



# Endangered Species Recovery Program

Working with partners, the U. S. Fish and Wildlife Service (FWS) uses a range of conservation tools to “recover” endangered and threatened species—to ensure that they are secure members of their ecosystems. These tools include restoring and acquiring habitat, removing introduced animal predators or invasive plant species, conducting surveys, monitoring individual populations, and breeding species in captivity and releasing them into their historic range.

Collaborative efforts are critical to recovery success. Our partners include Federal, State, and local agencies, Tribal governments, conservation organizations, the business community, landowners, and other concerned citizens.

As a result of these efforts, the Endangered Species Act (ESA) has been credited with saving species such as the California condor, black-footed ferret, peregrine falcon, and our Nation’s symbol, the bald eagle, from extinction.

## What do we mean by recovery?

Recovery is the process by which the decline of an endangered or threatened species is arrested and threats are removed or reduced, ensuring the long-term survival of the species in the wild. At that point the species is recovered, and protection of the ESA is no longer necessary.

## How does the Recovery Program work?

The FWS Recovery Program staff works with partners to take measures to prevent the extinction of species, and prepares, coordinates, and implements recovery plans.

Recovery plans provide a roadmap with detailed site-specific management actions for private, Federal, and State cooperation in conserving listed species and their ecosystems. A recovery plan is a non-regulatory document. It may apply to one species or an ecosystem.



Nancy Marx/USFWS

*Hobe Sound National Wildlife Refuge in Florida was established as nesting habitat for endangered green sea turtles and threatened loggerhead sea turtles.*

## How is species recovery achieved?

Recovering listed species cannot be accomplished solely on our national wildlife refuges, national forests, national parks, and other Federal lands because many species occur primarily or solely on private land. Achieving recovery for most species typically requires cooperative conservation with private landowners.

To stabilize, recover, and ultimately delist endangered and threatened species, the FWS engages a range of stakeholders. We work closely with other Federal agencies to ensure that their activities do not adversely impact listed species and help them use their authorities to conserve these species.

## Flexible management of threatened species

Section 4(d) of the ESA enables us to establish special regulations specifically for threatened species.

These “4(d)” or “special rules” allow us to customize the protections of the ESA to match the conservation needs of the species and people.

For example, the FWS developed a special rule to benefit the Apache trout, a species that anglers may catch while attempting to catch other fish. To accommodate the accidental capture, the rule allows Apache trout to be caught as long as they are returned to the water. Revenue generated from fishing in waters that the trout inhabits helps conserve habitat.

## Safe Harbor Agreements for private landowners

Through incentives, the FWS provides opportunities for private landowners to participate in conserving and recovering imperiled species. One example is the Safe Harbor program, available to non-Federal landowners who voluntarily implement conservation measures for listed species. For agreeing to take specific conservation actions, the FWS provides the assurance that no additional actions that could limit future management options will be required.

In the Southeast, landowners who participate in Safe Harbor Agreements for red-cockaded woodpeckers have been removing hardwoods in longleaf

pine stands, conducting controlled burns to remove undergrowth, and installing nest boxes. These initiatives help address the loss of habitat and promote breeding success since the endangered birds would otherwise need years to excavate nesting cavities in living trees. Safe Harbor Agreements provide the assurance to landowners that the FWS will not require them to do more for the woodpeckers, including those attracted to the improved habitat, thereby alleviating concern about future land use restrictions under the ESA.

### **Grants to States, Territories, and private landowners**

The FWS also annually offers millions of dollars in grants for endangered species conservation and recovery. Cooperative Endangered Species Conservation Fund grants are offered to States and Territories for an array of conservation projects for species that are listed, proposed, or candidates for listing.

In turn, these funds may be awarded to private landowners and groups for conservation projects. For more on our grants programs, visit <http://www.fws.gov/endangered/grants/>.

### **Reintroducing species into their historic range**

Re-establishing a threatened or endangered species in its former range is often necessary so that there are enough populations to sustain recovery. To relieve concern that reintroductions may result in restrictions on the use of private or public land, Congress added the provision for experimental populations under section 10(j) of the ESA.

An experimental population is a geographically described group of reintroduced plants or animals that is isolated from other populations of the species. Species in experimental populations are treated as threatened, regardless of their designation elsewhere, allowing us to develop special rules under section 4(d) of the ESA.

For example, the 10(j) rule for the gray wolf population that was reintroduced into the northern Rockies had fewer take prohibitions than restrictions that applied to listed populations elsewhere.

Flexible management of this experimental population allowed landowners and livestock producers to harass wolves that threatened livestock, and in some cases also allowed authorities to kill wolves that preyed upon livestock.



*Green sea turtle in sea grass.*

These prescribed actions reduced potential economic threats to ranchers while benefiting the recovering wolf population. Thanks to its recovery, the gray wolf population in the northern Rockies has been delisted.

### **Recovery efforts occur throughout the FWS**

FWS programs are leading recovery efforts for species. For example, many of our national fish hatcheries are raising endangered or threatened species such as Higgins' eye pearly mussels at the Genoa National Fish Hatchery in Wisconsin. Many national wildlife refuges such as Florida's Hobe Sound were established to protect listed species such as green sea turtles and loggerheads but also benefit a range of bird and plant species. The Partners for Fish and Wildlife program offers technical and financial assistance to private landowners to voluntarily restore wetlands and other habitat. The Partners program emphasizes the reestablishment of native vegetation and ecological communities for the benefit of fish and wildlife in concert with the needs and desires of private landowners. Our Law Enforcement program focuses on potentially devastating threats to wildlife by investigating wildlife crimes, regulating wildlife trade, helping us understand and obey wildlife protection laws, and working in partnership with international, State, and Tribal counterparts.

### **Who else helps to recover species?**

The FWS has cultivated recovery partnerships with the conservation community. For example, we established a national partnership with the Center for Plant Conservation, which has expertise in conserving plants. Founded in 1984, the Center is supported by a nationwide consortium of 29 botanical gardens and arboreta. With about one of every 10 plant species in the United States facing potential extinction, the

Center is the only national organization dedicated exclusively to conserving rare native plants.

The FWS enjoys a conservation partnership with the Association of Zoos and Aquariums. Zoos and aquariums are important partners in propagating and reintroducing listed species, such as Wyoming toads, Puerto Rican crested toads, Karner blue and Oregon silverspot butterflies, desert fishes such as Moapa dace, and insects such as American burying beetles. An added benefit of these recovery projects is the opportunity to reach millions of zoo and aquarium visitors about endangered species.

### **What are some examples of recovery efforts?**

Delisted in 2001 due to recovery, the Aleutian Canada goose has benefited from both habitat restoration and reintroduction into formerly occupied habitat. Translocating young bald eagles into formerly occupied habitat was one factor in recovering the species to the point of delisting. Captive propagation has increased the numbers of whooping cranes and red wolves. Land acquisition and cooperation among the FWS and the States have protected important habitats for Houston toads and other amphibians.

### **Do recovery programs work?**

Yes, but recovery is a challenge that takes time. We are attempting to halt or reverse declines that in some instances have been more than 200 years in the making. Even in the face of a substantial increase in the number of species listed during the past decade, recovery efforts of the FWS, other Federal agencies, States, Tribal governments, conservation organizations, businesses, and private landowners have halted the decline of many species. Of all the species listed since 1968, less than one percent have been recognized as extinct, and subsequently removed from the list. The fact that 99 percent of listed species have not been lost speaks to the success of the ESA in conserving species that are at risk of extinction.

**U. S. Fish and Wildlife Service  
Endangered Species Program  
4401 N. Fairfax Drive, Room 420  
Arlington, VA 22203  
703-358-2171  
<http://www.fws.gov/endangered/recovery/>  
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