Mission Impossible: Saving All Endangered Species

A brochure put out recently by the U.S. Fish and Wildlife Service (FWS) shows photos of some of the creatures that have been saved from extinction by the 19-year-old Endangered Species Act: There's the American bald eagle, which has bounced back from a low of 400 nesting pairs in the 1960s to 3000 pairs today; the whooping crane, which has grown from a flock of 20 to 200; and the Lange's metalmark butterfly, which has multiplied from 20 to 1200. But what the glossy brochure doesn't say is that

for almost every success story under the Endangered Species Act, there are many more plants and animals in the United States that are hanging on by a thread—and in some cases going extinct while they languish in bureaucratic limbo.

This week, a new report from the U.S. General Accounting Office (GAO) fills in some of the details missing from the brochure: The FWS and the National Marine Fisheries Service have placed more than 650

species of domestic plants and animals on the list of endangered or threatened species, but another 600 that the services agree are just as vulnerable have yet to be listed. The reason? The agencies haven't completed the paperwork. And 3000 more species remain on a waiting list pending a full investigation. "At this rate, we will lose species faster than the government can list them," says Representative James H. Scheuer (D–NY), who requested the report.

The criticism comes at a time when the Endangered Species Act is facing a tough battle to win renewal in Congress-a vote that most observers say will be put off until next year, after the election. "Virtually no one at this point is saying that the act is working just fine," says Mark Rey, executive director of the American Forest Resource Alliance, a timber industry organization. A well-organized coalition of timber, ranching, mining, and development interests oppose the act, and the last thing such critics want is the listing of more species faster. "We're in a double whammy," says Representative George E. Brown Jr. (D-CA). "On one side, we're getting a lot of objections to the listing of endangered species because of the impact on development in various areas. On

the other side, we're getting the GAO saying we're not doing an adequate job."

The problem, say those who favor the act, isn't with the law itself but with the way it is being administered. "I'm a supporter of the act—with a reservation: It ain't working," says Scheuer. Rare plants and animals are slipping through the cracks, he charges, because federal agencies don't have enough staff or money to list all endangered organisms on a species-by-species basis—much less protect are the last remaining members of their genus. The agencies are required by law to use only scientific data, as opposed to economic or political information, to determine whether a plant or animal is endangered or threatened. But those data aren't always complete or easily accessible, a circumstance that slows the pace of listing even more: "At the present pace of listing activity, it will take the FWS until 2006 to list these species [the 600 on the waiting list] as endangered or threatened, even if no additional species are determined to be in need of protection," says the GAO report.

Dead on arrival. Unfortunately, the slow pace of listing often means that by the time a creature makes the list, it is usually in bad shape. "You have to wait until things are ready for the emergency room," says University of Nevada biologist Peter Brussard, president-elect

of the Society for Conservation Biology. And, not surprisingly, some species don't make it. The Texas Henslow sparrow and a score of plants, such as certain species of goldenrod, foxglove, and watercress, went extinct while waiting.

And getting listed is only half the battle. The GAO report also notes that federal agencies have taken action to protect the environment where less than 20% of endangered plants and animals live. "Getting it on the

list doesn't necessarily save it," admits Georgia Parham, spokeswoman for the FWS.

But while there is general agreement that the act isn't working as well as it should, there is no consensus on how to fix it. To the act's friends, the obvious solution is more funding. But that is "very unlikely," says Brown. "I'm extremely pessimistic that the situation will improve." But he and Scheuer are among a growing number of people who think the solution may lie not in listing species one-by-one, but by amending the law to allow the agencies to start protecting habitats inhabited by many different species of plants and animals instead.

Brown also is considering incentives to universities and the research community to develop better, more accurate, databases on endangered species, which would help speed up listing. "There are ways the act could be strengthened and improved upon," agrees biologist Brussard. But for now he is among those who are in the unenviable position of supporting the act because they say it's better than nothing. At the least, it has been a lifesaver for the eagle, the whooping crane, the grizzly, and a few others: "Right now, it's the only act we've got."

-Ann Gibbons



Intensive care. The bald eagle (*right*) is making a remarkable comeback, while the northern spotted owl is still on the critical list.

them. At least that's what the federal agencies told the GAO, according to the report. (At *Science*'s press time, agency officials declined to comment on the report because it had not been officially released.)

Triage. The budget is indeed limited, environmentalists say. This year, the FWS had \$42.3 million and the National Marine Fisheries Service had \$8.2 million to manage 648 species. For comparison, notes Michael Bean, chairman of the wildlife program at the Environmental Defense Fund, the federal government spent far more this year—\$300 million to support state conservation programs for game and sportfish (although the funds came from taxes on firearms and fishing equipment). What's more, a few of the high-profile species already on the list absorb a disproportionate amount of the state and federal funds available. In 1990, nearly \$30 million was spent on just four species: the northern spotted owl, the grizzly bear, the least Bell's vireo, and the redcockaded woodpecker.

As a result, government officials have to make a wrenching Sophie's choice—to pick which species they will help to survive. In general, they give highest priority to species that are under the most severe threat and that

SCIENCE • VOL. 256 • 5 JUNE 1992