

NBII Portal Unveiled at Third All-Node Workshop

The University of California, Davis, was the site of the Third National Biological Information Infrastructure (NBII) <www.nbio.gov> All-Node Workshop. Held January 29-31, 2002, representatives from the NBII nodes as well as NBII friends from the broader community who have interests in the program attended this meeting to hear speakers examine the NBII's current status, its successes, as well as a variety of new developments.

Among the key speakers at the event was Mike Frame, NBII Technology R&D Director, who formally introduced the program's



Dr. Sam Luoma, Chief Scientist of the CALFED Bay-Delta Program and workshop keynoter, told attendees about his program's enormous data resources — and the considerable needs CALFED has associated with these data.

new portal service called My.NBII.Gov. Frame offered attendees an in-depth look at the

portal, saying that it takes the award-winning NBII to the next level.

“My.NBII.Gov unleashes the power of the Web by offering users a personal biological Internet knowledge portal,” Frame said. “Through a single Web-accessible interface, you can access the content you choose – for instance, Web pages, Word files, Portable Document Format (PDF) documents – as well as services of interest such as e-mail, electronic directories, or travel information. You can also collaborate with your colleagues in virtual community work areas. Color

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Nodes in the News

The creation of regional, thematic, and infrastructure NBII nodes has been a significant program development. These newsmaking nodes are interconnected entry points that, taken together, are forming the NBII. The nodes are being developed in coordination with various partners around the country. Access has devoted several recent issues to reporting on specific nodes. In this issue, we continue profiling the new NBII nodes.

NBII Pacific Northwest Information Node

As the source for all aspects of scientifically-based, natural resources management in the Pacific Northwest, sharing information across a wide audience becomes key in the development of the NBII Pacific Northwest Information Node (PNWIN) <http://pnwin.nbio.gov>. The node offers access to biophysical data, bibliographic summaries,

management principles, regulatory requirements for public and private lands, as well as user tools for decision making and planning across the region. Sharing a common base of scientific information in a value-neutral format facilitates reasoned debate and decision making, thereby reducing conflict and leading to productive outcomes.

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NBII and the International Association of Fish and Wildlife Agencies (IAFWA)

The NBII and the IAFWA have successfully completed the first six months of their cooperative partnership. The project was established to work on developing relationships between the NBII and state fish and wildlife management agencies. A significant part of the cooperative agreement has been conducting focus groups and planning meetings with the state fish and wildlife agencies.

The first of two required IAFWA/NBII focus groups was hosted by the Virginia Department of Game and Inland Fisheries with participants from the West Virginia Department of Natural Resources. On January 15, 2002, the Wisconsin Department of Natural Resources hosted an NBII focus group that included other Wisconsin state

government representatives and the GIS Coordinator from the Minnesota Department of Natural Resources.

Focus group participants have overwhelmingly indicated that they are looking at ways to improve their ability to share data. They feel that NBII partnerships can help them improve their data-sharing abilities. Participants also feel that they need a mechanism to quickly locate data sets, gray literature, and publications residing in other state agencies.

State fish and wildlife agencies represent an enormous potential customer and contributor base for the NBII. Almost all fish and wildlife resources in the United States are managed by state fish and wildlife agencies, including all wildlife on private land, Bureau of Land Management, and U.S. Forest

Service lands. Consequently, state fish and wildlife agencies collect vast amounts of natural resources data and, in many cases, those same agencies issue the permits required for others to collect fish and wildlife data in their states.

In upcoming months, the IAFWA/NBII program will continue to arrange meetings with NBII nodes and state fish and wildlife agencies. Likewise, the program will focus on discovering data sets and metadata records that can be added to the NBII. 

NBII Expands Partnerships With The Nature Conservancy and NatureServe

The NBII endeavors to work with nonprofit organizations to provide the best possible data, information, and tools in the fields of conservation, ecology, and biodiversity. Certainly two of the flagship organizations in these fields are The Nature Conservancy <<http://nature.org>> and NatureServe <<http://www.natureserve.org>>.

Since 1951, The Nature Conservancy has been working to preserve the diversity of life on earth by protecting areas of both land and water. To accomplish its goals, the Conservancy requires vast science and information resources, providing a natural reason to collaborate with the NBII.

NatureServe was recently established to continue and extend the Conservancy's original commitment to produce scientific

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Be sure to check out Access on the Web at <<http://www.nbio.gov/about/pubs/news>>.

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Nodes in the News
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PNWIN provides a focal point for information exchange, communication, and decision support for forest resources management. The node focuses on three critical components:

(1) key data sets relevant to the scientifically-based management of forest resources;



Photo of *Conocephalum conicum*, from the cryptogam database.

(2) bibliographies, regulatory information, and other links about the management of forest resources in the Pacific Northwest; and

(3) user tools (e.g., decision support systems and models) that facilitate decision making and planning by forest resource managers.

This year, the node developers expect to have online several of these key data sets. These include:

- A database of moss, lichen, and liverworts from Olympic National Park, WA. Cryptogams are a critical component of forests, and indicators of forest health. This database will provide data on species occurrence, abundance, geographical and elevational distribution (displayed graphically), macro and microhabitat requirements and other data for nearly 1000 lichens, mosses, and liverworts.

- A study from the Bureau of Land Management on forest density to determine if specific management

practices can improve habitat and increase timber production.

- A high elevation tree-ring study that provides information about climatic change in the Pacific Northwest.

In addition, significant publications such as the Northwest Forest Plan and its associated documents will be available through PNWIN. The node also provides access to the Landscape Management System and Ecosystem Management Decision Support tools, which enable managers to evaluate particular management actions and their effects on forests.

Partners supporting the node include the U.S. Geological Survey (USGS) Forest and Rangeland Ecosystem Science Center in Corvallis, OR; the University of Washington in Seattle, WA; the USDA Forest Service Pacific Northwest Research Station in

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NBII Expands Partnerships...
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information through natural heritage programs and conservation data centers. NatureServe's mission – *to develop, manage, and distribute authoritative information critical to the conservation of the world's biological diversity* – is so relevant to the NBII's own mission that collaborative efforts seem inevitable.

The NBII and these two highly respected and effective organizations have recently launched several cooperative projects and are currently exploring others.

First, the NBII is working with ConserveOnline (the Conservancy's online public library of conservation tools, techniques, and experiences) to share knowledge of the utility of various Web tools and library methodologies. ConserveOnline is

currently launching a new wing of its library aimed at private forest land owners.

Second, elsewhere at the Conservancy, representatives of the geospatial technology team participated in and presented at the NBII's recent geospatial summit. The point of the summit was to understand major issues with the display and analysis of geographic data over the Internet.

Third, both The Nature Conservancy and NatureServe are collaborating with the NBII to enhance commercial and custom software capabilities for providing complex biological and geographic data on the Web. The NatureServe Explorer Web site, for instance, provides public access to

conservation information on more than 50,000 species and ecological communities. Plans are in place to enhance the level of geographic data presented on this site.

Finally, the NBII and NatureServe staff have also been communicating on how to assist one another in developing decision-support systems that will help resource managers make wise decisions regarding biodiversity and conservation.

To advance NatureServe's contribution to the NBII, the two organizations recently signed a cooperative agreement that will support a new NatureServe position devoted to expanding the organization's Web offerings and acting as a liaison with the NBII. 

*NBII Portal Unveiled...
(continued from page 1)*

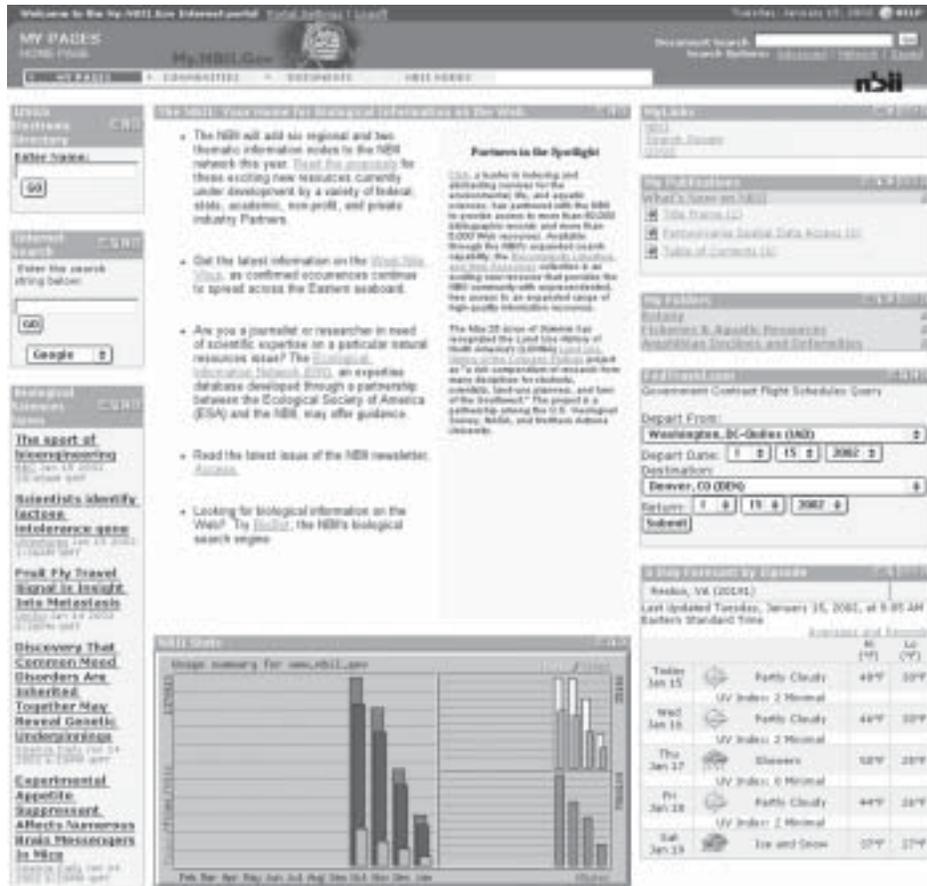
schemes and page layouts can be customized to your preferences. In short, this new Internet knowledge portal lets you fashion a dynamic, one-stop shop tailored to your specific interests, needs, and tastes.”

The NBII is a Web-based program coordinated by the U.S. Geological Survey (USGS) that provides access to data and information on the nation’s plants and animals. The NBII is also the U.S. node for the Global Biodiversity Information Facility (GBIF) <www.gbif.org>, an interoperable network of biodiversity databases and information technology tools that will enable users to navigate and put to use the world’s vast quantities of biodiversity information. A portal is a single point of entry to the Web that offers easy access to information on many topics and from many sources. Portals help users save time by identifying the sites and content more likely to be relevant to their interests.

My.NBII.Gov was developed to provide high-level user functionalities to assist resource managers, scientists, educators, and the general public in answering questions related to the management, use, or conservation of the nation’s biological resources, as well as additional topics attuned to their individual interests.

My.NBII.Gov can be configured to access, for instance:

- E-mail
- Travel information
- News feeds
- Reference aids
- Corporate systems (for example, financial, personnel, or project management)
- Status reports
- Weather reports
- Your favorite Web sites.



Through the MyLinks gadget, you can add your favorite Web sites; through the MyFolders gadget, you can add specific portal folders of interest. Gadgets are “services” or applications that can assist you in your everyday activities. They include e-mail, travel information, news feeds, reference aids, weather reports, and more. You can search for all available documents – whether they are MS Word, PowerPoint, Adobe PDF, or HTML – via the Document Search box.

The “Communities” tab at the portal is your entrance to My.NBII.Gov Communities – virtual work areas where NBII partners and staff can collaborate online. Communities are a great way to organize a project, discuss issues, or just disseminate information. Community access is controlled by

the community manager; as a result, not all portal users will have access to all Communities.

My.NBII.Gov is available to all NBII staff and node partners. As additional licenses are purchased, a broader audience will gain access to the portal. To enter My.NBII.Gov, point your Web browser to My.NBII.Gov. At the Portal Login menu, select either USGS employees or non-USGS users. USGS staff type in their Lotus Notes user name and password. Non-USGS users create an account via the Create Account button and then log in to the portal.

If you have any questions about My.NBII.Gov, either comment via the “Contact Us” button, or get in touch with Mike Frame (phone 703/648-4164, e-mail <mike_frame@usgs.gov>).

Seattle, WA; the Northwest Alliance for Computational Science and Engineering at Oregon State University in Corvallis, OR; and the Regional Ecosystem Office in Portland, OR. Next year, the Northwest Habitat Institute, a non-profit organization based in Corvallis, OR, becomes a significant collaborator with data served online

for the first time from the publication *Wildlife Habitat Relationships in Oregon and Washington*.

Each partner brings specific expertise to the node in areas such as node development; data and information content; Web-enabling of complex data sets and geographic data; and network and decision-support tools applied to forest

resource management.

For more information about this node, contact: David Peterson, 206/543-1587, <wild@u.washington.edu>; Robert Norheim, 206/543-9138, <norheim@u.washington.edu>; Ella Elman, 206/543-9138, <eelman@u.washington.edu>; or Jennifer Gaines, 303/202-4260, <jennifer_gaines@usgs.gov>.

NBII California Information Node

From the deserts to the Redwood forests, California encompasses the most diverse biological region in the West. Home to more than 33 million residents, the state faces many biological issues that affect the landscape, wildlife, and people. Sharing and integrating information and data holdings from multiple institutions across the region can help address these challenges. The California Information Node (CAIN) – currently in development – plans to demonstrate solutions for data discovery, exchange, and interoperability for data sets critical to California's environmental decision-making process.

This year, the node focuses on two major components: technology and content. Invasive species was selected as the pilot theme – their identification, biology, mechanisms of spread and control, and their current impacts and locations – to bring together the data sources and community involved in this critical issue in California. The technology developed by this effort will be prototyped and tested in the context of invasive species, but the strategy is intended to be broadly applicable to biodiversity data sets. The node developers expect to review and refine its application to information on declining pollinators and migratory riparian birds in subsequent years.

One of the early goals is to create a Web environment that will

enable users to contribute and search for information by several categories including organizations, projects, experts, and data. These Internet tools will allow interoperability between data sources such as CalFlora, the weed management group at the California Department of Food and Agriculture, and the USGS Southwest Exotic Mapping Program. An invasive species vocabulary, created from an extensive bibliography collection, provides better documentation and search results. The NBII program anticipates these tools will be used across the network to create an extensive collection of invasive species information.

As part of building the NBII network, CAIN collaborates with the Pacific Basin Information Node on the invasives species issue. The two nodes are cooperating on the development of standardized fact sheets that provide users with basic biological data (e.g., common name, image, habitat description, and mode of dispersal) from multiple sources using eXtensible Markup Language (XML). Eventually, this project will expand to facilitate exchange of information about treatments, history of invasions, and geographic information to address two questions: 1) What's here that needs to be controlled? and 2) What's coming that is going to be a problem?



Mt. Shasta, California

The lead partner in the effort is the University of California, Davis (UCD), Information Center for the Environment. Other research and development partners include the California Resource Agency's California Environmental Resources and Evaluation System Program; CalFED Bay Delta Program; California Department of Food and Agriculture; USGS Colorado Plateau Field Station; California Exotic Pest Plant Council; UCD Center for Spatial Technologies and Remote Sensing; and other NBII regional nodes.

You can find out more about CAIN at <<http://cain.nbii.gov>>.

For more information on this node, contact Jim Quinn, UCD, 530/752-8027, <jfquinn@ucdavis.edu>; Deanne DiPietro, 530/752-9381, <deanne@ucdavis.edu>; Allan Hollander, 530/752-9381, <adh@rachel.des.ucdavis.edu>; or Jennifer Gaines, USGS Center for Biological Information, 303/202-4260, <jennifer_gaines@usgs.gov>. 

IABIN Council Meeting, I3N Workshop Held in Miami

National Focal Points and other representatives of Inter-American Biodiversity Information Network (IABIN) participants met in Miami, FL, in January for the second meeting of the IABIN Council. Convening for the first time in two years, the Council reviewed the work since its first meeting in December 1999, and discussed plans for the next 1-2 years.

Douglas Graham, World Bank representative, announced at the meeting that IABIN's proposal to the Global Environment Fund (GEF) had been "technically cleared," giving IABIN a place in line for GEF funds when they become available later this year. The Organization of American States (OAS), which will serve as the Executing Agency for these funds, presented a draft plan to the Council outlining how OAS intends to implement the project.

The Council also finalized wording for a Memorandum of Cooperation with the Clearing-House Mechanism of the Convention on Biological Diversity (CBD), further defining the collaboration between these two multi-national initiatives.

Peru, Antigua, Barbuda, and the Global Biodiversity Information Facility (GBIF) were elected to the IABIN Executive Committee (IEC). The IEC is empowered to act on behalf of the entire Council between Council meetings.

Leads from 12 IABIN countries, plus many of the Council members and guests, convened on the day following the Council meeting

for a workshop on the IABIN Invasives Information Network (I3N) Project. Country leads gave presentations on their project plans. The I3N Cataloguer, a software tool developed by the University of California, Davis, to support the input of the project data, was demonstrated and distributed to the leads.

Information on both the Council Meeting and the I3N Workshop is available on the U.S. IABIN Web site <www.iabin-us.org>.

Other International Initiatives

Jim Edwards, National Science Foundation, was selected as Executive Secretary of the GBIF Secretariat. Additional Secretariat staff are being selected in early 2002. The Fourth Governing Board meeting of GBIF <www.gbif.org> will convene in Canberra, Australia, in March 2002.

The North American

Biodiversity Information Network is developing a portal to provide a place for North American biodiversity initiatives to interconnect. Beginning with programs of the Commission on Environmental Cooperation <www.cec.org> and its partners, the portal will link with UNEP, NatureServe, Canada's National Atlas, the NBII, and other relevant resources. Portal work has begun on three study cases: grasslands, marine protected areas, and the Yellowstone to Yukon Initiative.

Invited experts from around the world participated in a February meeting in Montreal to assist the Clearing-House Mechanism <www.biodiv.org> in identifying possible formats, protocols, and standards for the improved exchange of biodiversity-related data, information, and knowledge. The conclusions of the informal meeting, convened by the CBD Secretariat, will be submitted to the sixth meeting of the Conference of the Parties, to be held in The Hague in April 2002.

Andrea Grosse (left) and Barbara Bauldock of the NBII National Program Office relax during a break at the Third NBII All-Node Workshop, which was held in Davis, CA.



Adding Decision Support Systems to the Mix – A Pilot Project

The NBII serves as a national collective of information and scientific service technologies that can provide wise-use environmental and ecological options to local community stakeholders. The NBII does this through its distributed hub and spoke structure of regional and thematic nodes forged through partnerships with federal, state, local, academic, and private organizations that constitute this virtual information repository and delivery system.

Recently, there has been a call by communities and their leaders to provide a means – incorporating broad community involvement – to help make difficult decisions about a balanced quality of life. The NBII has and is working to make available tools that can allow communities to weigh and visualize options. These tools, called decision support systems (DSS) <<http://biology.usgs.gov/cbi/informatics/dss>>, are based on the integration of scientific data sets and associated models, computational inference engines, and geographic information systems (GIS). The purpose is to inform the decision-making process through access to the best available scientific data delivered in graphic displays that can quickly reiterate “what-if” options.

To be effective, such tools require a point of delivery within the community. Relevant literature and some experimentation suggest that communities benefit most if there can be a central physical site for gathering and collaborative decision weighing – a town hall setting, if you will. Such a location would need to understand how to support information delivery, be technologically enabled, and be open to all interested constituents. Most communities already have such a presence in the guise of their local

The NBII has and is working to make available tools that can allow communities to weigh and visualize options.

library, either a public or academic library, which serves as an information center for its residents.

Staff at the USGS Center for Biological Informatics (CBI), an arm of the NBII program, have proposed a pilot project to develop skills and resources related to GIS and DSS in community libraries, thereby promoting the wide availability and application of these unique information resources to the resolution of community issues related to ecology. The difficulty in implementing such a project is

finding a location in which there is an appropriate and critical problem, the necessary data and models applicable to the problem, and a commitment from community stakeholders. CBI staff are working with representatives of Colorado universities, both libraries and science departments, to identify such a site.

In the near future, CBI staff hope that they will be able to report the implementation of a DSS community pilot project in Colorado. The outcome will be to demonstrate the usefulness of the NBII to local communities by addressing their need for participative decision making that leverages existing factual information; recognizes community values; displays visual iteration of various scenarios for examination and discussion; and provides a record of the process for communication and future assessment. 

Upcoming Events of NBII Interest

EUSIDIC (European Association of Information Services) Spring Meeting 2002. “e-Content: Divide or Rule,” Paris, France.	March 11-12
Public Library Association National Conference, Phoenix, AZ.	March 12-16
Computers in Libraries 2002, Washington, DC.	March 13-15
Internet Librarian International 2002, London, England.	March 18-20
83 rd Annual Meeting of the American Institute of Biological Sciences (AIBS), Arlington, VA.	March 22-24
National Science Teachers Association (NSTA), San Diego, CA.	March 27-30
DTIC’s 28 th Annual Users Conference, Arlington, VA.	April 15-18

NBII Metadata Training Update

Train the Metadata Trainer Returns

The NBII is reprising its lively workshop favorite – Train the Metadata Trainer. This time the trainers are Lynda Wayne, Federal Geographic Data Committee’s (FGDC) Metadata Education Coordinator, and Sharon Shin, NBII’s National Metadata Coordinator. The host site for the workshop is the USGS Center for Biological Informatics in Denver, CO.

The workshop invites metadata developers/creators to share their metadata knowledge and venture into the realm of training. It covers techniques for metadata training, metadata training module development and presentation, and training logistics. The metadata modules are designed to present one

metadata topic via experiential and interactive learning. The resultant modules are presented to the group and are videotaped for the participants’ subsequent self-critique. Sidebar training on the Biological Data Profile, Shoreline Profile, and a brief look at the international standard (International Standards Organization/ISO) will be included. This workshop, funded by an FGDC Cooperative Agreements Grant, hosts up to 12 participants from local, state, and federal government agencies and offers travel stipends to those in need.

Denver’s unpredictable spring weather welcomes enthusiastic and energetic trainers March 27-29, 2002, for three full days of learning and exchange at the Denver Federal Center, Lakewood, CO.

For registration information, contact Sharon Shin at <sharon_shin@usgs.gov> with “Train the Trainer” on the subject line.

Training Schedule

For the latest information regarding location and dates of metadata training classes, just check <<http://www.nbii.gov/datainfo/metadata/training/calendar.html>> or contact Sharon Shin at <sharon_shin@usgs.gov>, 303/202-2430.

April 8-9

Workshop with open lab on day 2, New Mexico State, University – Geography Department, Las Cruces, NM.



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