



Vegetation Inventory

Background

The Vegetation Mapping Inventory is an effort by the National Park Service (NPS) to classify, describe, and map detailed vegetation communities in more than 270 national park units across the United States.

The primary objective of the Vegetation Mapping Inventory is to produce high-quality, standardized maps and associated data sets of vegetation and other land-cover occurring within parks. This information fills and complements a wide variety of resource assessment, park management, and conservation needs.

Vegetation species and communities are unique from park to park. The inventory of these resources helps park managers conserve plant biodiversity, manage challenges such as exotic species, insect outbreaks, and diseases, and understand resources and processes such as wildlife habitat relationships and wildland fires.

For example, in Sequoia and Kings Canyon National Parks, the 2007 vegetation map and digital database provided the park with tools to better manage foxtail pines (*Pinus balfouriana* ssp. *austrina*), an endemic species to the southern Sierra Nevada. Foxtail pines live more than 1,000 years and their tree rings contain valuable information about past climate fluctuations. In Rocky Mountain National Park, vegetation map and inventory data aid in the study of elk damage to aspen and willow trees along elk wintering grounds.

NPS vegetation mapping follows well-established procedures that are compatible with other agencies and organizations. The inventory uses the National Vegetation Classification Standard, a system that is integrated with the major scientific efforts in the taxonomic classification of vegetation, and is a Federal Geographic Data Committee standard. In addition, stringent quality control procedures ensure the reliability of the vegetation data and encourage the use of resulting maps, reports, and databases at multiple scales.

Products

A complete vegetation mapping project for a park includes the following products:

- Detailed vegetation report
- Digital vegetation map
- Vegetation plot data
- Accuracy assessment data & analysis
- Dichotomous vegetation key
- Photo-interpretation key



Red Maple-Ash-Birch Swamp Forest with Marsh-marigold (*Caltha palustris*), Skunk-cabbage (*Symplocarpus foetidus*), and Brome sedge (*Carex Bromoides*). Saint Croix National Scenic River. Photo by Chris Lea.

Maps are produced in UTM coordinates (NAD 83) with a 1:24,000 scale and a minimum mapping unit of 0.5 hectares. The vegetation maps must meet the National Map Accuracy Standards for positional accuracy, and the minimum class accuracy goal across all vegetation and land cover classes of 80 percent.

Status

In the lower 48 states and Hawaii, 91 NPS units have completed vegetation mapping inventories totaling over ten million acres of NPS lands. Mapping projects are ongoing at 150 parks. Currently, 19 parks are planned but have not yet started with vegetation inventory projects. This inventory is 35% complete. NPS units in Alaska have a different vegetation mapping protocol.

More Information

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Vegetation Mapping Home: <http://science.nature.nps.gov/im/inventory/veg/index.cfm>
Information on the NVCS: <http://www.natureserve.org/library/vol1.pdf>
I&M Inventories: <http://science.nature.nps.gov/im/inventory/>