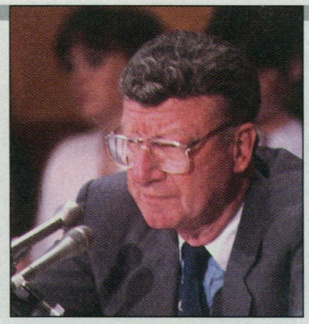
research agencies probably face the most difficult challenge in complying with the new law. An analysis of the first round of performance plans submitted by the pilot projects classified about one fifth as exemplary, including NOAA's, while a similar number lacked sufficient details to be useful for measuring performance. "Put another way," Groszyk wrote his boss, OMB Director Alice Rivlin, in an August memo, "if this were 1997, little or nothing worthwhile could be salvaged from agency plans such as these." But Groszyk has not lost faith. "The pilot projects have demonstrated that measurable, quantitative goals can be set in advance," he continued. "This validates a basic underlying premise of GPRA."



RON SACHS

Performance counts. Sen. Roth (R–DE) is author of 1993 law.

That conclusion doesn't surprise Genevieve Knezo, a science policy analyst at the Congressional Research Service who has followed GPRA closely. "Is the task of complying with GPRA really as daunting as some people think? I don't think so," Knezo told participants at OSTP's November workshop. "Congress and OMB do not want lots of new data or glossy tomes full of evaluations and measures for each research project [funded]. The goal of GPRA is to ensure that agencies develop standards and processes that allow Congress to assess the performance of the nation's investment in research and to use this information in budget making. If scientists expect public support, they need to justify their claim just like any other interest group."

–Jeffrey Mervis

TAXONOMY

New Rule Could Squelch Shipments

Each year the Canadian Museum of Nature loans U.S. scientists thousands of dead specimens, from fungi to mollusks, as part of a global flow of material that helps scientists characterize new species and identify those that could pose a threat to human health or agriculture. But a proposal by the U.S. Fish and Wildlife Service (FWS) to thwart trafficking in endangered and protected species could pinch that flow and hinder the spread of knowledge of the natural world by making it impossible to ship some specimens and by raising the cost of bulk shipments. The museum has served notice, in a letter to FWS Director Mollie Beattie, that the rule would mean an "almost complete cessation of specimen loans from Canadian museums to any institution in the United States." And it's not just one country's specimens that are at stake: "The rule will stifle much of the effort in the United States to document and conserve [global] biodiversity," asserts F. Wayne King, chief herpetologist at the Florida Museum of Natural History.

The regulation is intended to strengthen enforcement of three major wildlife protection laws—the U.S. Endangered Species Act, the Migratory Bird Treaty Act, and the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). To accomplish that goal, FWS would require extensive documentation of every specimen that enters or leaves the United States, dead or alive, by species name and country in which the specimen was first collected. The idea is to reduce or eliminate the multimillion-dollar illegal trade in endangered species such as parrots for sale as pets, crocodile skins for purses, and rhinoceros horns for use as aphrodisiacs.

But the proposal would also snare U.S. scientists conducting research, and more than 100 organizations and individuals wrote to FWS by last month's deadline for comments, decrying the impact of the rule on scientific activities. One problem is that many specimens are sent to U.S. institutions in order to be identified. That means prior knowledge—and documentation—of the species name is impossible. In addition, many developing countries send unidentified agricultural pests or potential disease vectors such as ticks or mosquitoes to U.S. experts to be evaluated. "This is an important and usually free service that ... would be prohibited by the regulations as proposed," says University of Kansas entomologist Charles Michener.

Scientists are also upset by FWS's intent to classify every shipment of eight or more "similar" specimens as a commercial transaction. Such a designation would subject large specimen shipments to import duties and taxes. While institutions often ship fewer than eight mammals or other large specimens at a time, King notes, "several hundred specimens might be contained in a series of minnows collected in a single seine haul or insects collected at an ultraviolet light trap." The classification of scientific transactions as commercial "simply reflects a total lack of understanding by [FWS] of the scientific enterprise," says Ross Simons, assistant provost for science at the Smithsonian Institution.

ASC

Bottled rage. Scientists say proposed rule would reduce exchange of species such as exotic snakes.

The new rules would also make U.S. scientists responsible for seeing that the material they receive in the mail contains all the requisite paperwork. "This would close down our whole operation," says Sievert Rohwer, a University of Washington ornithologist. Russian colleagues send Rohwer northern shoveler and green-winged teal ducks as part of a study on their molting and migration cycles. The birds are abundant in Russia, but happen to be listed under CITES as a protected species halfway around the world in Ghana. Shipping duck specimens requires a CITES permit, but "our collaborators look at this red tape, shrug their shoulders, and can't be bothered," says Rohwer. "Now we're going to be considered lawbreakers."

Scientists say they should be exempted from the proposed rule. Elaine Hoagland, executive director of the Association for Systematics Collections (ASC), argues that FWS could adopt a registry of research collections and scientific institutions established by the CITES governing body. By following the CITES guidelines, says Smithsonian's Simons, ASC and other organizations could accredit bona fide scientists for exemption.

But FWS officials disagree. "The government should not be in a position of determining who is a bona fide scientist," says Paul McGowan, an FWS attorney and former biologist who helped draft the rules.

Revisions to the proposed rule are expected in 6 months, and McGowan says FWS is considering "a number of solutions to facilitate the movement of scientific specimens" that stop short of a blanket exemption. In the meantime, scientists are upset at being asked to prove they are not smugglers. "There's something desperately wrong with the attitude that we're the enemy, like someone who imports massive quantities of baby green iguanas," says Harry Greene, chief herpetologist at the University of California, Berkeley's, Museum of Vertebrate Zoology. "We're honest scientists."

–Richard Stone