NBII California Information Node

The NBII California Information Node (CAIN) demonstrates solutions for data management and discovery and facilitates information exchange.

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). The regional California Information Node began work in 2001.

Primary Issues

From the deserts to the Redwood forests, California encompasses the most diverse biological region in the

California coast

West. Home to more than 34 million residents, the state faces many 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 NBII California Information Node (CAIN) demonstrates solutions for data management, discovery, exchange, and interoperability for data sets critical to California's environmental decision-making process.

Two key partners form the foundation for CAIN development.

The Information Center for the Environment (ICE) at the University of California, Davis (UCD) hosts the Web site and provides access to a variety of data and information on areas such as invasive species, biodiversity, land use, and water quality. As the state's trustee agency for managing diverse fish, wildlife, and plant resources, the California Department of Fish and Game (DFG) provides biological data and tools needed for effective conservation planning and contributes significantly to the CAIN program. The NBII CAIN team brings together distributed natural resources data and information into a system that facilitates access to a broad user community.

Products and Services

CAIN provides several products and services for users in the region. In 2004, CAIN released CrisisCat, a catalog of invasive species related information such as organizations, people, projects, and species that focuses on high priority invasives. This clearinghouse incorporates CRISIS Maps, an interactive map display and data

Death Valley, California

viewer for weed observations in the regions of California and the Southwest that demonstrate the value of sharing data at a regional level. Data sources include the University of California Cooperative Extension (10,000 bibliographic records), U.S. Geological Survey (USGS) Southwest Exotic Mapping Program, Team Arundo del Norte, Sonoma Ecology Center, the California Department of Food and Agriculture CalWeed projects, and selected species from the CalFlora database.

The NBII, California DFG, USGS Western Ecological Research Center, and U.S. Fish and Wildlife Service (USFWS) teamed up in 2004 to provide access to a wide variety of biological observation data and spatial information needed for conservation planning efforts across the state. While DFG hosts the core data and information through the Biogeographic Information and Observation System (BIOS) to meet state mandates, CAIN will provide access to non-sensitive data and information to the public. Each partner contributes data, staff,

and technical resources to the overall Southern California Data Integration project.

In addition, CAIN will host 60,000 butterfly observations in a searchable online application. Butterflies are critical for California's ecosystems as indicators of environmental change and as pollinators for a wide variety of native and agricultural plants.

Through these strong partnerships with key regional stakeholders, CAIN plans to continue making biological data available electronically as well as developing tools and methods for automated, Web-based data exchange and analysis. CAIN will use the data and apply these tools to real-world scenarios to assist land managers, policymakers, and the general public.

Redwood Forest Road, California

Partners

- UCD ICE
- California DFG, Wildlife and Habitat Data Analysis Branch
- USGS Western Ecological Research Center
- USFWS
- Sonoma Ecology Center
- University of California, Cooperative Extension
- USGS Southwest Exotic Mapping Program
- Team Arundo del Norte
- California Department of Food and Agriculture
- CalFlora
- California Resources Agency, CERES Program, Legacy Program
- CALFED Bay Delta Program
- UCD, Center for Image Processing and Advanced Computing
- UCD, Center for Spatial Technologies and Remote Sensing.

For More Information

Jennifer Pollock
Node Manager
USGS National Biological Information Infrastructure Program
Phone: 303-202-4260
E-mail: jennifer_pollock@usgs.gov

James Quinn
University of California, Davis
Phone: 530-752-8027
E-mail: jfquinn@ucdavis.edu

Tom Lupo
California Department of Fish and Game
Phone: 916-324-6906
E-mail: tlupo@dfg.ca.gov

Allan Hollander
University of California, Davis
Phone: 530-752-4389
E-mail: adh@ice.ucdavis.edu

Find us on the Web at: <http://cain.nbii.org>.
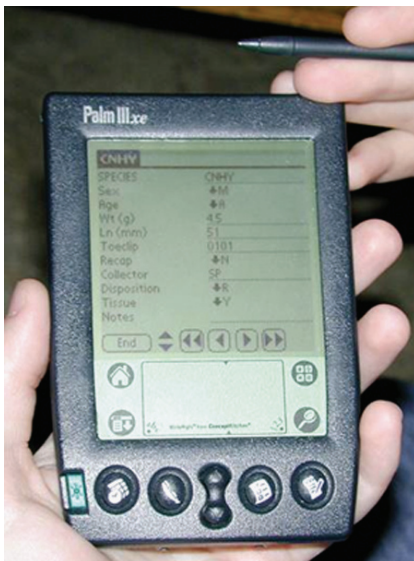
PDA (personal digital assistant) used to collect data in the field