BCO-DMO and GeoLink: Smart Data, Brilliant Research [1]

Submitted by cchandler on Wed, 2015-07-01 10:24   **Event:** Summer Meeting 2015 [2]

Abstract:
Established in late 2006, the Biological and Chemical Oceanography Office (BCO-DMO;
http://bco-dmo.org [3]) is funded by the NSF Division of Ocean Sciences (OCE) and Division of Polar
Programs (PLR) to improve data availability and discovery, and to enable subsequent data
integration and accurate use. BCO-DMO staff members work closely with investigators to ensure that
data generated during research funded by those NSF programs are documented, freely available,
and preserved long after the research is completed. Efforts at BCO-DMO focus on comprehensive
data management activities that span the full data life cycle from "proposal through preservation",
ultimately ensuring that data resulting from marine research projects are archived at the appropriate
US National Data Center.

In addition to managing and serving ocean biogeochemistry and marine ecosystem data from NSF
OCE and PLR funded research projects, BCO-DMO staff members work on several synergistic
research projects, the results of which will enhance BCO-DMO data discoverability, access and
interpretation. BCO-DMO is one of the partners in GeoLink (http://earthcube.org/group/geolink [4]),
an NSF funded EarthCube Building Block project. Using extensible GeoLink methodologies BCO-DMO
has incorporated Semantic Web technologies, including Linked Open Data and Ontology Design
Patterns, to enhance the BCO-DMO data system architecture to publish 'smart data'. Adding
semantic markup and publishing BCO-DMO content in standards-compliant ways facilitates
integration of complementary results from other repositories that curate geoscience research data.
BCO-DMO is one node in a comprehensive cyberinfrastructure that enables open, transparent,
networked, interoperable access to data and information.

Collaboration Area: Data Preservation [5]
Drupal Working Group [6]
Semantic Web [7]
Creative Common License: Creative Commons Attribution 3.0 License

Author(s):

Name: Cynthia Chandler [8]
Organization(s): Woods Hole
Oceanographic Institution [9]
Email: cchandler@whoi.edu [10]

Name: Adam Shepherd [11]
Organization(s): Woods Hole Oceanographic
Institution [9]
Email: ashepherd@whoi.edu [12]

Name: Peter H Wiebe [13]
Organization(s): Woods Hole Oceanographic
Institution [9]

Name: Danie Kinkade [14]
Organization(s): Woods Hole Oceanographic
Institution [9]
Email: dkinkade@whoi.edu [15]

Name: Molly D. Allison [16]
Organization(s): Woods Hole Oceanographic Institution [9]

Name: Robert Groman [17]

Name: Bob Arko [18]
Organization(s): Lamont-Doherty Earth Observatory [19]
Email: arko@ldeo.columbia.edu [20]

Name: Suzanne Carbotte [21]
Organization(s): Lamont-Doherty Earth Observatory [19]

Name: Kerstin Lehnert [22]
Organization(s): IEDA [23]
Email: lehnert@ldeo.columbia.edu [24]

Name: Douglas Fils [25]
Organization(s): Consortium for Ocean Leadership [26]
Email: dfils@oceanleadership.org [27]

Name: Lisa Raymond [28]
Organization(s): Woods Hole Oceanographic Institution [9]

Name: Audrey Mickle [29]
Organization(s): Woods Hole Oceanographic Institution [9]
Email: amickle@whoi.edu [30]

Name: Tom Narock [31]
Organization(s): University of Maryland Baltimore County [32]

Name: Pascal Hitzler [33]
Organization(s): Data Semantics Laboratory [34]
Email: pascal.hitzler@gmail.com [35]

Name: Michelle Cheatham [36]
Organization(s): Wright State University [37]

Name: Adila Krisnadhi [38]
Organization(s): Wright State University [37]

Name: Tim Finin [39]
Organization(s): University of Maryland Baltimore County [32]

Name: Mark P. Schildhauer [40]

Source URL: https://commons.esipfed.org/node/8154

Links

[1] https://commons.esipfed.org/node/8154
[2] https://commons.esipfed.org/2015SummerMeeting
[3] http://bco-dmo.org
[4] http://earthcube.org/group/geolink
[5] https://commons.esipfed.org/collaboration-area/data-preservation
[6] https://commons.esipfed.org/collaboration-area/drupal-working-group
[7] https://commons.esipfed.org/collaboration-area/semantic-web
[8] https://commons.esipfed.org/node/741
[9] https://commons.esipfed.org/taxonomy/term/391
[10] mailto:cchandler@whoi.edu
[11] https://commons.esipfed.org/node/745
[12] mailto:ashepherd@whoi.edu
[13] https://commons.esipfed.org/node/744
[14] https://commons.esipfed.org/node/2397
[15] mailto:dkinkade@whoi.edu
[16] https://commons.esipfed.org/node/743
[17] https://commons.esipfed.org/node/742
[18] https://commons.esipfed.org/node/2398
[19] https://commons.esipfed.org/taxonomy/term/1357
[20] mailto:arko@ldeo.columbia.edu
[21] https://commons.esipfed.org/node/2521
[22] https://commons.esipfed.org/node/1327
[23] https://commons.esipfed.org/taxonomy/term/703
[24] mailto:lehnert@ldeo.columbia.edu
[25] https://commons.esipfed.org/node/1291
[26] https://commons.esipfed.org/taxonomy/term/597
[27] mailto:dfils@oceanleadership.org
[28] https://commons.esipfed.org/node/2517
[29] https://commons.esipfed.org/node/8102
[30] mailto:amickle@whoi.edu
[31] https://commons.esipfed.org/node/293
[32] https://commons.esipfed.org/taxonomy/term/205
[33] https://commons.esipfed.org/node/2515
[34] https://commons.esipfed.org/taxonomy/term/2145
[35] mailto:pascal.hitzler@gmail.com
[36] https://commons.esipfed.org/node/2518
[37] https://commons.esipfed.org/taxonomy/term/1382
[38] https://commons.esipfed.org/node/2516
[39] https://commons.esipfed.org/node/2519
[40] https://commons.esipfed.org/node/1636