The National Park Service
Natural Resource Information Division
Fact Sheet

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ANIMALS AND PLANTS IN THE NATIONAL PARK SYSTEM

Mission and Basic Policies

In 1916, the U.S. Congress declared the fundamental purpose of parks and mandated the National Park Service

> *to conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for future generations. Accordingly, the National Park Service manages the animals and plants and their environment to minimize human interference.*

People and their environment have always interacted. Pre-Columbian humans in North America used fire, for example, to alter vegetation and to capture some animals. Today, habitats around parks are often developed and the landscapes around the parks are fragmented. Pollution affects air, water, animals, and plants. Human intervention may be needed to reverse adverse effects of human actions. Such intervention includes protection of native plants and animals and restoration of species that humans eliminated from parks.

Determining the kind and extent of necessary management is difficult. It requires information about the status of the plants and animals, understanding of the environment around the park and of human social structure and needs, and careful examination of the purposes for which the Congress established a specific park. The information must be gathered with species inventories, population monitoring, and research on the interactions of the animals and plants with their environments.

The parks are homes to their native animals and plants. Humans that come to the parks are visitors of these homes. Human visitors are usually allowed only to observe, hear, and smell the animals and plants of parks and are expected to refrain from harassing or harming them.

Major Issues in Animal and Plant Management

Restoration of Plants and Animals

The restoration of disturbed or damaged habitats and missing animal species is important for improving and maintaining ecosystem functions. Many land parcels sustained damage before they became parks or parts of parks. Visitor use and development in parks also disturb lands that must periodically be revegetated and restored. Revegetation also prevents infestation by exotic plants or reinfestation of managed areas by exotic plants.

Although native species revegetate some disturbed areas spontaneously, most disturbed areas require human intervention. Plant community restoration ranges from minor soil preparation and seeding to major grading, soil replacement, and planting. The restoration of riparian areas may also require changes in water channels. The National Park Service uses native species that are genetically as similar as possible to plants that previously grew in restoration sites. Such plants may be grown from seeds that were harvested in parks and may be raised in nurseries in parks.

Native animal species are important elements of ecosystems. If conditions are conducive, the National Park Service restores animal species in parks from which they were eliminated by humans.

Fire Ecology

Many plant species and communities have evolved in the presence of frequent fire. Key species in such communities depend on fire for reproduction. Even the structure of plant communities, namely, the mosaics of open areas and the differing sizes and ages of plants may depend on fire. Lightening can cause natural fires. Humans set fires accidentally but also purposely, for example, to manage a landscape. Letting accidental fires burn and purposefully igniting fires to manage landscapes are known as prescribed burning.

Prescribed burning maintains natural areas and some historic scenes. Prescribed burning must be carefully controlled to avoid endangering areas that are not amenable to fire treatment and to avoid undesirable effects such as air pollution. The timing, frequency, and intensity of fire treatments must be species- or community-specific.

Threatened and Endangered Species

Many national parks provide the last remaining protected habitats for threatened and endangered species. Like all federal agencies, the National Park Service is required by the Endangered Species Act of 1973 (P.L. 93-205) to conserve endangered and threatened species and their critical habitats and to avoid actions that may jeopardize the listed species' survival. By policy, the National Park Service also protects species that are listed by states or rare in states. Federally listed threatened or endangered species occur in at least 120 National Park System units. The recovery plans of at least 168 of these species include more than 2000 tasks that are the responsibility of the National Park Service. The responsibilities include the conduct of surveys, inventories, and monitoring, the protection of listed species' habitat and nesting sites, and the restoration of native species that were eliminated from parks.

Large Grazing Animals

Large wild grazing animals such as deer, elk, and bison historically ranged over larger and differently configured areas than National Park System units. Animals do not understand legal property boundaries. Unless parks are fenced, which is not always practical, animals wander out of parks to graze on adjacent lands. In a setting unaffected or lightly affected by humans, animal populations are controlled by a combination of factors such as food availability, predators, and weather severity that too are altered in human-dominated landscapes with parks. Large mammals are perceived as pests if they graze in gardens or on crops adjacent to parks and where neighbors are concerned that they may transmit diseases such as brucellosis to domestic animals. Large populations of grazing native species may change plant communities when their rate of feeding exceeds the rate of plant growth. Similar problems are created by exotic animals such as horses that some parks maintain to preserve historic landscapes.

Bears

Bears and humans interact and conflict in almost all national parks that are inhabited by bears. Many bears appropriate campers' and hikers' food supplies and thereby learn to associate humans with sources of food. Park management minimizes the development of conflicts and hazardous interactions with bears by educating the public, providing bear-proof food storage for visitors, enforcing food storage regulations, and treating and removing garbage. Some habituated bears are relocated. If such bears return and cause property damage or threaten human safety, they must be destroyed by humane methods.

Exotic Species

Exotic species are organisms not native to an area. They are also called *aliens*, *non-natives*, or simply *exotics*. In more than half or about 190 units in the National Park System, exotic plant and animal species are a serious problem. Exotic species have eliminated native plant communities and habitat for wildlife, altered fire regimes, despoiled or eliminated critical water resources, altered soil chemistry, increased soil erosion, and interbred with native species. The National Park Service manages exotics by applying integrated pest management that includes early identification of infestations, control of species that most threaten native species or natural conditions if controls are available, cooperation with adjacent land managers, and a combination of well tested biocontrol agents, manual techniques, and—in selected cases—pesticides.

Consumptive Use of Animals and Plants

Hunting and fishing for sport and for subsistence by Alaskans, harvesting by Native Americans for traditional uses, and livestock grazing are consumptive uses of animals and plants that are allowed in some parks. Hunting and trapping in parks must be authorized by specific legislation. Sport hunting is restricted to about 50 National Park System units, subsistence hunting to about 17 units, and trapping to about 45 units.

Fishing is allowed in more than 170 units if it is either specifically authorized by law or not specifically prohibited by law and if it does not interfere with the functions of the aquatic ecosystems or riparian zones. Where fishing is allowed, fishers must often follow state laws and must comply with treaty rights but also must comply with park regulations, which may be more restrictive than state laws or treaty rights.

Grazing of domestic animals may be permitted by the Secretary of the Interior in all parks except in Yellowstone National Park. Livestock may graze in parks if specifically authorized by legislation, if grazing rights were retained when a park was acquired, or if grazing is a

part of management that maintains a historic scene.

Picking berries or collecting seashells for personal use and collecting natural products by Native Americans for traditional uses are regulated by park when such uses do not adversely affect park resources.

For further information contact the Natural Resource Systems Office 202-208-4913

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Photograph by Mike Coffey