

An Introduction to the Biological and Chemical Oceanography Data Management Office

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Office Description

The Biological and Chemical Oceanography Data Management Office (BCO-DMO) was created to serve PIs funded by the NSF Biological and Chemical Oceanography Sections as a location where marine biogeochemical and ecological data and information developed in the course of scientific research can easily be disseminated, protected, and stored for short and intermediate time-frames. The BCO-DMO is a combination of the formerly independent data management offices for U.S. GLOBEC and U.S. JGOFS programs. **Our main objective is to support the scientific community through improved accessibility to ocean science data.**

Data Stewardship

The BCO-DMO manages the U.S. JGOFS and U.S. GLOBEC data collections, data and supporting information (metadata) from new programs, including initial programs associated with the OCB DMO (CARIACO, EDDIES, MedFlux, SOFeX, VERTIGO), and from individual scientific investigators and collaborative groups of investigators. The office will continue to make these data available via any standard Web browser. The JGOFS / GLOBEC distributed, object-oriented, relational data management system software, enhanced with OGC compliant Web Services, will be used to serve data and information to research investigators as well as the larger community.

Collaboration

- BCO-DMO staff members work closely with investigators from time of initial funding through data publication.
- Work with investigators to ensure data quality;
- Maintain an inventory of available data and program thesaurus based on a controlled vocabulary;
- Generate metadata records required by Federal agencies;
- Ensure submission of data to national data centers;
- Facilitate data synthesis by providing Web-based display tools;
- Facilitate interoperability among different data portals;
- Facilitate regional, national, and international data exchange.

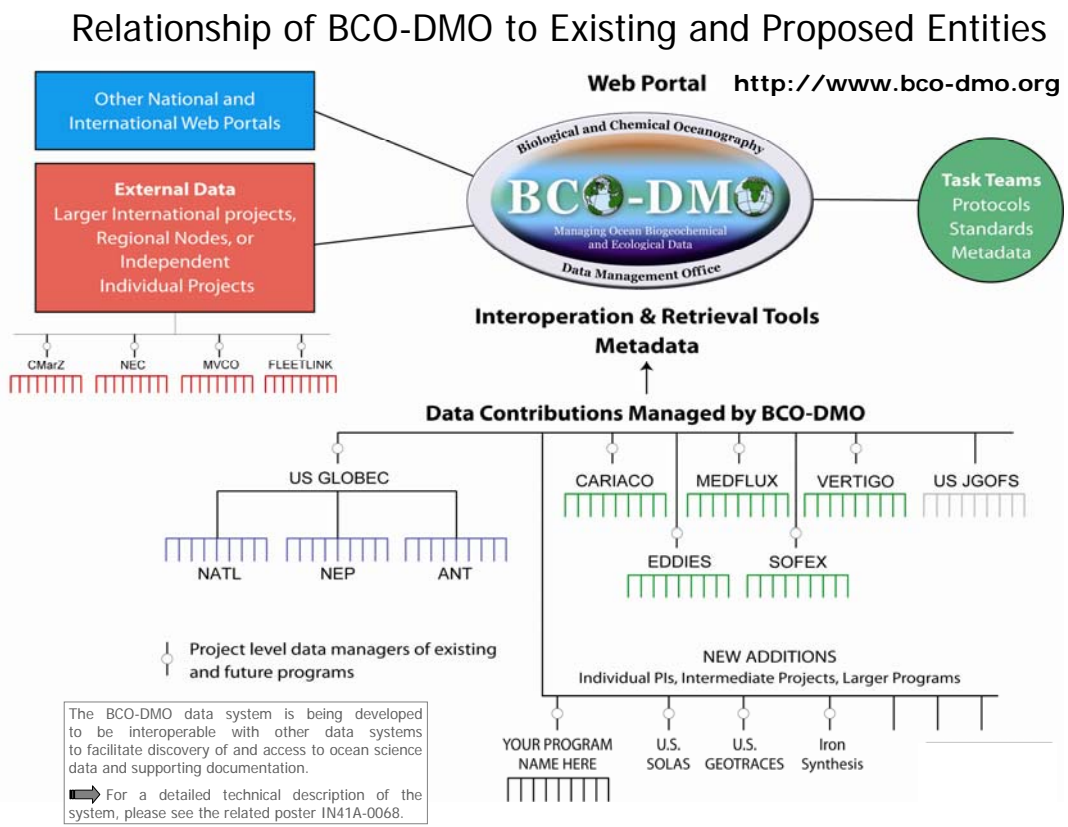
The Goal: Data System Interoperability

related entities ...

- National and International Web Portals
- WDC, OBIS
 - BODC, NODC
 - GCMD
 - NCAR, NCDC, CDIAC, NASA SeaBass

- External Data from Other Projects
- LTER, NACP, IPY
 - IMBER

- Protocols, Standards, Metadata
- MMI, QARTOD, UNOLS
 - OPeNDAP, THREDDS, WFS, WMS
 - FGDC, ISO 19115 & 19130, EML, Darwin Core, OGC
 - IOC, IODE/JCOMM, ICES, SeaDataNet



Metadata

- cruise report
 - event log
 - methodology documentation
- Supporting documentation is essential for efficient and accurate reuse of data.** For a multi-disciplinary sampling program conducted aboard a research vessel, a sampling event log and cruise report constitute an important part of the final results and greatly enhance the value of the published data. Documented sampling and analytical protocols, instrument descriptions, quality control and post-processing procedures complete the metadata records.

BCO-DMO Staff

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