

The State of Polar Data

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As results emerge from the International Polar Year (IPY), it is clear that deep understanding of the polar systems will require creative use of diverse data from many disciplines. Most IPY field programs have ended. They have produced a lot of data. Are those data available? Are they well documented for broad, interdisciplinary use and long-term preservation? Are they supported by robust and useful organizations and infrastructure? Have we enhanced interdisciplinary science and data sharing? Have we met the data goals of IPY? In short, what is the state of polar data?

We compile the experience of the IPY data management community to 1) recount the progress of IPY data management, 2) describe lessons learned from the process, 3) plan the final steps toward ensuring a complete and useful archive, and 4) recommend actions for data centers and IPY sponsors in order to maximize use of polar data in general and to sustain data over the long term. Following the IPY Data Policy and Strategy, we assess four broad areas that would be relevant to the data management of any large international project:

- Data sharing and publication
- Interoperability across systems, data, and standards
- Sustainable preservation and stewardship of diverse data
- Governance and conduct of the virtual organization that coordinates data access and stewardship around the globe.