Web Tools and Information for Bird Conservation at Multiple Geographic Scales

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The NBI Bird Conservation Node and partners are providing access to data and information on North American birds across multiple geographic scales, ranging from continental to regional levels. Bird data and information collected at breeding, migration, and wintering grounds is used, when combined, to assess the status and trends of North American bird populations. The node-supported activities highlighted below will provide access to bird monitoring data and species distribution maps via Web sites and web-based tools available online by the end of 2005.

**Digital Distribution Maps of the Birds of the Western Hemisphere**

The Digital Distribution Maps of the Birds of the Western Hemisphere provide distribution information for 4,247 species of birds from 17 families. Not all species occur regularly in North America. Digital maps are available as Arc/Info digitized files for use in GIS applications, or as GIF images for direct viewing via NatureServe Explorer and Biological Search. Arc/Info digitized files include information on taxonomy, status, statewide use by species, and distribution status of the birds. Users will be able to filter and customize the maps using species lists, habitat maps, and additional species and region maps.

**Multinational Resource**

- **Ducks Unlimited, Inc.** (DU), in collaboration with about 100 colleagues from ten different countries in the Caribbean and Central and South America, is gathering valuable data on the distribution and numbers of North American and Neotropical waterfowl. For the first five years, field data was entered on "field sheets" and then entered on a Excel spreadsheet. For the next two years, colleagues were able to use an Access database that helped with the entering and analysis of the data. Now, DU program managers have worked with the U.S. Fish and Wildlife Service and NBII to develop a Web-enabled Oracle database that manages all the information since 1986. The database will include information on all birds listed under the US Migratory Bird Treaty Act. The database will also be configured to use an interface for entering and distributing data from information contained in the Directory of Neotropical Wetlands (Scott & Carbonell, 1998). Partner countries and coordinators from the countries participating in the surveys will be able to enter their survey information online and guest users will be able to query survey summaries and count data via tables or mapping application.

- **National/Regional Resource**

  **Regional Bird Conservation Planning: Birds and Land Uses**

  The Web site is designed to assist managers concerned with bird conservation planning. The Web site uses mapping software, in a user-friendly interface, and downloadable Bird-Surveying-Bird Survey (BSB) data associated with user-specified locations, such as federal lands, counties, states, and other geographic divisions. It also allows users to view BSB data within a specialized format from a local county to a continental scale. The Web site also allows users to access distribution maps for all species represented in the BSB database. The Web site eventually provides access to the entire PRBO Pacific Flyway database, containing over a million shorebird observations from Alaska to Mexico, and will facilitate a next generation of citizen science focused on documenting shorebird numbers, phenology, and habitat use throughout the Americas and possibly beyond.

  The site provides access to information about land use, management, and land cover data. The Web site provides a gateway for managers, scientists, and the public to identify and manage bird habitat. The Bird Conservation Node is responsible for developing and maintaining the data management resources. For more information, visit the Web site: [http://www2.natureserve.org/getData/birdMaps.jsp](http://www2.natureserve.org/getData/birdMaps.jsp)

**Tools for Shakebird Monitoring**

The Web site provides access to reference materials, field protocols, data forms, help, and online data management facilities for the shakebird monitoring program. The Web site includes a fully functional database developed as part of tools for shakebird monitoring and accessible using varying protocols and project contexts, and will interface with newly emerging Bird Monitoring Data Exchange Schemes. The Web site provides access to reference materials, field protocols, data forms, help, and online data management facilities for the shakebird monitoring program.

**Regional Bird Conservation Tool**

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