

**NSDI Cooperative Agreements Program
Metadata Training & Outreach Project**

Category 2 Agreement Number: 460110490 (NBII)

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Organization:

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Project Narrative

Training: A total of 4 “Introduction to Metadata” workshops were held, training 83 people in metadata production and/or the ability to train others to create metadata. These workshops were held throughout the United States including Palisades, NY, San Diego, CA, Arlington, VA, Denver, CO, and Seattle, WA. All were conducted in a computer training lab, with the exception of the San Diego workshop, which was held at the Organization of Fish and Wildlife Information Managers (OFWIM) conference.

Metadata training and outreach assistance

Workshop Location: Palisades, NY – 1 ½ days

<u>Participants</u>	<u>Organization</u>
3	Maryland Department of Natural Resources
1	NY Natural Heritage Program
1	Cornell Lab of Ornithology
1	Vermont Monitoring Cooperative – State of Vermont
2	Mountain Prairie Node, NBII
1	IABIN (Panama)
1	Water Center for The Humid Tropic for Latin America and The Caribbean (CATHALAC)
2	LaPorta & Associates / LDEO
2	National Wildlife Health Center (WI)
1	Data management group, LDEO
2	CIESIN
1	Marine GeoScience Data Management System
2	JGD Associates
1	NYC Department of Parks and Recreation

Workshop Location: San Diego, CA – 1 ½ days

<u>Participants</u>	<u>Organization</u>
3	Pacific States Marine Fisheries Service
1	NBII – Southern Appalachian Information Node
1	ID Dept of Environmental Quality
1	Nature Conservancy
1	MO Dept of Conservation

1	AZ Dept of Fish & Game
1	US Army Corps of Engineers
1	US Fish and Wildlife Service
1	WA Dept of Fish & Wildlife
1	Ecotrust
1	ID Power Co
1	WV Dept of Natural Resources
2	KY Dept of Natural Resources
1	ODNR, Division of Wildlife

Workshop Location: Arlington, VA – 1 ½ days

<u>Participants</u>	<u>Organization</u>
2	KY Natural Heritage Program
3	NatureServe - Arlington
1	NBII - International programs
1	TX Heritage Program (Texas Parks & Wildlife)
1	NBII – Southern Appalachian Information Node
1	WV Natural Heritage Program
1	CDC/CECON - GUATEMALA
1	US Department of Defense
1	NatureServe - Maine
1	PA Natural Heritage Program
1	USGS Biological Resources Discipline
1	USGS Alaska Science Center
1	NASA Goddard Space Flight Center
3	USGS-NBII Program Office
1	VA Division of Natural Heritage
1	Pennsylvania Game Commission
1	USGS – BRD - Leetown Science Center

Workshop Location: Denver, CO – 3 days

<u>Participants</u>	<u>Organization</u>
1	USFS Rocky Mountain Research Station
1	Merriam-Powell Center for Environmental Research
1	Colorado Dept of Natural Resources
2	NOAA/NOS
1	FWC- Fish/Wildlife Research Institute
1	USDA Forest Service
1	US Fish and Wildlife Service
1	EROS Data Center
3	Bureau of Indian Affairs

Workshop Location: Seattle, WA – 1 ½ days

<u>Participants</u>	<u>Organization</u>
5	US Army Corps of Engineers
1	NOAA Fisheries
1	California Department of Fish and Game
1	USGS NBII
1	USGS Alaska Science Center
1	NatureServe
1	Long Term Ecological Research Program

Strengths of Project: The training workshops are a great networking point for introducing participants to the ways in which the NBII can provide further assistance to programs that are just beginning their metadata programs. (ie: creation assistance, Clearinghouse, QA/QC, etc). Also see “Organizational Practices.” section below.

Weaknesses/Challenges of Project: It is a continual struggle to introduce software for metadata creation to participants in the workshops...there is no one tool that is all encompassing and addresses the needs of the audience. For example, ArcCatalog (ESRI product) is frequently used in organizations using GIS, yet the metadata is too basic to be satisfactory and does not address the profiles such as the Biological Data Profile. SMMS (Intergraph) has been increasingly dissatisfying due to technical glitches and restrictive price for many organizations. Other free tools exist, but the comfort level with metadata standard must be quite high, and most workshop participants are on the introductory level.

Organizational Practices Developed to Continue Metadata Creation: The NBII program strives to support metadata creation and dissemination. We have established an infrastructure for metadata that encourages organizations to use our support system to their advantage. Metadata creation assistance is readily available thru and NBII contract agreement with NASA's Global Change Master Directory, in which we have metadata creation assistance throughout the year for our partners. Additionally, quality control is a free and automatic feature of our metadata infrastructure, and records must pass through it prior to inclusion in our Clearinghouse principal node. Finally, the NBII Clearinghouse is a robust mechanism, and partners find making contributions to it though harvesting to be a relatively simple process. We are also very active in helping our new Clearinghouse partners become a part of the NSDI and GeoSpatial One Stop programs. All of these support features have allowed outside organizations the ability to build their metadata programs with minimal start up costs, thus encouraging a larger metadata network to develop.

Status of Metadata Service

Metadata is served through the NBII Clearinghouse, located at <http://mercury.ornl.gov/nbii/>. Only 2 web folders are harvested by GeoSpatial One Stop from the NBII: "Metadata Clearinghouse Principal Node", and the "BRD Bibliographic Metadata Node". Other partners on the NBII Clearinghouse are asked to register in GOS independently so as to prevent duplication of records from the same source. The number of records completed as a direct result of the metadata training workshops is not determinable, however, the NBII Metadata Clearinghouse has increased its records holdings by several thousand over the past year – many of those records have been completed or made available by participants in the workshops.

Next Steps

This project will continue in the future, as the NBII infrastructure is in place and metadata is considered a critical element to the mission of the program. The NBII metadata infrastructure includes a training program, robust Clearinghouse, quality control/quality assurance assistance, and a metadata creation assistance program. All are funded by the NBII with the exception of the training program. The NBII has been able to serve the metadata community by offering training due to the generosity of the FGDC CAP Grant program.

Feedback on Cooperative Agreements Program

The FGDC CAP Grant has been a very beneficial program to assist metadata development and progress. Having received these grants for several years has allowed the NBII to assist hundreds of people and organizations create metadata and post it to Clearinghouses, which is beneficial to the science community and other research and learning communities. I would like to see the FGDC host a post CAP Grant meeting in which those organizations that were awarded funding can present the results of their projects. By sharing successes and challenges, new partnerships could be formed, progress could be seen, and the energy already developed from the success of the projects could be extended to the future.