The state of polar data management; the IPY experience

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The International Polar Year (IPY 2007-2008) was the world’s most diverse international science program. It greatly enhanced the exchange of ideas across nations and scientific disciplines. This sort of interdisciplinary exchange helped us to understand and address grand challenges such as rapid environmental change and its impact on society. The scientific results from IPY only now begin to emerge, but it is clear that deep understanding will require creative use of myriad data from many disciplines. Japan established a national committee for the IPY 2007-2008 in the Science Council of Japan in 2004. A total of 63 projects endorsed by the IPY/IPO (International Program Office) had been planned with Japanese participants. Many of the projects are still under serving as a coordinating platform for post-IPY activities. In the Science Meta-Data Base (SMDB) in the National Institute of Polar Research, Japan (NIPR), a total of 148 metadata sets were accumulated so far with regard to the IPY. Metadata relating to the above IPY endorsed projects, together with other Japanese original and international projects, have been compiled to the IPY Portal in the GCMD (Global Change Master Directory) in NASA (National Aeronautics and Space Administration). In the IPY Portal of GCMD, a total number of metadata descriptions (DIFs: Directory Interchange Format) is more than 90. In the Science Meta-Data Base in the National Institute of Polar Research, Japan (SMDB/NIPR), a total of 148 metadata sets were accumulated so far. The format of metadata is original one, but it includes the items listed in DIFs of AMD (Antarctic Master Directory). There are also links to the corresponding metadata in the AMD for each metadata of the SMDB/NIPR. The SCAR data and information management have worked strongly with the IPY community, and subsequently with the Polar Information Commons (PIC) to help establish the framework for long-term stewardship of polar data and information.

Keywords: International Polar Year, data management, national data center, Antarctic/Arctic Master Directory, SCAR/IASC, Polar Information Commons

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