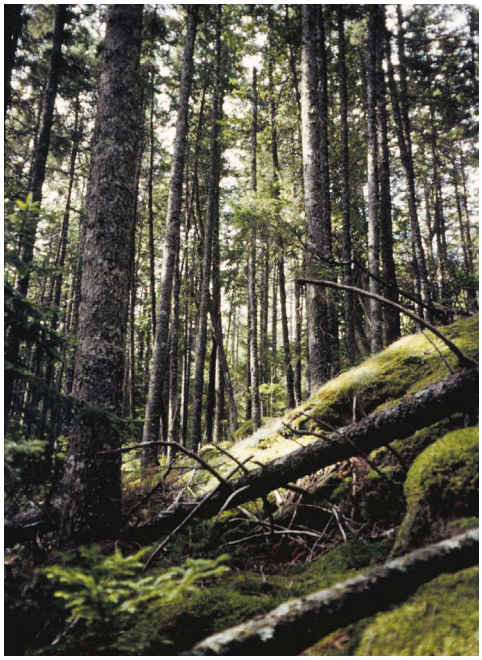
National Biological Information Infrastructure

USGS Vegetation Mapping Program

All digital products from the Vegetation Mapping Program are being made available through the NBII …

Enabled by the National Biological Information Infrastructure (NBII) Program, the U.S. Geological Survey (USGS) is cooperating with the National Park Service (NPS) to produce detailed, computerized maps of the vegetation of 278 National Park units across the United States. Through this undertaking – the USGS Vegetation Mapping Program <http://biology.usgs.gov/npsveg/> – a variety of data and information on vegetation are being made available to Internet users through the NBII.



This vegetation association occurs in regions of Acadia National Park – a red spruce (maritime spruce) dominated forest with varying proportions of balsam fir and other conifers at relatively low abundance.

Western Wheatgrass – Green Needlegrass Mixedgrass Prairie (Wind Cave National Park, South Dakota)

The Vegetation Mapping Program is an important component of the NPS's natural resources Inventory and Monitoring Program. Using a set of standards and flexible protocols, Vegetation Mapping Program scientists and technicians are developing consistent and standard vegetation information products for all of the 278 National Park units with monitoring programs. A standard product for each park is a digital map that meets National Mapping Accuracy Standards at a scale of 1:24,000. Park vegetation is mapped to a minimum mapping unit of 0.5 hectares at the cover type/community type level of the Federal Geographic Data Committee's (FGDC) National Vegetation Classification Standard <http://biology.usgs.gov/fgdc.veg/>.

Other products for each park include:

- A field plot database that is used to characterize park vegetation classes,
- A vegetation classification description and keys, and
- A formal accuracy assessment based on sample points to provide statistics of the map products with a goal of 80 percent.

FGDC-compliant metadata are produced for all products, including digital and hardcopy maps, as well as tabular information and customized products. A set of stringent quality control procedures have also been implemented to ensure products are accurate and consistent for initial inventory purposes and replicable for monitoring purposes, as well as for systematic comparisons at different time periods and at different levels and geographic areas across the United States.

Because all digital products from the Vegetation Mapping Program are being made available through the NBII, other producers and users of vegetation data and information will be able to locate, retrieve, and utilize the product(s) that best meet their needs.

One tool that has been developed through the Vegetation Mapping Program, in collaboration with NatureServe, is the PLOTS database, which is used to capture and analyze field survey information on vegetation. The PLOTS tool will also be available for others to use in

implementing field or mapping studies of vegetation or for use in helping document and standardize the lower levels (i.e., "association" - cover type; and "alliance" - community type) in the FGDC National Vegetation Classification Standard (NVCS). These more detailed levels are being developed in the NVCS. Use of the PLOTS tool, together with the NBII information sharing network, would enable a framework for many different collaborating agencies, organizations, and scientists to cooperate in naming and describing the thousands of different vegetation cover and community types known to exist in the United States.

As federal agencies and others start to describe and map vegetation using the NVCS, or to "reclassify" and/or "cross-walk" existing vegetation information to the FGDC national standard, exciting opportunities exist to develop and share more comparable vegetation information at different classification and spatial scales nationwide. This can facilitate – for the first time – well-defined analyses and "apples to apples" comparisons over landscapes at different scales and across administrative boundaries. The NBII can assist this broad cooperative process by promoting refinement of the NVCS, by simplifying the creation of metadata needed for data discovery and use, and by expediting the exchange of vegetation data and information.

For More Information

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