

Polarization and Polar Climate

**International Polar Year 2012 Conference: From Knowledge to Action;
Montreal, Quebec, Canada, 22–27 April 2012**

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As a follow-up to the 2007–2008 International Polar Year (IPY), more than 3000 international participants came together in April 2012 at a conference entitled “From Knowledge to Action.” The conference addressed a broad scope of topics beyond academic science to include challenges of globalization, climate change, and social and economic issues. Participants included researchers and others with expertise in multiple fields: policy and decision making, law, industry, nongovernmental organizations, circumpolar communities, and indigenous peoples. The challenge of translating academic and other forms of knowledge into societal benefits dominated the event.

Of particular note in that regard was the Perceptions of Arctic Change session. In light of ongoing physical and social changes noted during IPY, the Arctic can be considered an early indicator of global change, yet popular understanding of this information seems to be diminishing. Misperceptions and lack of application of polar science are of concern, an issue explored in depth during this session. Given the critical role that media and politics play in society’s perceptions of the north,

representatives from these areas were part of the session alongside climate and social scientists.

Changes in the Arctic will continue to be driven by anthropogenic sources farther south, as a result of higher energy consumption, population increases, and expanding economies. Resulting Arctic changes are some of the most rapid on the planet because of multiple feedback linkages among loss of sea ice, greening of coastal regions, oceans, and atmosphere. Scientific attribution of change is based on application of the scientific method: deduction, consistency of multiple observations, predictions, and comparing competing hypotheses.

Poor communication of climate change is often blamed on the lack of skills by scientists, as words (such as uncertainty, risk, regime, and model) can mean different things to different people. Yet the conclusion of the Perceptions of Arctic Change session—indeed, of the IPY 2012 Conference—was that failure to communicate the potential impacts of Arctic change is not a main issue. Rather, several media and social scientists pointed to a lack of receptivity and a cultural predisposition as roadblocks to broader understanding of potential risks and opportunities in the

Arctic and beyond. Facts are accepted primarily when they fit prior beliefs while threatening information is often dismissed. Further, climate change has become a political wedge issue.

The session and the conference ended on a positive note. There were recommendations for framing information so that it is more relevant while being nonthreatening to its intended audience. Another conclusion was that persistence of the message is important. The conference included emphasis on secondary education within and without the Arctic and highlighted the role of the Association of Polar Early Career Scientists. These young people will have to live with and respond to future polar changes.

Session abstracts are available at <http://www.ipy2012montreal.ca/program/schedule/tuesday1000.php> and <http://www.ipy2012montreal.ca/program/schedule/tuesday1330.php> (see parallel session 3.2.2 link). We thank the presenters at the Perceptions of Arctic Change session for their thought-provoking contributions. The session was organized by the Atmospheric and the Social and Human Working Groups of the International Arctic Science Committee.

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