsed by the World Meteorological Organization (WMO) and the International Council for Science (ICSU) as the third and final conference to close IPY 2007 – 2008, the *From Knowledge to Action* Conference will be hosted in Montréal, Canada from April 22-27, 2012.

Occurring at a pivotal moment for the environment of our planet, this Conference draws international attention to global environmental issues that affect us all. We are witnesses to the global impacts of climate change. Scientific evidence reveals the critical role that the polar regions play in the Earth's systems. What is happening at the Poles will alter the polar environments and change the course of human and economic development.

From Knowledge to Action will bring together Arctic and Antarctic researchers, policy- and decision-makers, and a broad range of interested parties from academia, industry, non-government, education, Arctic communities, and circumpolar indigenous peoples. Together these groups will address challenges, share and apply knowledge of the polar regions and discuss opportunities and solutions for adapting to global change.

The IPY 2012 Conference will contribute to the translation of new polar scientific findings into an evidence-based agenda for action that will influence global decisions, policies and outcomes over the coming years.

The Conference Program

The conference includes **four major program areas**: *Science Highlights* (Area 1), *Synthesis and Integration* (Area 2), *From Knowledge to Action* (Area 3), and *Public Engagement, Education and Outreach* (Area 4).

Science Highlights (Area 1) and Synthesis and Integration (Area 2)

Researchers are invited to present the latest science results from the polar regions, including highlights of IPY interdisciplinary research and indigenous knowledge, to the *Science Highlights and Synthesis and Integration* sessions. Presentations, both oral and poster-based, will address the following five scientific themes:

1 Polar regions and linkages to global systems and beyond. This theme includes recent advances in understanding atmospheric, oceanic and biogeochemical processes and earth structure and geodynamics at the poles. Syntheses of these advances will address issues such as teleconnections and modes of polar climatic variability; the global impacts of a changing cryosphere, including ice sheets, sea level and methane release from permafrost; and human impacts of globalization in polar regions.

2 Past, present and future changes in the polar regions. In polar regions, the ongoing warming of the lower atmosphere melts the sea-ice and snow cover and destabilizes continental and coastal permafrost thus accelerating geophysical processes, often in spectacular ways. In the Arctic, indigenous knowledge adds to our understanding of these changes and their impacts at the local and regional scales. The palaeo-record of past polar climate and land use provides context to present change, while projections of future change inform policy and adaptation strategies.

3 Polar ecosystems, biodiversity and effects of human activities. While strange new ecosystems are discovered under the Antarctic ice sheets, marine, freshwater and terrestrial Arctic ecosystems are strongly impacted by climate change. From viruses to whales, IPY 2007-2008 greatly advanced our understanding of polar biodiversity thanks to the techniques of molecular biology. The potential impacts of industrialization and contamination on polar ecosystems are monitored and modelled. Hemispheric and regional syntheses of the impacts of change on ecosystem services link science and policy.

4 Human dimension of changes: health, society, culture and resources. Natural resource exploration, exploitation and commercial activities including tourism, are increasing at the poles. These, and environmental change, affect human health and well-being, including food security in the Arctic. Polar archaeology, cultural heritage sites and conservation provide a baseline for assessment of present changes. Meeting these challenges requires new paradigms of governance and management, which should include adaptation and mitigation strategies from local community perspectives.

5 New frontiers, technologies and data practices in polar research. New frontiers include investigations of astronomy, astrophysics and earth – solar interactions from the poles. Proposed new polar observing systems will be a legacy of IPY, and advances in automated observations and remote sensing technology are increasing our polar research capability. Wide spread access to, and sharing of polar data are other IPY legacies. One example of the benefits of new observing systems and better data access will be improved projections and forecasts from climate and weather models.

From Knowledge to Action (Area 3)

In Area 3 the terms “knowledge” and “action” are used broadly and are intended to cover knowledge (scientific, indigenous local and practitioners’ knowledge) and action in all their forms. Area 3 will include perspectives (i.e. from the Arctic, Antarctic and middle latitudes), as well as lessons from previous IPYs. There will be an opportunity for gaining insights by comparing Arctic and Antarctic stakeholders’ experiences and perspectives.

The themes to be explored in Area 3 include:

- The Knowledge-Action Interface: Major lessons & findings emerging from the polar regions that require, and have potential for, action.
- Creating the Conditions for Action: Factors that affect who uses polar knowledge, when, where, how and for what purposes.
- Polar Knowledge in Action in Sectors and Projects: IPY findings that require, have potential for, or have resulted in action.
- Realizing Knowledge-to-Action in Policies, Management and Decision-Making Processes at all Levels: Local to global.

Recognizing that the processes involved in translating knowledge to action are complex, sessions will explore current thinking on best practices for how knowledge is produced and translated into action. Factors that affect the extent to which knowledge (in all its forms) makes a difference in real-world activities, operations and decision-making processes will be examined. Sessions will include practical applications of knowledge emerging from the polar regions across a broad range of sectors, projects and geographical areas, including local users, industry, business, health workers, educators, tourism, etc.

In addition, Area 3 includes sessions that examine arrangements for cooperation & collaboration; mechanisms and processes for accessing and understanding Polar knowledge; methods of building awareness, translating knowledge into usable formats to enable action; monitoring polar change and so on. Polar knowledge is relevant to the global community. Similarly, global changes will impact the polar regions. Therefore, Area 3 will also include sessions on polar knowledge in policy, management and decision-making processes. Diverse management and governance issues, from local to global, will be covered. Case studies of polar knowledge in action are welcomed.

Public Engagement, Education and Outreach (Area 4)

Scientific research outputs from International Polar Year have deep significance, relevance and benefits to civil society. In the fourth area of the IPY 2012 *From Knowledge to Action* Conference, participants from around the world will work to advance public engagement to further action on polar issues. This area explores how effective public engagement can promote, explain and involve different sectors of society in dialogue and activities that can help shape our future. Keynote presentations, thought-provoking panel discussions and workshops will provide the focal points for translating polar knowledge into actions that enable people to live with, adapt to, or benefit from, our changing world.

Themes to be explored in Area 4 include:

- Harnessing the power of digital media for citizen engagement in polar science.
- Inspiring and enthusing the next generation in the importance and value of science that benefits all.
- Engaging consumer society in the value of polar science for underpinning policy and business decisions relating to energy, climate and food security.
- Making an impact through the role of the media in influencing political, business and societal decision-making.

Developing the Program Sessions

If you have questions or would like to provide input to the content or scope of the program sessions, please contact the Conference Secretariat at: IPY2012montreal@inac.gc.ca or the Program Committee Chairs (listed below):

<p>Area 1 - Science Highlights Chair, Dr. Ian Allison (Australia) International Association of Cryospheric Sciences Ian.Allison@utas.edu.au</p>	<p>Area 3 - Knowledge to Action Chair, Dr. Bernard Funston (Canada) Chair, Canadian Polar Commission bernard.funston@polarcom.gc.ca</p> <p>Co-Chair, Dr. Paula Kankaanpää (Finland) Director, Arctic Centre University of Lapland paula.kankaanpaa@ulapland.fi</p>
<p>Area 2 - Science Synthesis and Integration Chair, Dr. Louis Fortier (Canada) Scientific Director, ArcticNet- Network of Centres of Excellence of Canada louis.fortier@bio.ulaval.ca</p>	<p>Area 4 - Public Engagement Chair, Ms. Linda Capper (United Kingdom) Head of Communications, British Antarctic Survey lmca@bas.ac.uk</p>

Conference schedule

Each day of the *From Knowledge to Action* Conference will feature a program of keynote speakers, plenary panel discussions, concurrent sessions, as well as poster sessions. The conference-wide plenaries will explore important themes related to topics of polar change, global linkages, communities and health, ecosystem services, infrastructure, resources and security. The Conference Steering Committee is currently inviting keynote speakers and would welcome your thoughts and suggestions at IPY2012montreal@ainc-inac.gc.ca.

Within the Conference sessions there will be a mix of oral presentations with workshops, debates, and interactive presentations to provide conference participants with the opportunity to present and discuss the application of research findings, policy implications and how to take polar knowledge to action.

The Conference will open at the Palais des congrès in Montréal with a welcome reception and icebreaker on Sunday, April 22nd, followed by the opening ceremony on the morning of Monday, April 23rd, 2012. The conference will close early afternoon on Friday, April 27, 2012. The banquet will be held the night of Thursday, April 26 and will feature a performance by the world-famous Cirque du Soleil.

TIMES	Sunday April 22	Monday April 23	Tuesday April 24	Wednesday April 25	Thursday April 26	Friday April 27	
8:30	Side Meetings	Conference Opening	Plenary Keynote:	Plenary Keynote:	Plenary Keynote:	Plenary Keynote:	
9:00			Break/Press	Break/Press	Break/Press	Break/Press	
9:30		Break/Press	Parallel Sessions	Parallel Sessions	Parallel Sessions	Parallel Sessions	
10:00		Opening Plenary Keynote: Polar Change					
10:30		Lunch/Press	Lunch	Lunch	Lunch	Closing Ceremony	
11:00							
11:30		Parallel Sessions	Parallel Sessions	Parallel Sessions	Parallel Sessions		
12:00		Parallel Sessions	Parallel Sessions	Parallel Sessions	Parallel Sessions		
12:30		Break	Break	Break	Break		
13:00		Plenary Panel: Poles and Global Linkages	Plenary Panel: Adaptation to Change	Plenary Panel: Ecosystem Services	Plenary Panel: Communities & Health		
13:30	Earth Day Events and Public Lecture	Poster Session A	Poster Session A	Poster Session B	Poster Session B		
14:00							
14:30		Polar Film Festival	Polar Film Festival	Polar Film Festival	Banquet		
15:00							
15:30		Polar Film Festival	Polar Film Festival	Polar Film Festival	Banquet		
16:00							
16:30		Polar Film Festival	Polar Film Festival	Polar Film Festival	Banquet		
17:00							
17:30		Polar Film Festival	Polar Film Festival	Polar Film Festival	Banquet		
18:00							
18:30	Icebreaker Welcome Reception	Polar Film Festival	Polar Film Festival	Polar Film Festival	Banquet		
19:00							
19:30		Polar Film Festival	Polar Film Festival	Polar Film Festival	Banquet		
20:00							
20:30		Polar Film Festival	Polar Film Festival	Polar Film Festival	Banquet		
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20:30		Polar Film Festival	Polar Film Festival	Polar Film Festival	Banquet		
20:30							
20:30		Polar Film Festival	Polar Film Festival	Polar Film Festival	Banquet		
20:30							

Key dates	Opens	Closes
Call for Abstracts	June 15, 2011	September 30, 2011
Application for Student and Early Career Scientist travel grants	June 30, 2011	October 31, 2011
Early Bird Registration opens	September 15, 2011	February 28, 2012
Late Registration	March 1, 2012	April 27, 2012
Request a Side Meeting or Event	April, 2011	February 15, 2012
Conference Dates	April 22-27, 2012	

Conference Activities and Side Events

For students and early career scientists, the Association of Polar Early Career Scientists (APECS) and the ArcticNet Student Association are working together on a career development workshop entitled *From Knowledge to Careers* to be held April 19-22 2012. For more information see www.apecs.is/workshops/ipy-montreal-2012. Planning for other events underway include a Polar educators' workshop, Polar film festival, APECS Networking event and local public events to celebrate Earth Day on April 22, 2012.

Business Meetings

A number of business and side meetings are being organized in conjunction with the IPY 2012 Conference. Arctic Science Summit Week 2012 meetings will be held in Montréal from April 20-22. Other meetings and events are being scheduled for the Arctic Monitoring and Assessment Programme (AMAP), Northern Contaminants Program (NCP), ArcticNet Annual Scientific Meeting, Canadian Society for Circumpolar Health, International Network for Circumpolar Health Research, APECS Networking meetings, Arctic Archaeologists and Polar Archaeology Network. Contact the Conference Secretariat to reserve space for your meeting at IPY2012montreal@inac.gc.ca.

Support for Students

Students and early career scientists will have a reduced registration fee of \$400 to attend the IPY 2012 *From Knowledge to Action* Conference. Travel support will be available to students and early career scientists on a competitive basis to support their travel and accommodation to attend the conference. Further information will be made available on the criteria and application process when the Call for Abstracts is issued in June 2011.

Registration & Fees

Registration	Date	Fees
Registration Opens	September 15, 2011	
Early Bird Registration	until February 28, 2012	CDN \$700
Late Registration	from March 1 st – April 27, 2012	CDN \$800
Student and Early Career Scientists		CDN \$400
Polar Educators Workshop		TBD

Montréal: An Outstanding Conference City

Montréal, Quebec is a beautiful, historic city with a population of over 3 million in the metropolitan area. Both French and English are widely spoken and the city is renowned for its rich cultural and artistic life. The Conference is being held at the Palais des congrès located in the heart of downtown, within walking distance of Old Montréal, the Saint Lawrence River, as well as numerous excellent restaurants and hotels.

Conference Chair and Steering Committee

The planning of the conference is being led by the Conference Chair, Dr. Peter Harrison, the Stauffer-Dunning Chair and Director of the School of Policy Studies at Queen's University in Kingston, Ontario, along with an international Steering Committee made up of representatives of numerous polar science organizations.

Partnership Opportunities

We are seeking partners and exhibitors interested in joining us to support the IPY 2012 *From Knowledge to Action* Conference. Check out the Prospectus and information on exhibits available on the Conference website (www.ipy2012montreal.ca) to see some of the many opportunities to support this important international Conference and contribute to the application of the new polar knowledge to action.

Accommodation

Montréal offers an amazing array of hotel options within steps of the Conference venue, the Palais des congrès in Old Montréal. To see a sampling of accommodations and the special conference rates which have been secured by the organizers, please visit the conference website.

Interested in receiving further information about the conference? Contact us at IPY2012montreal@inac.gc.ca.

