



The Arctic

International Polar Year 2007-08

By Róisín Nash

Next year, 2007, will see the start of an International Polar Year (IPY), marking the 50th anniversary of the Geophysical Year (1957-58) and continuing a tradition that began in 1882 with the first International Polar Year. The IPY is an internationally coordinated campaign of scientific research focused on the polar regions – both Arctic and Antarctic. Scientists will initiate intensive short-term projects, expand existing polar research and develop infrastructure to support future polar research. Similar to the integration of institutes within MarBEF, the IPY integrates nations and undertakes projects that normally could not be achieved by any single nation (or institute, in the case of MarBEF) through a new level of integration and cooperative science. This research will incorporate multidisciplinary and interdisciplinary studies, including biological, ecological and social science elements.

Why choose the polar regions? The polar areas are unique in that they are both our climate archives and early warning systems. Dr David Carlson, IPY's programme director, said: "If you want to understand the global carbon cycle, the global water cycle, the global weather cycle, or global economics, it requires an understanding of polar regions." However, the poles are expensive places to visit because they are distant, cold and have few, if any, inhabitants. International cooperative programmes share the costs and maximise the number of coordinated scientific observations. The IPY is the most famous example of such a cooperative programme and it will mark a quantum leap in our understanding of these regions and their profound significance for the Earth's climate, ecosystems and societies.

As the upcoming IPY will be the first event of its kind in 50 years, it will capitalise on innovative modern technology to advance our knowledge of Arctic and Antarctic regions in ways that were not possible during previous IPYs. The IPY officially begins in March 2007 and will run until March 2009, allowing researchers the opportunity to work in both polar regions or to work summer and winter in one region.

IPY will have six overarching themes:-

- To determine the present environmental status of polar regions;
- To quantify and understand change in the polar regions;
- To advance our understanding of connections between the poles and the rest of the globe;
- To investigate the frontiers of science in the polar regions;
- To use the unique vantage point of the polar regions to investigate from the Earth's inner core, to the sun, and the cosmos beyond;
- To investigate the cultural, historical and social processes of circumpolar human societies.

International Polar Year 2007-2008 is expected to be the largest ever polar research programme, valued at €2.5-3 billion, and involving at least 30, but possibly as many as 50, countries and 20,000 or more people



The polar regions as seen from space.

from around the world, including many MarBEF member institutes and associate member institutes. It is hosted internationally by the International Council of Science (ICSU) and the World Meteorological Organisation (WMO), and has been endorsed by numerous international bodies, including the Arctic Council, MarBEF and the United Nations Environment Program.

IPY is organising several activities for the coming year, some of which are mentioned in our calendar of events inside the back cover. See also the international website www.ipy.org for more information on IPY and to access a database of the projects proposed. Once we enter into the International Polar Year we will be publishing a number of further articles on polar events and research projects where a number of MarBEF institutes are actively involved. IPY is also an opportunity to organise an exciting range of educational and outreach activities designed to excite and engage the public.



A polar bear emerges from its den.