Polar Data Management for Northern Science

Summary

Project Leader
LeDrew, Ellsworth

The progress of science towards interdisciplinary exchange and integration of information, such as in the ArcticNet Integrated Regional Impact Studies (IRISes), demonstrates the need for more efficient use of data resources using well-structured systems of data deposition and access. The central objective of ArcticNet's "Polar Data Management for Northern Science" is thus to facilitate exchange of information and data about the polar regions among researchers and other user groups, including northern communities and international programs. During Phase 1 of ArcticNet, members of Theme 2 initiated this data management project. ArcticNet then partnered with the Canadian Cryospheric Information Network (CCIN) at the University of Waterloo and the Department of Fisheries and Oceans Canada (DFO) to develop a database of metadata, the "meta-database" describing ArcticNet datasets. After several modifications and the joining of new partners such as the Canadian federal government program for International Polar Year (IPY), the Northern Contaminants Program (NCP), and Environment Canada, the ArcticNet meta-database, renamed the Polar Data Catalogue (PDC), was launched in July 2007. In 2010 the RADARSAT Polar Science Dataset was added to the collection, and in 2011 archiving and access to data files became functional. The Polar Data Catalogue is now Canada's primary on-line source for data and information on research in the polar regions. The scope of research covers a range of disciplines, from natural sciences to policy and health and social sciences. Research projects presented in the PDC are conducted under the auspices of a wide variety of programs, including ArcticNet, NCP, the Canadian IPY (2007-2008), the Circumpolar Biodiversity Monitoring Program (CBMP), the Beaufort Regional Environmental Assessment (BREA), and others. The Polar Data Management team is also working with other relevant projects (both national and international) toward integrated data management systems to ensure (1) preservation of polar metadata and datasets for the long term, (2) public accessibility of the metadata and datasets on the PDC in a timely and user-friendly format, and (3) responsive development of PDC data tools for use by various stakeholders, especially northern communities.

People

Network Investigators
LeDrew, Ellsworth - University of Waterloo
Vincent, Warwick - Université Laval

Collaborators & Research Associates
Barnard, Christine - ArcticNet Inc.
Braithwaite, Leah - Environment Canada - Canadian Ice Service
Crevier, Yves - Canadian Space Agency
Hik, David - University of Alberta
Nickels, Scot - Inuit Tapiriit Kanatami
Ouellet, Mathieu - Fisheries and Oceans Canada - Integrated Science Data Management
Pulsifer, Peter - University of Colorado
Scott, David J. - Natural Resources Canada - Geological Survey of Canada
Tomlinson, Scott - Aboriginal Affairs and Northern Development Canada - Northern Contaminants Program

PhD Students
Dong, Yunwei - University of Waterloo
Stasko, Ashley - University of Waterloo

Masters Students
Elliott, Claire - University of Waterloo
Pauly, Maren - University of Waterloo
Renken, Brittany - University of Waterloo

Undergraduate Students
Mahendramohan, Abhina - University of Waterloo
Pham, Martin - University of Waterloo

Technical Staff
Alix, Gabrielle - University of Waterloo
Friddell, David - University of Waterloo
Garneau, Marie-Ève - ArcticNet Inc.
Gombault, Colline - ArcticNet Inc.
Gurusamy, Kumari - University of Waterloo
Lauritzen, Frank - University of Waterloo
Reid, Garret - University of Waterloo

Project Staff
Friddell, Julie - University of Waterloo

Partners

Aboriginal Affairs and Northern Development Canada
Aboriginal Affairs and Northern Development Canada - BREA
Aboriginal Affairs and Northern Development Canada - Northern Contaminants Program
BREA/AANDC
Canadian High Arctic Research Station
Canadian Polar Commission
Canadian Space Agency
Centre d'études nordiques
Environment Canada - Canadian Wildlife Service - Northern Conservation Division
Environment Canada - Science and Technology Branch
Nunavut General Monitoring Plan
University of Waterloo

Publications

Articles Published in Refereed Publications

Friddell, J., LeDrew, E. and Vincent, W., 2013, The Polar Data Catalogue: Best Practices for Sharing and Archiving Canada's Polar Data, CODATA Data Science Journal, , Submitted

Friddell, J., LeDrew, E. and Vincent, W., 2014, The Polar Data Catalogue: Best Practices for Sharing and Archiving Canada's Polar Data, Data Science Journal, v.13, PDA1-PDA7, Published

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Huck, J., S. Farnel, S. Marks, and J. Friddell, 2012, Completing the Puzzle: Metadata Strategies for Access and Preservation in a Polar Data Repository, International Polar Year 2012 Conference, http://www.ipy2012montreal.ca/program/program.php, 1, Published

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