

## Nordicana D and CEN Data Policy

### 1. INTRODUCTION

Nordicana series D is a formatted, online data report series archived at CEN. It is produced only in electronic form and is freely and openly accessible to CEN researchers and to other users. Each issue is published in French and in English, and is indexed via an assigned digital object identifier (DOI). An issue may be updated, for example with new data, as a new version number, but will retain the same DOI. Each issue contains data sets and extensive metadata that explain the origin of the data, the format of the data, the history of updates via different version numbers, and the format that should be adopted to cite the data.

The Centre d'études nordiques (CEN) is a research centre involving three academic institutions, the Université Laval, the Université du Québec à Rimouski and the Centre Eau, Terre et Environnement of the Institut national de la recherche scientifique. CEN researchers also include professors from the Université du Québec à Trois-Rivières, Université de Sherbrooke, Université de Montréal, Université du Québec à Chicoutimi, Université du Québec à Montréal, McGill University and Cégep F-X Garneau. CEN brings together over 200 researchers, students, postdoctoral fellows and professionals from diverse disciplines (biology and microbiology, geography, geology, engineering, archeology, landscape management).

CEN's mission is to contribute to the sustainable development of northern regions by way of an improved understanding of environmental change. CEN researchers analyze the evolution of northern environments in the context of climate warming and accelerated socio-economic change and train highly qualified personnel in the analysis and management of cold region ecosystems and geosystems. In partnership with government, industry and northern communities, CEN plays a pivotal role in environmental stewardship and development of the circumpolar North.

The CEN Network yields a wealth of data and the demands for subsets of these data are increasing from CEN researchers and from external users. Nordicana D has been conceived to aid the management of these data sets, to ensure and maximize the exchange and accessibility of relevant data for the different stakeholders, and to provide a lasting legacy of CEN monitoring and research activities. Compliance with the Nordicana D and CEN Data Policy as described here is the responsibility of both data providers and data users.

### 2. OBJECTIVES

The purpose of the Nordicana D and CEN Data Policy is to facilitate exchange of information about the northern regions among researchers and other user groups including northern communities, local and governmental authorities and international programmes. Also, the Nordicana D and CEN Data Policy ensures that CEN is appropriately credited and acknowledged for the provision of data (see 6.3 Data Acknowledgement).

### 3. PRINCIPLES

The following principles will be adhered to in addressing the Nordicana D and CEN Data Policy objectives:

- Respect confidentiality requirements and researcher rights to publication.
- Recognize that human health and sociological studies will have specialised issues when it comes to data and privacy.
- Ensure that the databases are widely and easily accessible to a variety of users.
- Ensure the long term preservation of CEN and other relevant data sets.
- Use existing knowledge and infrastructure, wherever appropriate; i.e., ensure connectivity of data, but not duplication of systems.
- Encourage excellence in data collection, management and accessibility.

### 4. CEN DATA DEFINITION

CEN data are those data collected and generated by CEN scientists and collaborators, in full or in part. CEN researchers and collaborators are strongly encouraged to facilitate access and share their metadata and data.

### 5. HOSTING AND MANAGEMENT OF THE METADATA AND THE DATA

#### 5.1 Nordicana D

Specific requests for datasets, along with their metadata, are encouraged to be published in Nordicana series D. Nordicana is an ongoing printed report series at CEN. Nordicana D is a separate data report series produced only in electronic form and freely available to the client who made the request, CEN researchers and to any other user. Nordicana D is archived in the long term at Centre d'Études Nordiques, Université Laval, with the necessary back-up provisions.

#### 5.2 Polar Data Catalogue

CEN fosters the use of the Polar Data Catalogue, a database of metadata and data that describes, indexes and provides access to diverse data sets generated by Arctic and Antarctic researchers. The Polar Data Catalogue was developed by ArcticNet in partnership with the Canadian Cryospheric Information Network (CCIN), and has been adopted by the Canadian International Polar Year 2007-2008 as a long-term archive. It is in the public domain. All data reports published in Nordicana D will be described in the Polar Data Catalogue to ensure their full availability and dissemination. Moreover, the CEN supports the uploading of all CEN data in the Polar Data Catalogue to make them fully, freely and openly available within the shortest feasible timescale. Detailed information about the Polar Data Catalogue is available at [www.polardata.ca](http://www.polardata.ca).

Exceptions to this philosophy of full, free, and open access are (adapted from the Canadian IPY 2007-2008 Data Policy):

- where human subjects are involved, privacy and confidentiality must be protected. Access to personal information and human biological samples may be provided in accordance with applicable legislation, regulations, ethics approvals and policies;

- where local and traditional knowledge is concerned, rights of the knowledge holders shall not be compromised;
- where data release may cause harm, specific aspects of the data may need to be kept protected (for example, locations of nests of endangered birds or locations of sacred sites); and
- where pre-existing data are subject to access restrictions.

The International Council for Science (ICSU) 2004 defines “Full and open access” as equitable, non-discriminatory access to all data preferably free of cost, although some reasonable cost-recovery for distribution of the data is acceptable. The World Meteorological Organisation (WMO) Resolution 40 uses the term “Free and unrestricted” and defines this as a non-discriminatory and without charge. “Without charge”, in the context of this resolution, means a charge that is no more than the cost of reproduction and delivery and without charge for the data and products themselves.

Permanent archiving of the metadata and of the data uploaded in the Polar data Catalogue is ensured by the Canadian Cryospheric Information Network (CCIN) and by the Integrated Science Data Management (ISDM; formerly the Marine Environmental Data Service MEDS) of the Department of Fisheries and Oceans (DFO). Backups of the data will also be made and archived at different locations. Certain datasets will be housed at various locations and access will be subject to the rules of each institution.

## 6. DATA RESPONSIBILITY, OWNERSHIP AND ACKNOWLEDGEMENT

### 6.1 Responsibility of those holding data

The CEN urges its members to provide metadata and data sets that have benefitted from access to CEN resources. Also, the CEN members must acknowledge their affiliation to the CEN and their support of granting agencies and industries, where appropriate, in all presentations and publications of results of research.

### 6.2 Ownership and intellectual property

Ownership of Intellectual Property (IP) shall be determined by applicable Canadian law and the policies of the relevant Participating Institution(s). The Parties agree that the authority and responsibility for making decisions with regard to legal protection and commercialization of the IP shall rest with the owners of the IP. Where there are two or more owners of the IP, they shall designate an agent to act on their behalf.

### 6.3 Data Acknowledgement

To recognize the valuable role of data providers, users of CEN data must formally acknowledge data originators, contributors, and sources. The data published in Nordicana D are to be cited as a journal article in either French or English, with the exact version number (v. 1.0 or later), year range for the data, Nordicana series D volume number (D1 onwards) and DOI:

CEN, 2013. CEN 2013. Environmental data from northern Ellesmere Island, Nunavut, Canada, v. 1.0 (2002-2012). Nordicana D1, doi: 10.5885/44985SL-8F203FD3ACCD4138.

The data available in the Polar Data Catalogue must be cited following the guidelines of the International Polar Year Data and Information Service (<http://ipydis.org/data/citations.html>). In general, dataset citation should follow the author-date system, as seen for books. The citation should include the following information, if available:

- Author(s)
- Publication date
- Title
- Editor or compiler
- Publication place
- Publisher
- Distributor
- Distribution location
- Access date
- Data within a larger work

Citation example:

Gratton, Y., 2002, CASES 0202-Beaufort Sea CTD data. Canadian Cryospheric Information Network (CCIN). Metadata accessed 2009-10-13 at [www.polardata.ca](http://www.polardata.ca), CCIN reference number 513.

#### 6.4 Notification

The data user must notify the dataset contributor when any derivative work or publication based on or derived from the data set is distributed. This notification should include an explanation of how the data set was used to produce the derived work.

#### 6.5 Redistribution

Nordicana D issues may not be reproduced, stored in a retrieval system or retransmitted in any form or by any means without the written permission of CEN.

### 7. CONFIDENTIALITY

CEN data providers shall ensure that the appropriate agreements concerning the disclosure of Confidential Information and the transfer of biological and other materials are entered into prior to any disclosure of Confidential Information or transfer of material.

### 8. DISCLAIMER

While substantial efforts are made to ensure the accuracy of metadata and data sets, complete accuracy cannot be guaranteed. CEN metadata and datasets accessible in Nordicana D and in the Polar Data Catalogue are made available to you "as is" without warranties of any kind.

## 9. CONTACT INFORMATION

If you have any questions or concerns about the Nordicana D and CEN Data Policy, please contact:

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