Southwest Information Node

NBII Southwest Information Node

The NBII Southwest Information Node will create a Web-access gateway to biological information for the Southwest 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;
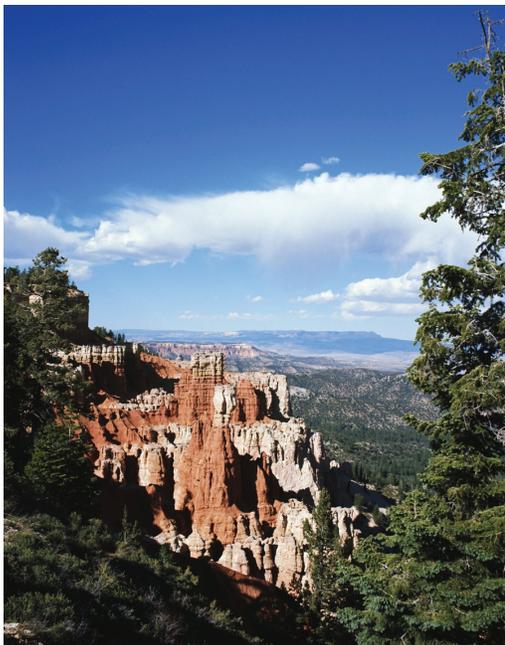
Agua Canyon, Utah

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 (SWIN).

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, SWIN 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,

Organ Pipe Cactus National Monument, Arizona

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?
- 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

Offering to facilitate the use of shared data sets and tools, SWIN is partnering with coalitions of agencies such as the Southwest Strategy and individual organizations such as universities. Future partners will include organizations such as the National Park Service, U.S. Fish and Wildlife Service, Bureau of Land Management, U.S. Forest Service, Bureau of Reclamation, U.S. Department of Defense, State
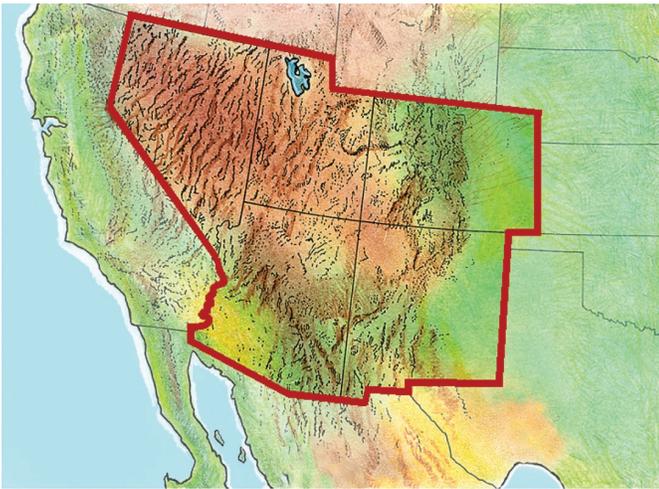
Geographic coverage of the NBII Southwest Information Node

Heritage Programs, state and local governments, tribal governments, and conservation organizations throughout the five-state region.

Objectives and Features

SWIN is creating a Web-access gateway to biological information for the Southwest region. Although a prime focus of the NBII is on biological data, SWIN will be strengthened by data on geology, hydrology, geography, and the human

New Mexico sagebrush

dimension. Resolving complex issues related to fire, water, ecosystem health, and the U.S.-Mexico border that are inherent to this region will depend on the best available scientific information. When fully implemented,

SWIN will cover Arizona, New Mexico, Colorado, Utah, and Nevada, and will maintain links to cover arid zones of adjacent states.

The node is designed to serve relevant data and provide custom analysis tools. Current tools include a searchable database of scientific research and collection activities on federal public lands in New Mexico and Arizona; an interactive mapper that includes themes such as wetlands, land cover, and political boundaries; and links to other organizations involved in Southwest resource issues. Under development are a GIS-based decision support system addressing critical habitats for threatened and endangered species, and a compilation of information about drought- and fire-related data sets available from state and federal agencies.

The Great Basin Information Project (GBIP), initiated in October 2003, is a new component of SWIN. The GBIP will provide consolidated and efficient access to information about the Great Basin and Columbia Plateau regions of the Intermountain West. The initial focus of the GBIP will be on development of four components: a Web site, a metadata server, a bibliography, and an educational internet mapper. The GBIP can be accessed on the Web at: <http://greatbasin.nbii.gov>.

In the future, SWIN will link data to other 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 SWIN exemplifies the NBII's role as an international leader in the dissemination of scientific information.

Prescribed fire in the Bandelier Wilderness, New Mexico

For More Information

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Find us on the Web at: <http://swin.nbii.gov>.