# CMSP Discovery Vocabularies Workshop

#### A Joint WHOI/USGS/NOAA Workshop



#### Agenda

#### Wed. Dec. I

- 12:00 Opening Lunch
- I:00 Introductions and Review of Meeting: Andy Maffei, WHOI
- 1:30 Overview of the National Ocean Policy, the Coastal and Marine Spatial Planning Framework and its Data Management Requirements: Betsy Nicholson & Tony Lavoie, NOAA/CSC
- 2:15 Coffee Break
- 2:45 Interoperable Data Catalogs and Discovery Vocabularies: Peter Fox, RPI
- 3:45 Overview of Key Resources and Issues Identified by Participants: Fran Lightsom, USGS
- 4:15 Review of Breakout Group Topics
- 5:00 Break
- 6:00 Reception and Dinner in Clark 507

#### Agenda

Thurs. Dec. 2Morning Breakout Groups8:30Continental Breakfast (provided)9:00Charge to Groups9:30Group Work Time (breaks taken as needed)11:00Report from Groups12:00Lunch (provided)

#### Afternoon Breakout Groups

- 1:30 Charge to Groups
- 2:00 Group Work Time (breaks taken as needed)
- 3:30 Report from Groups
- 5:00 Adjourn

Dinner (on your own)

#### Agenda

#### Fri. Dec. 3

- 8:30 Continental Breakfast (provided)
- 9:00 Synthesis Panel and Discussion: Recommendations for shared vocabularies, crosswalks and ontologies
- 9:45 Coffee Break
- 10:00 Synthesis Panel and Discussion: Next steps and future communication/coordination strategies
- II:00 Closing Plenary: Peter Fox, RPI
- 12:00 Adjourn



## Background

In response to the National Ocean Policy, all Federal agencies are required to participate in the process of coastal and marine spatial planning (CMSP).

A critical challenge will be populating data catalogs with appropriate metadata so that information assets can be discovered, evaluated for suitability, integrated with data provided by other agencies, and used by planning bodies, resource managers and stakeholders across the country.



## Purpose

To begin a dialogue for sharing best practices and metadata tools, so that USGS and NOAA can reduce the burden on scientific programs and offices providing information for CMSP.



### Goals

• To share standards for metadata content for data catalogs that will support the national process for coastal and marine spatial planning, including shared vocabularies;

• To catalogue ontologies and crosswalks that can be used to improve interoperability;

• To List tested tools for creating metadata for new and existing catalog services, and providing guidance for using these tools and services;

• To establish communication mechanisms for future consultation among workshop participants.

# CMSP Discovery Vocabularies Workshop

#### Results of Pre-Workshop Survey





# Survey Respondents

6 – USGS 2 – NOAA 2 – OBIS USA 6 – other

- 5 geology
- 3 biology
- 2-physical oceanography
- 6 unclear or general



## **Repositories Mentioned**

Geospatial OneStop (http://www.geodata.gov) (5) Global Change Master Directory (http://gcmd.nasa.gov/) (5) InfoBank (http://walrus.wr.usgs.gov/infobank/) (3) Data.Gov (http://www.data.gov). (2) USGS Publications Warehouse (http://pubs.usgs.gov/) (2) NBII Metadata Clearinghouse (http://metadata.nbii.gov/clearinghouse/) (2)

USGS Geoscience Data Catalog (http://geo-nsdi.er.usgs.gov/) (2) USGS Science Topics (http://www.usgs.gov/science/) (2) Marine Realms Information Bank (http://mrib.usgs.gov) (2) (14 repositories were mentioned once)



### **Tools Mentioned**

MP (4) TKME (3) Metavist (3) ArcCatalog metadata editor (3) PHP (2) XML (2) GeoNetwork (2) (18 tools were mentioned once)



### **Vocabularies** Mentioned

GCMD (8) USGS Thesaurus (5) MBIB/CCH (4) MMI-device, Others at MMI (3) GNIS (2) ISO 19115 keywords (2) NBII (2), CSA/NBII Biocomplexity Thesaurus,

**CERES NBII Thesaurus** 

ADL Feature Types (2) CF Terms (2)

(14 vocabularies were mentioned once)



### **Crosswalks Mentioned**

BODC/NERC Data Grid/SeaDatanet EPA Network Exchange ICAN ontology mappings Q2O NOAA FGDC/MARC21/Dublin Core SWEET to CF SWEET to GCMD (MMI website was mentioned 3 times)



### Metadata Standards in Use

FGDC (14) ISO 19xxx Family (8) GCMD DIF (5) CF Conventions (2) BGN DarwinCore Dublin Core EML EXIF ISO 14xxx Family MARC MODS



# Challenges: Cleared Up?

- What is the "National CMSP Framework"?
- Defining and prioritizing goals for metadata
- Thinking that groups have to migrate from what they are using to a common std (like people thought with data formats), i.e. achieving a service-based mediation via interlinguas



# Challenges: Not Us/Now

- Data and metadata quality/suitability
- Process management for creating (new, good, consistent, updated) metadata
- Management and financial support
- Technology for CMSP Information Management System



# Challenges: Ours or not?

- Infrastructure and technology for metadata registries, vocabularies, and crosswalks
- Metadata for purposes other than discovery
  Community of Practice, or some other system for achieving consensus and keeping up with change.



# Challenges: Here & now!

- Tradeoff: broad vs. particular
- Challenging themes: institutional provenance, marine gazetteer
- Finding tools, resources, standards
- Missing definitions, over-flexible standards
- Inconsistency or competition among standards



### Suggested Breakout Topics

What vocabulary (and crosswalks) can we use in (with) our metadata to describe...

- Biology topicsGeology topicsPlace Names
- Depth/elevation/coastline
  Institutional provenance
  Quality/suitability

...that will allow the data to be discovered for use in CMSP?



#### Draft Breakout Format

• Identify someone to take notes

- Identify obvious vocabulary choices
- Identify process for 'filling the gaps'