



Resource Inventories: Discovering America's Natural Heritage

From the majestic mountain ranges and glacier fields of Alaska to the Sonoran Desert of America's Southwest, from the volcanic landscapes of Hawaii to the magnificent barrier islands of the northeastern United States, national parks embrace some of the most spectacular natural wonders found in the world. These resources, representing America's natural heritage, have inspired, awed, and brought enjoyment to millions of Americans for decades.

To fulfill the National Park Service's mission of preserving the nation's heritage, it is essential that park managers know the nature and condition of the resources placed under their stewardship. Natural resource inventories allow us to account for park resources, including the presence, class, distribution, and normal variation of plants and animals and nonliving resources such as water, soils, landforms, and climate. Inventories also contribute to a statement of the condition of park resources in relation to a desired standard condition, preferably the natural or unimpaired condition.

Using funding received through the Natural Resource Challenge, the National Park Service is completing basic inventories of the natural resources placed under its stewardship. The inventories are being closely coordinated to ensure that they satisfy several important criteria:

- ❑ Collectively, the inventory data represent the "core" set of information park managers need to deal effectively with park planning, management, and protection—not all the information needed, but a common core set.
- ❑ The inventories are being conducted in accordance with clearly defined protocols and quality-assurance standards.
- ❑ Data obtained through the inventories will be compatible to allow for synthesis and analysis at ecosystem and other broad levels.

Parks have been organized into networks of parks sharing similar geographical and ecological characteristics. Inventories of plants and animals are being conducted cooperatively using these network organizations, allowing partnerships with academic institutions and other agencies with expertise in local flora and fauna. Other types of inventories are being coordinated from a central office in Ft. Collins, Colorado. Many of them are being acquired from other Federal agencies at a cost savings due to the coordinated approach. The approach in both cases is to acquire the inventories in the most cost-effective manner.



An inventory in Great Smoky Mountains National Park revealed two species of amphibians not previously recorded in the park: the eastern spadefoot toad (left) and mole salamander (right).



Basic Natural Resource Inventories

- ❑ **Automated Bibliographies** Automating bibliographies of work done in the past to make them accessible was the first inventory priority. All parks have been provided software and most now have a bibliographic database.
- ❑ **Base Cartography Data** Several cartographic products managers need to prepare maps and perform spatial analyses and assessments are being acquired.
- ❑ **Species Occurrence** Lists of the vertebrates and vascular plants currently known to occur in parks have been and continue to be compiled and verified. New field inventories are documenting additional species, especially those in groups of plants and animals left out of past inventories.
- ❑ **Species Distribution** New field inventories are also focusing on the distribution of species of concern to managers as threatened and endangered species and exotics.
- ❑ **Vegetation Maps** All parks will have a map of vegetative communities found in the park, based on recent aerial photography and following a standard classification.
- ❑ **Soils Maps** The Park Service is completing soils geologic maps for parks through a partnership with the Natural Resource Conservation Service.
- ❑ **Geologic Maps** Geologic maps for parks are being completed through partnerships with the U.S. Geological Survey and State geologic agencies.
- ❑ **Water Resource Inventory** The location of streams, lakes, and wetlands is being documented digitally.
- ❑ **Water Chemistry** Water quality information is being collected for all “key” water bodies found in the parks.
- ❑ **Air Quality** Where the National Park Service does not have its own monitoring stations, data from EPA air quality monitoring stations near parks are being summarized into an air quality atlas to assess air quality conditions in parks.
- ❑ **Air Quality-Related Values** Basic air quality-related information includes identification of visibility and other park resources that may be affected by air quality; the information will be available through a Web-based computer program.
- ❑ **Meteorological Data** Basic meteorological parameters such as precipitation and daily temperature are collected.



Collecting macro-invertebrate samples in the Piney River; Shenandoah NP.

The National Park Service cares for special places saved by the American people so that all may experience our heritage.

The Natural Resource Challenge is increasing NPS scientific understanding in parks all around the nation, from Maine to Florida to Alaska and the Pacific Islands. For more information about the Natural Resource Challenge, visit www.nature.nps.gov/challenge/nrc.htm.

