NBII Southwest Information Node

The NBII Southwest Information Node will create a Web-access gateway to biological information for the Southwest region.

Santa Maria River, Arizona

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 Southwest Information Node.

Jemez Mountains, New Mexico

Issue

In the Southwest, federal resource agencies, environmental organizations, corporations, and the public need access to critical biological information to more effectively address the conflicting demands on natural resources. When fully implemented, the new NBII Southwest Information Node will provide access to hundreds of biological databases, and will host a suite of information tools tailored to address the complex environmental issues of the Southwest.

These tools will let the users browse, model, map, simulate, forecast, interpret, and visualize biological and environmental conditions and processes, and will address questions such as:

- What will be the impacts of land use decisions on habitat for threatened and endangered species?
- What impacts on water supplies are likely at current rates of urbanization?

Desert tortoise (Gopherus agassizii)

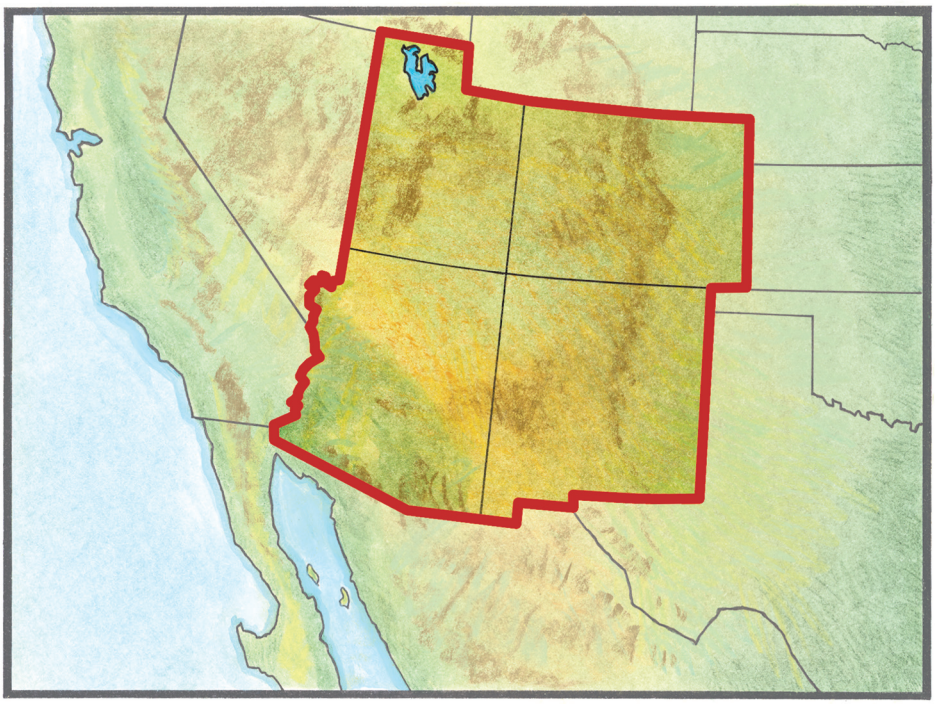
- How will water-use scenarios affect natural resource decision-making by 2020?
- Where are lands most at risk for wildland fire, or for invasions of exotic species?

Major Partnership and Customer Opportunities

Initially, the NBII Southwest Information Node will be established and supported through a unique partnership between the University of New Mexico, New Mexico State University, the U.S. Geological Survey (USGS) Fort Collins Science Center, and the USGS Center for Biological Informatics. These partners are leaders in blending science and technology, having earned international reputations for scientific achievement and technical assistance. Offering to facilitate the use of shared data sets and tools, the Southwest Information Node will partner with coalitions of agencies such as the Southwest Strategy and individual organizations such as universities, the National Park Service, U.S. Fish & Wildlife Service, Bureau of Land Management, U.S. Forest Service, Bureau of Reclamation, U.S. Department of Defense, State Heritage Programs, state and local governments, Tribal governments, and conservation organizations throughout the region.

Objectives and New Products

The NBII Southwest Information Node will create a Web-access gateway to biological information for the Southwest region. Start-up funds in 2001 established the node, initially serving limited data sets for New Mexico. When fully implemented, the Southwest Information Node will cover Arizona, New Mexico, Colorado and Utah, and will maintain links to cover arid zones of adjacent states. The expanded node will be state-of-the-art, designed to serve relevant data and provide for custom analyses tools.



Geographic coverage of the NBII Southwest Information Node

Node Features

Although a prime focus of the NBII is on biological data, the Southwest Information Node will be strengthened by data on geology, hydrology, geography and the human dimension.

At the outset, node design goes beyond simply "serving" data. This node will link data to models, synthesize large data sets, use supercomputers for complex simulations, establish common data sets for multi-agency projects, and network scientists and managers who rely on biological information. The establishment of the Southwest Information Node exemplifies NBII's role as an international leader in the dissemination of scientific information.

Colorado National Monument, Colorado

For More Information

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