DBO Data Parameter File and Archiving

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http://www.arctic.noaa.gov/dbo/

DBO Data Management
A broad perspective

- Strong international collaboration in a data policy for sharing and access
- International collaboration in data collection in 8 sampling transects
- DBO parameter file profile to inventory data parameters collected on transect lines, upper trophic level surveys, moorings, and satellites
- DBO data effort to facilitate data sharing and synthesis activities
- National and International distributed archive centers can rely on the DBO parameter file for exchange and access

The 2015 DBO Data Policy

Distributed Biological Observatory Data Policy

DBO DATA POLICY AND RELEASE GUIDELINES-Final Version (Feb. 20, 2015)

1. INTRODUCTION

The Distributed Biological Observatory (DBO) was established as an Arctic change detection array along a latitudinal gradient currently extending from the northern Bering Sea to the boundary between the Beaufort and Chukchi seas, near Point Barrow, Alaska. The current DBO regions may be modified or expanded as DBO objectives and requirements change. An international team of scientists and facilities are contributing to this unprecedented set of observations to be made for a decade or more. DBO sampling is focused on transects that cross areas of high productivity, biodiversity and rates of biological change. The Marine Working Group of the International Arctic Science Committee (IASC) has endorsed the DBO concept.

2. DEFINITION OF THE DBO DATA ARCHIVE

The "DBO distributed data archive" is defined as a set of distributed international data centers (e.g. Japan Agency for Marine-Earth Science and Technology (JAMSTEC), Korea Polar Research Institute (KOPRI), NCAR Earth Observing Laboratory (EOL)) with a commitment to long-term data stewardship practices (e.g. discovery and access), bringing together data from DBO sampling efforts and demonstrating the value added results from this sampling and coordinated shared-data approach to the investigation of biological responses in a rapidly changing Arctic marine ecosystem. The DBO EOL data archive (http://dbo.eol.ucar.edu) is the designated site for submission of metadata that meet the standard DBO metadata profile (hereafter referred to as the metadata profile) as shown in template form in Appendix A. This template may be linked from other sites that are supporting the DBO effort (e.g., the Alaska Ocean Observing System (AOOS) DBO workspace). The DBO can serve as a framework for international research coordination, specifically as being part of the Arctic Council Circumpolar Biodiversity Monitoring Program (CBMP) and is a recognized task of the pan-Arctic Sustaining Arctic Observing Networks (SAON) program, facilitated by the Arctic Council.

There is interest in making DBO data (defined and listed in Appendix B) available to researchers in a timely manner for analysis, and for the larger community once data are finalized. The principal steps in the flow of data from the researcher's lab to the DBO data archive have been organized into a process that encompasses: (1) the required completion of a standard DBO metadata profile to the DBO EOL archive, (2) the encouraged sharing of data among DBO members in a common, password-protected work space in the short-term (AOOS DBO workspace), and (3) the final submission of data to a national data archive. The DBO data flow requirement for a standard DBO metadata profile submission will be met by use of an interactive form on the DBO EOL website (supported by US National Science Foundation) that has been developed to ensure consistency of information cataloging data collections annually within the DBO data network.

The data centers that make up the "DBO distributed archive" will coordinate their data management activities including developing consistent metadata generation, curation, and

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- DBO has an agreed international data policy
- All participants fill out DBO parameter file of what core data type were collected at each station on each DBO line and/or within each DBO regional bounding box (interactive at http://dbo.eol.ucar.edu; **2017 transition to new CBL DBO project website for data parameter templates to submit as well as links to US Arctic Data Center, other national and international DBO partners data archives**
- Participants then submit data + metafile to own national archives, with agreement to share results on set DBO transect lines and within bounding boxes
- We hold an a DBO data workshop about every 18 months

Example: DBO Parameter File: Transects (SWL15): DBO1-5

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Collaborator: Diana Varella, University of Victoria, Victoria, Canada
Collaborator:
Project title: Collaborative Research: The Distributed Biological Observatory (DBO)-A Change Detection Array in the Pacific Arctic Region
Website https://arcticdata.io/ ; http://dbo.eol.ucar.edu/
URL data if not at EOL:

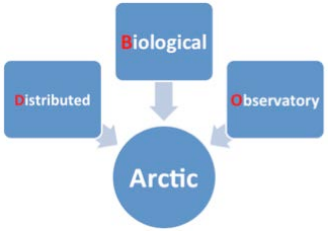
Cruise SWL15
Start Date 7/14/15 Start L 62.01, -175.21
End Date 7/21/15 End La 71.62, -157.16

Parameters		1	2	3	4	5	6	7	8	9	10					
DBO Stn Name	Alt. Cruise Stn Name	Cond =S	T	Depth	ADCP	Bottle chl	Bottle nuts	Sea ice phyto	Phyto	Zoop	Infauna	Sed grain size	Sed TOC/N	Sed Chl	Other: O-18	Other: CDOM (Karen Frey)
DBO1.1	SLIP-1	x	x	x	x	x	x		x		x	x	x	x	x	x
DBO1.2	SLIP-2	x	x	x	x	x	x		x		x	x	x	x	x	x
DBO1.3																
DBO1.4	SLIP-3	x	x	x	x	x	x		x		x	x	x	x	x	x
DBO1.5																
DBO1.6	SLIP-5	x	x	x	x	x	x		x		x	x	x	x	x	x
DBO1.7																
DBO1.8	SLIP-4	x	x	x	x	x	x		x		x	x	x	x	x	x
DBO1.9																
DBO1.10																
DBO2.1	UTBS-5	x	x	x	x	x	x		x		x	x	x	x	x	x
DBO2.2	UTBS-4	x	x	x	x	x	x		x		x	x	x	x	x	x
DBO2.3																

Thank you for your attention.

Questions and comments?

Thank you to all DBO collaborators, field and laboratory technicians over the years for the time series efforts. Financial support for the science provided by the US NSF, NOAA, BOEM, NASA, and ongoing international science partners in the Pacific Arctic Group.



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BOEM
Bureau of Ocean Energy Management