Who are we?

BCO-DMO: Biological and Chemical Oceanography Data Management Office

- primarily funded by NSF
- submit data
- provides data access
- is part of WOODS HOLE OCEANOGRAPHIC INSTITUTION
- the public

BCO-DMO: Biological and Chemical Oceanography Data Management Office
What researchers do we work with?

**National Science Foundation**
- Biological Oceanography
- Chemical Oceanography
- Division of Polar Programs Antarctic Organisms and Ecosystems program.

**Gordon and Betty Moore**
- Marine Microbiology Initiative

*Ad-hoc, fee-based support*
# Data Types at BCO-DMO

<table>
<thead>
<tr>
<th>Biological and Chemical Oceanography Data Management Office</th>
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<tbody>
<tr>
<td>Abundance and Biomass</td>
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<tr>
<td>Algal Metabolites</td>
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<tr>
<td>Acoustic Backscatter</td>
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<tr>
<td>Carbonate System Parameters</td>
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<td>Current Velocity</td>
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<td>Chlorophyll and Accessory Pigments</td>
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<td>Dissolved and Particulate Nutrients</td>
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<td>Optical Properties</td>
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<td>‘Omics-related</td>
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<tr>
<td>Mixed Layer Depth</td>
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<tr>
<td>Primary Production</td>
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<tr>
<td>Potential Density</td>
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<tr>
<td>Taxon Group/Species</td>
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<tr>
<td>Trace Element Isotopes</td>
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<tr>
<td>Sedimentation Rate</td>
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<tr>
<td>Sound Velocity</td>
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<tr>
<td>Snow/Ice Cover and Thickness</td>
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<tr>
<td>Spectral Counts</td>
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<tr>
<td>Turbidity</td>
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<tr>
<td>Temperature, Salinity, Oxygen</td>
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<tr>
<td>Trap Type</td>
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<tr>
<td>Wave Height</td>
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<tr>
<td>Wind Direction and Speed</td>
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<td>Zenith Angle</td>
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Data submission process

1. Register your project
2. Prepare data files and metadata forms
3. Submit data and forms
4. Work with Data Manager to publish data
5. Finalize data for publication
Metadata
- ISO 19115-2
- Dublin Core
- GCMD DIF
- Frictionlessdata Data Package

Vocabularies
- Schema.org
- Dublin Core
- Dataset Catalog (DCAT)
- GeoSPARQL
- PROV-O
- Ocean Data Ontology

Services
- Google Dataset Search
- Linked Data
- Geospatial Search
- ERDDAP
- Data Packaging
- Custom APIs
- BCO-DMO Data @ Google
  - lod.bco-dmo.org/browse/
  - bco-dmo.org/search/dataset
  - erddap.bco-dmo.org
  - frictionlessdata.io
- C-DEBI, NSIDC, R2R, LTER

Submission Details

➢ Engage when you receive your funding
➢ Extensive metadata model
➢ No restrictions on data size
➢ Accepts model output (and inputs + code)
➢ Personalized support from a Data Manager
  Danie, Adam, Shannon, Matt, Amber, Tina, Karen & Nancy

Training available
➢ Data Licenses (CC BY 4.0)
➢ DOIs

Quick Start Guide (pdf)

bco-dmo.org
Learn more at the BCO-DMO booth!

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