International Polar Year: status and update

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ArcticNet AGM - Banff, Alberta - 14 December 2005
An international program of coordinated, interdisciplinary, scientific research and observations in the Earth’s Polar regions
Motivation for an IPY in 2007/09?

- The planet is changing - the poles have a global impact
- Many scientific questions remain beyond the capabilities of individual nations
- Working cooperatively is essential in polar regions
- Anniversary of previous Polar Years in 1882, 1932 and 1957 (IGY)
- Opportunity to act on recommendations of recent studies and reports
- ‘kick-start’ ICARP II
IPY 2007-2008 co-sponsored by the International Council for Science (ICSU) and the World Meteorological Organization (WMO)

Established a Joint Committee (November 2004) to oversee coordination and implement the IPY activities with support of the International Program Office - www.ipy.org

Endorsed by Arctic Council, University of the Arctic, IASSA, IASC, SCAR, many other scientific bodies

National Committees for each participating country - 32 NC’s, 62 countries
1. Current Status of Polar Regions
2. Change in the Polar Regions
3. Global Linkages
4. New Frontiers
5. Polar Regions as Vantage Points
6. The Human Dimension

**The Human Dimension also runs through the first five themes**

**Data Management; Education, Outreach & Communications are overarching activities embedded into in all six themes**
Characteristics of IPY Activities

- Makes **significant advances**
- Involves **at least one polar region** and may include nations not traditionally involved in polar research
- Occurs within **IPY timeframe**
- Includes **international** and interdisciplinary collaboration
- **Organizational management** plan & structure and builds on existing plans, programmes or initiatives
- Secured (or plan for) **funding**
- **Data management** plan that adopts IPY principles
- Secures appropriate **logistical support**
- **Education, outreach and communication** plan
- Fosters the **next generation** of polar researchers
Planning for IPY in Canada

National Committee
(22 members from gov’t, Universities and Colleges, the North)

Federal IPY program office and working group
(~22 departments and agencies)

Canadian Polar Commission

Canadian IPY Secretariat
(hosted by University of Alberta)

IPY Youth Steering Committee
(youth and early career scientists)
Canadian granting agencies and federal departments are already supporting many northern research activities - for example:

- NSERC Northern Research Chairs
- SSHRC Northern Research Development Grants; involvement in BOREAS
- CIHR Institute for Aboriginal Peoples Health; Northern and Rural Programs
- Northern Contaminants Program
- Northern Ecosystems Initiative
- C-CIARN North (Climate Change Impacts/Adaptation Research Network)
- ArcticNet Network of Centers of Excellence
- etc

$133M/yr
Interest in northern science and research (and IPY)...

Security

Economic Development

Environment, Climate Change & Contaminants

People

Health
Culture
Governance
....is reflected in some recent policy discussions
Who is talking about IPY?
National Science Advisor

“The knowledge and skills we can apply to pursuing our objectives in the north can be the legacy that we leave for present and future generations of the Canadian North. It is an exciting opportunity and one that I think we should all rally around.” (Nov 2004)

“IPY 2007-2008 will feature an intense, international campaign of research that is expected to be a landmark in international polar science, and will lay the foundation for decades of future polar research.” (Jan 2005)
Process & Deadlines

Call for Expressions of Intent (pre-proposals)
- January 15 & ongoing (>1200 submitted)

Call for Full Proposals
- June 30 (110 submitted)
- September 30 (119 submitted)
  - Canadian researchers involved in 60-70%

January 31, 2006
next date for submissions
Approximately 500 ‘named’ Canadian partners/collaborators
IPY Project No: 113
Deep Permafrost Scientific Drilling
Scott Dallimore, Geological Survey of Canada
Doug Schmitt, University of Alberta
Northern liaison: Andrew Applejohn, ARI

Multi disciplinary study of deep permafrost: Geotechnical, geothermal, geochemical, gas hydrates/free gas, microbiology
To monitor and assess the impacts of global change on the Human-\emph{Rangifer} system across the circumarctic, through cooperation, both geographically and across disciplines.
How to get involved?

Look at proposals already submitted

www.ipy.org

- see list of FAQ’s

January 31, 2006

next date for submissions

RECENT IPY ACTIONS (and answers to some probable questions):

1) Extend final deadline for IPY Coordination Proposals to 31 January 2006.

Why? To give groups some extra time to work on these proposals.

My national funding process requires an IPY endorsement. Do I need to submit a coordination proposal? If you have already submitted an IPY Expression of Interest, you should first consider making a connection to an existing, already endorsed, Coordination Proposal – use the IPY planning chart to find existing Coordination Proposals in your area of science. A short email from you and from the Proposal coordinator saying that you have joined will enable you to share the existing endorsement. If you have not yet submitted an IPY Expression of Intent, please do so (contact ipy1@bas.ac.uk for assistance), and then first consider following the steps above to join an existing Coordination Proposal. If, and only if, your existing or new Expression of Interest does not fit, scientifically, with one of the existing Coordination Proposals, work with partners to develop a new Coordination Proposal, according to guidelines already published. Please remember that the IPY Joint Committee will evaluate all Coordination Proposals on the basis of the level of international collaboration and on evidence for links to other IPY activities.

How does a Coordination Proposal differ from an IPY Expression of Interest? A Coordination Proposal integrates the activities of several to many researchers around a shared scientific theme or shared education and outreach activity. An Expression of Interest describes the intended activities of a single investigator or team of investigators, focussed on a specific activity. For example, a Coordination Proposal on northern glaciers would integrate the activities of many teams studying individual glaciers or glaciers in one region in order to provide a coordinated circumpolar assessment of glacier dynamics.

Will the Joint Committee accept IPY Coordination Proposals after 31 January 2006? In an ideal world, no. In reality, only rarely and only for very unusual reasons.
Canadian IPY Program

- **Innovative, relevant, interdisciplinary and integrative**
  - ensured through a rigorous, transparent process

- **Cross-sectoral**
  - involvement of government, academia, Northerners, Aboriginal organizations, industry, NGOs, in management and programs

- **Inclusive of territories/provinces and northern organizations & communities**
  - involvement in decision-making processes
Request for Proposals
International Polar Year Projects in the Natural Sciences and Engineering

Extension of Deadline for NSERC Request for Proposals to Support Participation of Canadian Researchers in the International Polar Year 2007-08

The deadline for the submission of proposals in support of International Polar Year (IPY) projects has been extended to November 28, 2005. This is a result of the recent federal announcement of further funding to support Canada’s participation in IPY (http://www.ipy-api.ca/english/index.html).

The new federal funding initiative is focused on “Climate Change Impacts and Adaptation” and “Health and Well-Being of Northern Communities,” and NSERC is not directly involved in this program. NSERC expects that applications related to these areas will be submitted to the federal departments managing this funding process. Applications received at NSERC that we determine are more appropriate for this, or other funding initiatives, will be redirected to the appropriate program.

To be considered for NSERC funding, the proposed IPY project must be endorsed by either the national or international IPY Committee. A proposal may be submitted to NSERC for a project that has not yet received official IPY endorsement from NSERC, although this is discouraged.

- One-time funding opportunity for natural sciences or engineering research projects
- Focus is on first five IPY themes
- 10 to 15 high-quality research projects, each for up to three years' duration.
- Researcher teams can request a maximum of $500,000/year for three years, but it is expected that the majority of funded projects will receive support in the range of $100,000 to $200,000/year.
GOVERNMENT OF CANADA ANNOUNCES $150 MILLION FOR CANADIAN PARTICIPATION IN INTERNATIONAL POLAR YEAR

EDMONTON (ALBERTA) September 21, 2005 - The Honourable Anne McLellan, Deputy Prime Minister and Member of Parliament (Edmonton Centre), today announced Canada’s participation in International Polar Year 2007 - 2008, the largest ever international research program in the polar regions. The Government of Canada will provide $150 million in new funding over six years to carry out an innovative, interdisciplinary program for International Polar Year (IPY) along with our international partners.

"We are an Arctic nation. Nearly one-quarter of the Arctic region falls within Canada's borders," said Minister McLellan. "This International Polar Year will mark the first time in fifty years that so many nations will focus their collective efforts on major questions of science in the Earth’s polar regions. This is our generation's opportunity to move the markers ahead on northern science and research, and, as has been done in past International Polar Years, achieve those breakthroughs in knowledge that change forever the way we understand and consider our northern and Arctic regions."

Focus on science and research contributions in two areas:

1. Climate change impacts and adaptations;

2. Health and well-being of northern communities
General criteria for the Government of Canada program

- Address one or more IPY objectives (six IPY themes);
- Generate knowledge, data and information that is fundamental to support priority areas of Northern science;
- Integrate the physical, chemical, biological, health and social sciences along with traditional knowledge, as appropriate;
- Support extensive involvement of and foster research partnerships with Northerners in IPY activities;
- Promote Canada as an international leader in polar science;
- Leave a legacy of enhanced capacity for Northern science and research, especially in the Canadian North itself.
Challenges for all investigators

- Infrastructure and logistics support
  - Polar Continental Shelf Project
  - Accommodation
  - Transportation
  - Aircraft
  - Ships
  - Access to research stations
  *Don’t take these for granted!*  
  *Capacity will be an issue.*

- Licenses and Permits

- Hiring of local staff

- Health & safety procedures

- Engaging northern communities

- Partnerships and collaboration

- Communications, outreach, & education

- Data and information management
Northern Community Involvement

- Community meetings hosted by Canadian Polar Commission and others

- Communities involved in IPY in various ways (i.e. research leaders, resource providers, etc.)

Benefits for communities:
- Opportunities for increased access to research/researchers
- Opportunities to lead research
- Enhanced capacity and opportunities for the next generation of youth
- Economic impacts of increased local activity
How Can Communities Participate?

- Link local research projects with other circumpolar communities
- Develop research projects driven by community issues that highlight traditional knowledge
- Participate as a project leaders, guides, or students
- Provide information for researchers
- Teach visitors about local culture and people
Research Stations/Communities

What capacity is going to be required when and where?
Welcome to CANIPY IMS
Bienvenue à CANIPY IMS

Canadian International Polar Year Internet Map Server
Serveur de cartographie internet de l'Année Polaire Internationale

CANIPY How-to Guide / CANIPY Guide d'Instructions:
Download in PDF format. / Télécharger en format PDF.

CANIPY Browser Issues / Problèmes avec le navigateur CANIPY:
Unfortunately, due to the size and detail of the CANIPY IMS, low speed connections such as dial-up, may encounter difficulties viewing and receiving contents. As a result these connections are not recommended for this website. Please see the DATA section on the left to download CANIPY data alone.

Malheureusement, en raison de la taille et du détail de CANIPY IMS, les connexions à vitesse réduite (modem téléphonique par exemple) peuvent rencontrer des difficultés regarder et recevoir le contenu. En conséquence ces connexions ne sont pas recommandées pour ce site Web. Veuillez regarder la section de données DATA à gauche de l'écran pour télécharger les données utilisées pour CANIPY sans accès à la carte interactive.

CANIPY News / Actualités CANIPY:

- We are presently completing the addition of the last remaining final submissions to CANIPY and our databases. All projects should be available for viewing as soon as mid-November.
- Thematic classification of the projects should be updated soon.
- CANIPY is an evolving website and your suggestions and/or corrections are welcome.
- Nous complétons présentement l’ajout des soumissions finales à CANIPY et aux bases de données. Ces projets pourront être visualisés dès la mi-novembre.
- La classification thématique des projets devraient être mise à jour bientôt.
- CANIPY est un site évolutif et vos suggestions et/ou corrections sont les bienvenues.
Interactive Map Server

Canadian International Polar Year Internet Map Server (CANICY)
Serveur de Cartographie d'Internet pour l'API

Field Name: Field Value
- INT: 11
- LEAD_COUN: Canada
- OTHER_COUN: USA, Denmark, Norway, Sweden, Netherlands, Finland, Germany and Russia
- PROJ_COUN: Arctic Wolves - Projet Loups de l'Arctique
Communications & Outreach

Website
www.ipy-api.ca

Newsletters
www.ualberta.ca/~ipy/

Posters

CANI PY IMS
Communications & Outreach Plan

Communication Themes
- The importance of the polar regions
- A holistic view of the poles and polar science
- The importance and excitement of science
- Attracting and empowering the next generation
- Canada as a polar country

ad hoc Communication & Outreach Committee
- Youth Science Foundation
- Science Centres, museums
- Libraries and Archives
- Northern Research Institutes
- National/local media
- Youth Steering Committee
- etc
Youth Steering Committee

Co-chairs: Amber Church & Tyler Kuhn

Proposed Activities:

- Outreach, Education and Mentorship
- International Youth Conference on IPY
- Build an IPY legacy
- Research on Youth issues in polar regions
- IGY interviews project
- Tales from the Wonder Zone project
Permitting, Licensing, IPR issues

- Overview Report on Research Licensing in Northern Canada
- Primer on Conducting Research in Canada's Northern Territories
- Primer on Conducting Research in the Northern Regions of Canada's Provinces

Forthcoming:
- Intellectual Property and Traditional Knowledge
- Environmental Assessment Process
- Researcher Mobility (immigration/security)
- Communicating IPY Research
IPY Draft Data Policy

- Respect and safeguard traditional knowledge and cultural heritage
- Timely, free and unrestricted exchange, as appropriate
- Quality control
- Metadata and ease of access
- Preservation of data in perpetuity
- Use existing national/international mechanisms (e.g. World Data Centres)
- Acknowledgement of original sources
International Polar Year
2007-2008

www.ualberta.ca/~ipy
www.ipy-api.ca