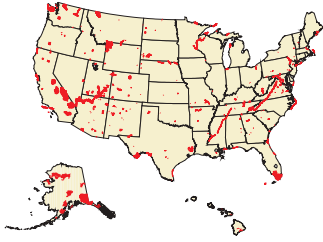


by Loyal A. Mehrhoff and
Peter A. Dratch

Endangered Species and the National Park Service



The National Park System (in red)
represents ecosystems throughout
the United States. For details, visit its
website at www.nps.gov

Like all federal agencies, the National Park Service is required by the Endangered Species Act (ESA) to protect endangered and threatened species, and to avoid any actions that might jeopardize their survival or adversely modify their critical habitats. In addition, the National Park Service recognizes that the ESA goes further by requiring federal agencies to actively promote the conservation of listed species. The National Park Service extends these responsibilities to protecting state-listed as well as federal candidate species.

Currently, we know of 398 federally listed species of plants and animals that occur on lands managed by the National Park Service. This represents about 30 percent of the 1,244 federally listed species within the United States and its territories (as of June 1, 2001). Plants comprise the greatest number of listed species in areas managed by the National Park Service, but there are a large number of mammals and birds as well (Table 1 on page 6). These species are found throughout the National Park System from the Virgin Islands to Maine, Alaska, and American Samoa. In all, over 187 parks provide habitat for at least one listed species. Parks in Hawaii, California, and Florida contain the greatest number of listed species, although parks in other biodiversity hot spots, such as the southern Appalachian Mountains, also have significant numbers (Table 2 on page 6).

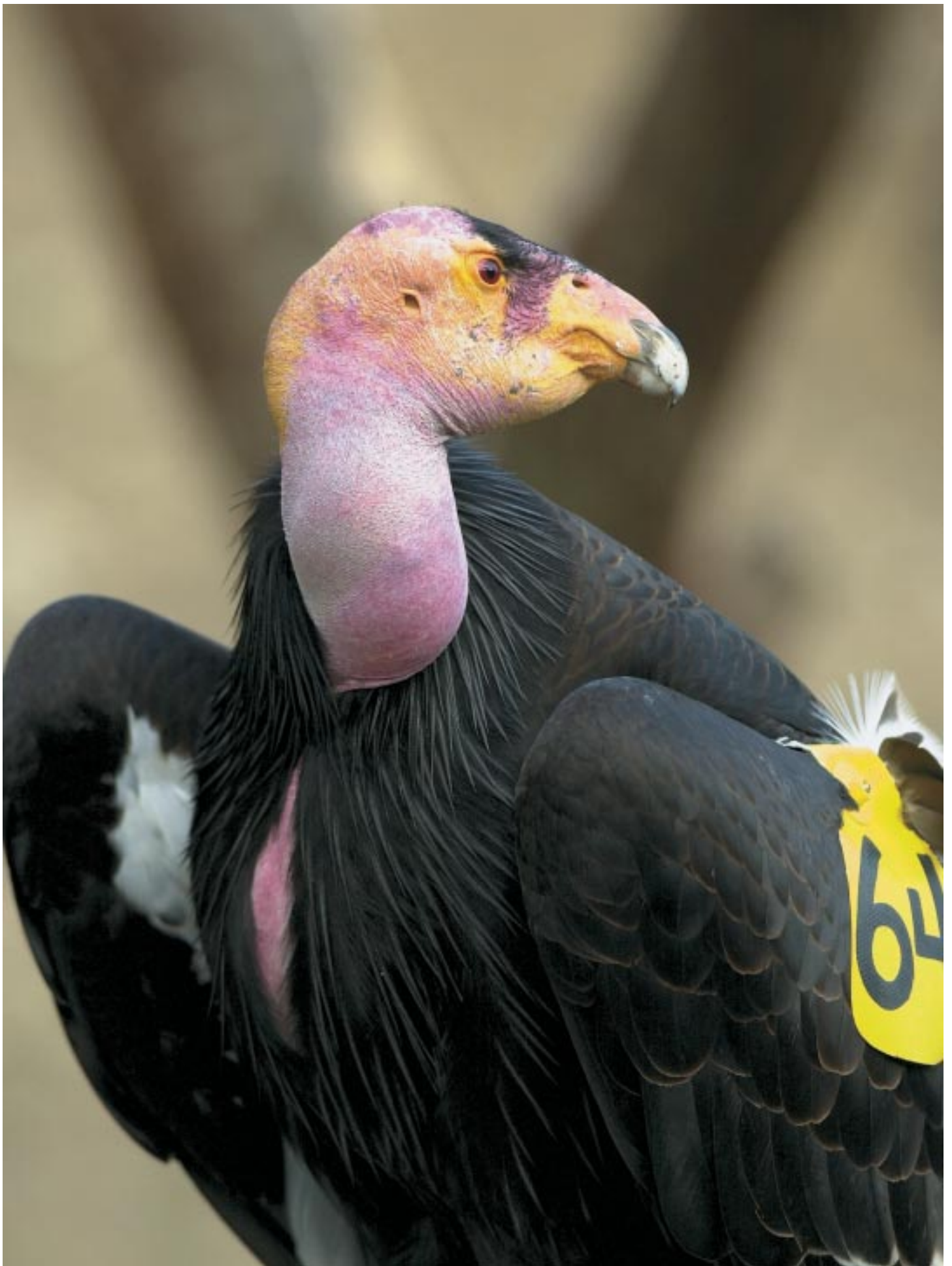
Recovery plans approved by the U.S. Fish and Wildlife Service and National Marine Fisheries Service recommend thousands of tasks for the National Park Service to undertake. Implementing these tasks continues to pose enormous

technical and fiscal challenges. The issues are diverse, ranging from removing nonnative zebra mussels (*Dreissena polymorpha*) from a river to reestablishing populations of extirpated bird species such as the California condor (*Gymnogyps californianus*). In the year 2000, the National Park Service spent \$13.8 million on the recovery of federally listed species, compared to \$3.3 million in 1993. These figures show that recovering listed species has become an important activity in the National Park System*, but there is still much to do.

How does the National Park Service protect and restore endangered species? First, we rely on highly capable park personnel who work hard to conserve rare animals and plants and to enforce laws for their protection. It is at the individual park unit level that much of the work is accomplished. Second, a regional and national level organization prepares policies, administers programs, and provides expertise to committed

*The areas managed by the National Park Service include National Parks, National Preserves, National Recreation Areas, National Seashores, National Historic Parks, and many others.

(Opposite page) California condor
Photo by Scott Frier/Nikon, Inc.





Nonnative zebra mussels attach to native mussels and can cause their death.

USFWS photo

One Threat, Many Names

Many words have been used to label the plants, animals, and other organisms from elsewhere that overrun our natural areas. Alien, exotic, introduced, invasive, nonnative, nonindigenous, and weed (for plants) are the primary ones and are generally synonymous. In this issue, the National Park Service authors use several of these terms to describe the litany of species that are infesting our national parks.

Editor's note: The Fish and Wildlife Service recognizes that a nonnative species may not necessarily take over and cause a problem. Some agricultural crops won't reproduce without human help. Conversely, native species have invaded their own habitats when one or more natural factors were altered. For example, although cattails are native to the Everglades, fertilizer in irrigation runoff has caused the normally small cattail patches to spread densely over thousands of acres. According to Presidential Executive Order 13112 (President Clinton's 1999 directive), an invasive species is "an alien species whose introduction does or is likely to cause economic or environmental harm or harm to human health."

Park Service employees. Some of the conservation projects underway within the National Park System are described in the following articles.

Beginning in 2000, Congress funded the first year of a 5-year initiative called the Natural Resource Challenge. The Challenge seeks to protect native and endangered species, aggressively control nonnative species, accelerate natural resource inventories, and expand monitoring activities. The Biological Resource Management Division was formed in Fort Collins, Colorado, as part of this effort. Our Endangered Species Program, one part of the Division, is charged with administering the Park Service's nationwide endangered species effort, reviewing policies, and providing scientific expertise to parks and senior management. To be successful, our program must directly benefit the units of the National Park System and their efforts to recover endangered species. That means working closely with park personnel, the regional Endangered Species Coordinators, and other programs, such as alien weed control, fire

management, and inventory and monitoring. Currently, we are focusing our efforts in six key areas:

1. Information. We will soon complete an endangered species database that tracks the status of listed species in the National Park System. This database, developed in cooperation with

Taxonomic Group	Species
Plants	193
Invertebrates	43
Fish	40
Amphibians	4
Reptiles	19
Birds	53
Mammals	46
Total	398

Table 1. Endangered, threatened, proposed, and candidate species found in units of the National Park Service.

National Park	Plants	Animals	Total
Haleakala National Park, Hawai'i	35	12	47
Hawaii Volcanoes National Park, Hawai'i	27	15	42
Channel Islands National Park, California	15	18	33
Golden Gate National Recreation Area, California	14	15	29
Santa Monica Mountains National Recreation Area, California	10	13	23
Kalaupapa National Historic Park, Hawai'i	15	7	22
Natchez Trace Parkway, Mississippi	8	12	20
Everglades National Park, Florida	7	12	19
Great Smoky Mountains National Park, Tennessee	4	12	16

Table 2. Areas in the National Park System with the largest numbers of endangered, threatened, proposed, and candidate species.

the National Park Service's Inventory and Monitoring Program, the Association for Biodiversity Information, and the Colorado State Heritage Program, will provide the distribution of listed species in our parks, the status of these species in each park, identify needed recovery actions, and track our successes in implementing those actions.

2. Making the Units of the National Park System Ecologically Whole. Many people think of national parks as pristine areas where plants and animals thrive relatively undisturbed. Although some are indeed in good condition ecologically, many are not. Moreover, many of our parks are rapidly becoming islands of native habitat within a sea of disturbed lands. We know that past human activities have eliminated many endangered, threatened, proposed, and candidate species on National Park Service lands. The list of species now missing from at least one national park unit includes 41 plants, 18 birds, 14 mammals, 6 fish, 4 invertebrates, 2 amphibians, and 1 reptile. Our ultimate goal is to reestablish and maintain all species native to the National Park System, provided that this can be done in a safe and ecologically sound manner. We cannot accomplish this goal without the help of other federal agencies, the states, Native American Tribes, and partners such as universities, zoos, and other organizations.

3. Genetic Safety Net. The National Park System harbors at least 193 species of plants that are endangered, threatened, proposed, or candidates for listing. Many of these species occur in very low numbers or in scattered, vulnerable populations. The Park Service is working with institutions of the Center for Plant Conservation and the U.S. Department of Agriculture's National Seed Storage Laboratory to collect seed samples from listed plant populations and place them into long-term storage. These collections will form a genetic safety net in case a park's wild population continues to decline or is lost.

4. Training. It is important to ensure that natural resource professionals have access to training on new conservation theories, technological advances, and regulatory processes. We plan to provide expanded training opportunities through National Park Service training courses, increased use of web-based information, and training at facilities run by partners such as the U.S. Fish and Wildlife Service's National Conservation Training Center.

5. Research. Recovery for many listed species will be difficult without research focused on their biology or on the threats facing them. We need to encourage scientists to work in the units of the National Park System. To this end, the National Park Service will continue to promote key research in cooperation with other government agencies and our academic partners.

6. Funding. The National Park Service, like other federal agencies, lacks the funds to accomplish all or even most of the restoration actions identified in species recovery plans. We need to find ways to continue funding for those species that show signs of stabilization or recovery while expanding our efforts for species that are still in decline. While this may require new funding sources, it also means working better with partners such as the National Park Foundation, National Fish and Wildlife Foundation, Partners in Parks, conservation organizations, and corporate sponsors.

As stewards of America's National Parks, we must continue to rise to the challenge of recovering the threatened and endangered species that inhabit our most cherished wild places.

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NPS photo

A Message from National Park Service Director Fran Mainella

"There are no better places to recover endangered species than our national parks. Our challenge is to ensure that these special places—places we go to for inspiration and solace—are also functional for the rarest plants and animals. While the National Park Service should be a leader in restoring species, many park units are not big enough for us to succeed alone. We must work closely in this vital effort with other federal agencies, with states, and with private citizens."

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