

BIOLOGICAL AND CHEMICAL OCEANOGRAPHY DATA MANAGEMENT OFFICE

Cynthia Chandler

Biological and Chemical Oceanography Data Management Office
Woods Hole Oceanographic Institution

Co-authors: Danie Kinkade, Adam Shepherd, Peter Wiebe
Dicky Allison, Nancy Copley, David DuBois, Steve Gegg, David Glover,
Shannon Rauch

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NSF DATA STEWARDSHIP

- funded by US NSF OCE & PLR to provide data management support at no cost to researchers funded by those programs
- data and model results from hypothesis-driven marine ecosystem research projects
 - In situ observations (ships and other platforms), derived measurements, experimental and model results



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AVAILABLE RESOURCES

- **People** with decades of data mgt experience, domain knowledge, and community connections
- **Data** formats: CSV, TSV, Matlab, NetCDF, images, plus others
- NSF research dataset **metadata**
 - ISO 19115-2 (19139 compliant) replaces FGDC (XML)
 - OAI-PMH (ISO-19115-2), W3C DCAT, KML
 - SPARQL endpoint (lod.bco-dmo.org/sparql)
 - Drupal content negotiation (RDF flavors):
 - HTML/RDFa - <http://www.bco-dmo.org/dataset/3300>
 - JSON-LD - <http://www.bco-dmo.org/dataset/3300.json>
 - TTL - <http://www.bco-dmo.org/dataset/3300.ttl>
 - ISO - <http://www.bco-dmo.org/dataset/3300/iso>
 - Dublin Core, Linked Data API, OGC services (WMS, WFS)

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CURRENT CHALLENGES

- BCO-DMO is one office in the distributed network of repositories of research results
- text and map-based browse interfaces designed for human clients
- need to establish interoperable machine connections to other repositories (data, publications, conferences)
- provide context for BCO-DMO curated content (Semantic Web)
- automate procedures when possible (data ingest and harvest; QA testing)