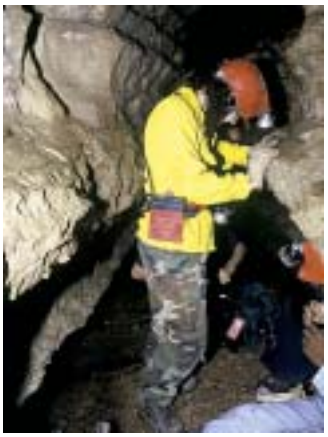
Three Decades of Recovery

by Martin Miller

Missouri bladderpod
Photo by Jim Rathert/Missouri Department of Conservation



Biologists conducting research on the Ozark cavefish at Logan Cave National Wildlife Refuge, Arkansas.
USFWS photo by John and Karen Hollingsworth

The theme of this issue of the *Bulletin* is the foundation of the Endangered Species Act: recovery. In the ESA, Congress declared that threatened and endangered "fish, wildlife, and plants are of esthetic, ecological, educational, historical, recreational, and scientific value to the Nation and its people." Based on this finding, Congress enacted "a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved" and "a program for the conservation of such endangered species and threatened species." With over 1,200 threatened and endangered species in the United States, fulfilling the purposes of the ESA is no easy matter. Although recovery of so many species may seem daunting, when examined more closely there is good cause for optimism and inspiration. This year, the 30th anniversary of the ESA, is a natural point at which to reflect on the progress of endangered species recovery efforts.

Much has been written about whether the ESA is "working." These debates have often focused on the regulatory impacts of the ESA or the fact that few species have been removed from the List of Threatened and Endangered Species while several others have become extinct. However, in gauging the law's success, it's important to consider the significant improvements in status for many species; the capacity of the Fish and Wildlife Service and NOAA-Fisheries (the two agencies charged with administering the ESA), along with our many partners, to carry out recovery programs for the growing number of listed species; and the increasing challenges we all face in addressing ecological threats.

When considering simple figures, such as the number of species that have been fully recovered and the number that have become extinct, it's instructive to look behind the statistics. Although only a handful of species have been removed from the List of Endangered and Threatened Species, the Service has identified over a dozen more species that have reached or are nearing their recovery goals and may be delisted in the near future, such as the prairie bush clover *(Lespedeza leptostachya),* populations of the gray wolf *(Canis lupus),* and the Magazine Mountain shagreen snail *(Mesodon magazinensis)*. Yet even for these species, the story of recovery is dramatic not because the final milestone of full recovery was achieved but because of the challenges that were met along the way. One article in this edition, "Species on the Brink of Recovery," describes the path to recovery for several species that have reached or are nearing their recovery goals.

Seven species on the U.S. list have probably become extinct since passage of the ESA. In addition, 28 other listed species may be extinct (U.S. Fish and Wildlife Service 2003). Although some of these species either were already suspected of being extinct or were on the brink of extinction at the time they were added to the list, the loss of these species is still cause for alarm. However, when it comes to the potential to prevent extinction, there is a strong case that the glass is more than half full. In an independent study, it was estimated that, without the ESA, 192 species might have been expected to become extinct from 1973 to 1998 (Schwartz 1999). For some species, halting their decline and holding off extinction in order to preserve the

The gray wolf represents one of the most successful recovery stories in the three decades since passage of the Endangered Species Act.
Corel Corp. photo

opportunity for further recovery in the future is an extremely difficult task. It is challenging but possible, and a clear example of recovery progress. The article "Preventing Extinction" examines a few of the species we are working to save from the brink of extinction.

Most examples of recovery success fall between the ultimate goal of achieving full recovery and the intermediate goal of stabilizing a species' status to prevent imminent extinction. The Service has reported over 500 U.S. species in stable or improving status (U.S. Fish and Wildlife Service 2003). While this number is only about one-third of the listed species, it demonstrates that many species are significantly better off than they were at the time of their listing under the ESA. It represents the progress of recovery efforts by many agencies, organizations, and individuals.

Whatever measure of recovery success one might use, it's important to consider the difficulty and magnitude of the job. The difficulty varies from species to species, depending on the status when recovery efforts begin, the knowledge of the species' life history and the threats it faces, the complexity of necessary recovery actions, the financial and other resources available, and the level of public support for recovery of the species. It's also important to consider the generally long period of time necessary to achieve full recovery. The biology of some species, particularly long-lived species that are late-maturing and have low reproductive rates, establishes an inherently long time frame for recovery. Habitat restoration, the propagation and establishment of new populations, and other complex recovery actions may require decades. Acquiring adequate knowledge, resources, and support, and conducting the planning needed even before recovery actions can begin, also may require considerable time. The article "A Journey of a Thousand Steps" addresses these difficulties.

As much as recovery is about species, it is also about people–those who make recovery happen. The center article in this edition, "Recovery Champions," features Service employees who have been recognized for their significant contributions toward the recovery of endangered and threatened species. We are looking forward to expanding this program to recognize state, federal, and tribal agency employees, conservation organization members, and other partners for their work.

There have been many successes in recovering our nation's listed species, but there are also many species that require more attention. At last count, the Service reported 417 species that are still declining (U.S. Fish and Wildlife Service 2003). It is by duplicating the efforts illustrated in this issue of the *Bulletin* that we will achieve full success in recovering more of the growing number of listed species.

Recovery success will continue to be measured in different ways by different people for different purposes. If measuring recovery success is intended as an assessment of the possibilities for improving the status of our living resources, then the answer is clear. The articles in this issue of the *Bulletin* show that the Service, NOAA-Fisheries, other federal agencies, states, tribes, local governments, conservation organizations, businesses, and individuals are successfully recovering many species across the country.

References:

M.W. Schwartz, 1999, Choosing the Appropriate Scale of Reserves for Conservation, Annual Review of Ecology and Systematics, 30: 83-108.

U.S. Fish and Wildlife Service, 2003, *Recovery Report to Congress, Fiscal Years 1997-98 and 1999-2000,* Washington, D.C. [This report is available via the Internet at http://endangered.fws.gov/recovery/reports_to_congress/97-2000/index.html.]

Until recently, Martin Miller was Chief of the Branch of Recovery and Delisting in the Service's Endangered Species Program headquarters office, Arlington, Virginia. He is now the Endangered Species Chief in the Service's Northeastern Regional Office in Hadley, Massachusetts (martin_miller@fws.gov; 413/253-8647).