

Providing Digital Access to Ancillary GAP Data

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Introduction

In addition to the standard coverages produced by the U.S. Geological Survey Gap Analysis Project (GAP), a variety of ancillary datasets are developed by state and regional projects. These datasets are used not only for producing the standard GAP coverages, but also can be used as products on their own. Following is a discussion of some of the ancillary datasets and information sources developed by GAP projects, how to access these data products, and current application of these datasets in natural resource management activities. The National Biological Information Infrastructure (NBII) is a cooperator in providing Internet access to a selection of these information resources.

Southwest Regional Gap Analysis Project (SWReGAP) Training Site Photographs

As part of the effort to collect 'ground-truthed' training data for the SWReGAP landcover mapping effort, field photos were taken for the majority of the sample plots. A training site database is made available online by the Remote Sensing/GIS Lab at Utah State University. This database includes over 45,000 photos and other data collected during the field effort for SWReGAP. The database can be accessed from <<http://earth.gis.usu.edu/swgap/trainingsites.html>>. To make the field photographs available to an even larger audience, work is beginning with the NBII Digital Image Library (DIL) to incorporate these photographs and their associated metadata into the DIL <<http://images.nbii.gov>>. The library contains well-documented images associated with organisms, habitats, wildlife management, and biological research. Images are also linked to metadata that follow the Dublin Core metadata standard. It is anticipated that other regional field photos from GAP will be incorporated into the DIL in the future.

Management Plans

As part of the GAP stewardship mapping effort, management plans are collected to provide information on management intent for various land tracts. Collection of these plans requires searching library collections and agency websites, and contacting agencies directly. In some cases, hundreds of plans may be collected representing a vast resource of consolidated management plan documentation for a region. This collection of management plans can be a useful resource for agencies or organizations interested in researching management actions for various areas.

Recently, an effort to catalogue this collection of management plans has begun in the NBII. The Southern Appalachian Information Node (SAIN) <<http://sain.nbii.gov>> has catalogued management plans that were collected as part of the Southeast Gap Analysis Project. These management plans are now available from the Resource Management Tools page of the SAIN website. Cataloguing of management plans collected in the Southwest and Northwest will also be completed to provide access to these resources through the NBII.

Other Ancillary Data From SWReGAP

Three ancillary datasets were developed by SWReGAP for use in developing the standard GAP coverages. These datasets are now available from the Remote Sensing/GIS Lab at Utah State University. The Geology dataset is a seamless 1:500,000 scale GIS dataset of surficial geologic formations for the states of Arizona, Colorado, Nevada, New Mexico and Utah. The dataset was compiled and edge-matched from digital versions of the 1:500,000 scale state geologic maps and is currently available from <<http://earth.gis.usu.edu/swgap/geology.html>>. The Landform dataset consists of 10 landform position classes defined by topographic position and slope gradients that were modeled using a GIS and is available at <<http://earth.gis.usu.edu/swgap/landform.html>>. Landsat

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ETM+ Images are available at <<http://earth.gis.usu.edu/archive/search.html>>. Using this archive one can search for imagery by clickable map, WRS2 Path and Row, by Latitude/Longitude, or by place name. Information is made available from the Intermountain Region Digital Image Archive Center (IRDIAC). The archive stores, processes, and disseminates, through the Internet, remotely sensed information to state and federal collaborators and the public within the Intermountain Region.

Uses of Ancillary Data

Landform and geology datasets produced by SWReGAP were used in the following applications: statewide resource inventories; hydrologic modeling; resource management planning by federal and state agencies; development of a geomorphic dataset; soil erosion modeling; sage-grouse habitat analysis; modeling pygmy rabbit habitat; as part of the soils and geology inventories of the National Park Service's Inventory and Monitoring (I&M) process; providing a geologic base for relating field data spatially; modeling

distribution and age-structure of Southwest pinyon-juniper woodland systems relative to abiotic factors; studying the association between landform and cultural resource locations; environmental analysis for highway right-of-way maintenance; and groundwater flow models.

Ancillary Data Currently Available on GAPServe

A variety of ancillary datasets are currently available on the GAP website. The user can search under "Maps, Data, and Reports" then click on "Find GAP Data" and choose to find data by "Theme." Ancillary data is listed under the "Other" category of data themes. Categories of data available include: elevation, slope, lakes, streams and rivers, wetlands, springs, watersheds, roads, cities, county boundaries, soils, and temperature data <<http://gapanalysis.nbio.gov/gapserv>>