NBII Mountain Prairie Information Node

The Mountain Prairie Information Node will provide access to scientific information about biological and other natural resources in the region.

Background

The National Biological Information Infrastructure (NBII) <www.nbii.gov> is an electronic information network that provides access to biological data and information on our nation's plants, animals, and ecosystems. Data and information maintained by federal, state, and local government agencies; non-government organizations; and private-sector organizations are linked through the NBII gateway and made accessible to a variety of audiences including researchers, natural resource managers, decision-makers, educators, students, and other private citizens. Implementation of the NBII is being accomplished through the development of nodes that serve as interconnected entry points to the NBII and the information held by partners. These nodes function as fully digital, distributed, and interactive systems that focus on developing, acquiring, and managing content on a defined subject area (thematic nodes) or a geographic region (regional nodes). One of the regional nodes being developed is the Mountain Prairie Information Node (MPIN), which recently changed its name from the Northern Rockies Information Node to reflect MPIN's broader geographic area and regional issues.

Node Focus

MPIN focuses on a six state area from the Rocky Mountains east to the Northern Plains, including the states of Montana, Wyoming, North Dakota, South Dakota, Nebraska, and Kansas. The node is being developed as a joint venture of Montana State University, the U.S. Geological Survey (USGS) Northern Rocky Mountain Science Center, USGS Northern Prairie Wildlife Research Center, and North Dakota State University.

The mission of MPIN is to contribute to the understanding and management of biological resources in the Mountain Prairie region by providing ready access to scientific data and metadata, authoritative information about biological resource management initiatives, interactive mapping, modeling and other Web-based tools to enable discovery, and educational materials. The node will complement other efforts by agencies and institutions to serve regional information through an integrated system.

To achieve these aims, MPIN will:

- Develop partnerships with agencies and institutions that generate and maintain data, and will work with them to make those data available through the MPIN Web site;
- Provide a clearinghouse function to enable users to locate information on natural resources of the region, wherever it is housed;
- Develop data sets, educational materials, and Web-based tools to meet partner and client needs; and
- Enable access to information spanning jurisdictional boundaries.

Improving Access to Information

Scientific studies result in large amounts of data, but often they are buried in subject-specific journals that can be difficult to access. At present, no central site provides access to spatial, geological, ecological, and water-related data and information in this region. MPIN is being developed as an accessible, distributed system with links to a wide range of scientific information resources. Among them are the University of Wyoming's Spatial Data and Visualization Center, the Montana State Library's Natural Resource Information System, and the USGS Northern Prairie Wildlife Research Center biodiversity information. Each of these Web sites serves spatial data but has different geographic extents and purposes. MPIN emphasizes decision support

for management of natural resources using data integrated across scientific disciplines.

From Data to Knowledge

Data have little value on their own to resource managers, scientists, students, and the public. To be more useful, scientific data and information must be transformed into knowledge by processing, analysis, modeling, and visualization.

MPIN's Web site was newly released in 2004. Initially, the node concentrated on the development of selected data sets and Web-based tools that addressed readily identifiable needs for natural resource management. These included regional climate data, keys to diverse sets of data related to the Greater Yellowstone Area, and digital maps that provide a spatial context for the data.

The node is currently expanding beyond the Northern Rockies to incorporate data sets and tools available in the prairie region. In the future, the node will increase the utility of both historical and newly collected data, and will provide decision support tools to address specific management and science needs of partners and clients.

Who Will Benefit?

The node is an information resource and virtual meeting place that will prompt users to work toward solutions to resource management challenges throughout the Mountain Prairie region. Academic institutions, non-governmental organizations, and government agencies all conduct scientific investigations that are relevant to the management of natural resources on these lands. MPIN provides a place for collaboration between these groups and state and federal natural resource agencies, county governments, non-federal entities, other universities in the region, and natural resource-based private industries. Ultimately, the people of the Mountain Prairie states will benefit from the data, models, and educational tools provided through the node concerning natural resources in the region.

For More Information

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