Chimps and Research: Endangered?

Conservationists and biomedical researchers are at odds over a petition to list chimpanzees as an endangered species; a proposal to survey wild populations in Africa draws fire

HOW MANY CHIMPANZEES live in the wilds of Equatorial Africa? No one knows, but it is a question that has put scientists in the biomedical and conservation communities at each other's throats, pitting the interests of laboratory workers clamoring for chimps for AIDS research against field biologists who are watching man's closest relative slip toward extinction. In the coming weeks, the federal government must decide whether or not chimpanzees deserve greater protection under the law.

Without more protection, conservationists fear the chimpanzee will soon become extinct in the wild, a victim of habitat destruction and exploitation by man. Other scientists warn that more restrictions on the use of the chimp will bury medical experimentation under a mountain of paper work. Or worse, biomedical research on chimpanzees could be outlawed all together.

Pity the bureaucrats in the U.S. Fish and Wildlife Service who must now play King Solomon. The wildlife service was petitioned by the Humane Society of the United States, the World Wildlife Fund, and the Jane Goodall Institute to reclassify the chimpanzee from its current status of "threatened" to the more serious listing of "endangered." This would bring into play sweeping prohibitions on the taking, transporting, and use of these valuable animals. The government must rule on the conservationists' request by 4 November.

To make its job more interesting, the wildlife service received 54,250 comments on the proposed change. Only six letters opposed upgrading the chimp's status. Says Ron Nowak of the service: "I've never seen so many comments on reclassifying a species." Alas, only about 50 letters contained substantial information on populations in Africa. Most of the comments were preprinted postcards supplied by the Humane Society.

According to a report compiled by Geza Teleki of the Committee for the Conservation and Care of Chimpanzees, a central mover behind the current petition, there are between 150,000 and 230,000 chimpanzees in the wilds of Africa, with the majority living in the jungles of Gabon and Zaire, and the rest scattered among 19 other African nations. These estimates, however, are crude. "Nobody really knows how many chimps are out there," says Jane Goodall, whose 28 years of work with chimps in Tanzania has greatly advanced our understanding of the social lives of primates.

All sides seem to agree that the chimpanzee's decline is caused by the farming, mining, and timber harvesting that are gobbling up habitat in Africa. Hunting pressure is also a factor, since many Africans consider chimpanzees an appropriate source of "bush meat."

However, the conservationists have included another, more controversial, explanation for the decline they are witnessing. They charge that "the international biomedical trade is one of the greatest threats to the continued existence of wild chimpanzees." In his report, Teleki specifically mentions recent importations of chimps to Austria and Japan for research purposes. Goodall compares the practice to "the slave trade." She says that for every infant chimp captured alive, another six animals must be shot in the process, since adults will vigorously defend their young. Says Goodall: "It is a most cruel and wasteful thing."

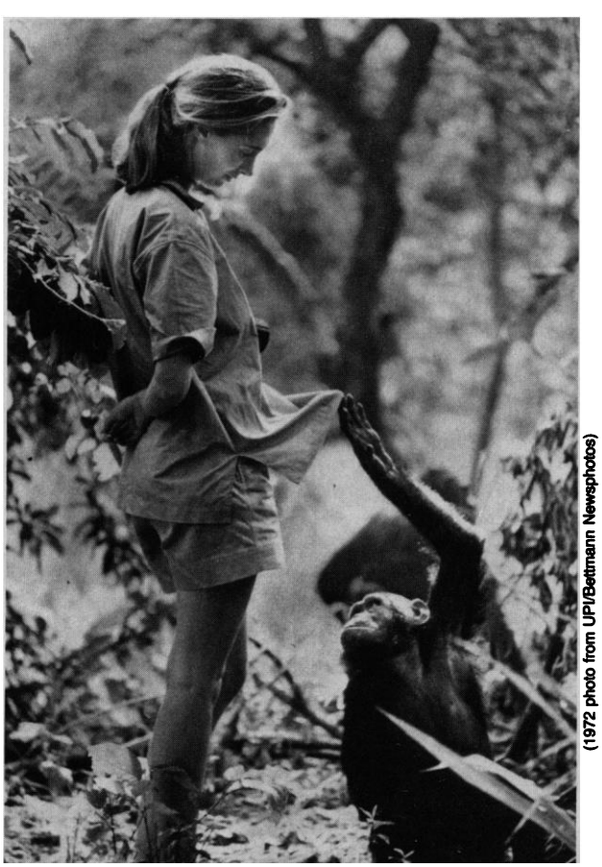
The charge that biomedical research is playing a hand in the chimp's ruin rankles many scientists, particularly officials at the National Institutes of Health (NIH) who are responsible for overseeing the animals in government-supported facilities. "The allegations are absolutely untrue," says George Galasso of NIH, who is also chairman of the Public Health Service AIDS Animal Model Committee.

"The reality is that conservation in the wild has nothing to do with biomedical research. . . . Loss of habitat is the issue," says Alfred Prince of the New York Blood Center, which maintains about 150 chimpanzees in Liberia. Prince adds that the number of chimpanzees depleted for biomedical use in the last few years has been "extremely modest."

Nevertheless, Prince and Goodall wrote a letter to *Nature* which opposed relaxing regulations on the importation of chimps for research and which argued that current captive populations in the United States should be able to meet the needs of science, even during the dark days of AIDS. After a decade on the back burner, a national chimpanzee breeding program finally got underway in 1986. For years, most captive chimps were kept on birth control because of limited space, but last year 51 infants were born.

Galasso says that in the last 10 years no chimpanzees have been imported into the United States for research purposes. Neither will NIH support any research on chimps captured in the wild since 1986.

In the face of what they consider insufficient information, NIH officials are firmly against changing the chimpanzee's status. "Making them endangered would endanger our research,"



(1972 photo from UPI/Bettmann Newsphotos)

Jane Goodall and friend. *Goodall calls shipment of chimps for biomedical research akin to "the slave trade."*

says Galasso. In a letter to the wildlife service, NIH director James Wyngaarden warns that reclassifaction could "significantly compromise our current ability to make selective use of chimpanzees in research to fight human disease."

Officials at NIH suspect that there may be more chimpanzees in Africa than the conservationists want to admit. They are particularly interested in so-called "urban chimpanzees," or animals kept as pets or impounded by governments which confiscate them from poachers and monkey smugglers.

"The day may come when there may be a need for more chimpanzees," says Galasso. To get numbers of its own, NIH wants to fund a survey of chimp populations in Equatorial Africa. But the project is being blocked by the conservationists.

"I'm very suspicious of any survey where they know what they want to find before they start. It's bad science," says Susan Lieberman of the Humane Society.

Lieberman views the survey as "a delay tactic." For his part, Galasso says he would hope the wildlife service would wait until the NIH survey is finished before they consider reclassifying the chimpanzee. The survey could take 4 years.

In any case, no announcement requesting the survey has been released. "It's in limbo until the chimpanzee politics comes to a head," says William Gay of the Division of Research Resources at NIH, who adds that he has been "writing and rewriting" the proposal since April.

In interviews, NIH officials complain that they are being portrayed by the conservation community as monsters who are prepared to pluck baby chimps from their mother's arms in Africa and bring them to the United States, where they would be loaded up with the AIDS virus. Says Gay: "We thought we were being helpful . . . but the rewards for trying to be helpful are limited at this point."

Yet NIH must take some of the blame for its bad public relations. Indeed, an early draft of the proposal to do the chimp survey mentions the possibility of working in Africa "where the use of chimpanzees remains relatively unrestricted." The document also refers to wild populations as "valuable renewable resources" that "provide a last resort reserve of animals that may be judiciously drawn upon to renew captive breeding programs." If NIH officials believed that someone like Goodall would not oppose such a plan, they were living in dreamland.

The whole affair is left up to the federal wildlife service. If the chimpanzee is reclassified as "endangered," the exemptions that allow for biomedical research will be revoked. Interstate commerce, even the shipping of blood samples, would require a permit. Says Richard Robinson of the wildlife service: "It's safe to say it would make life much more complicated for folks using chimps for biomedical research."

The wildlife service might not even be able to issue permits to scientists to do any medical experiments on chimpanzees. The Endangered Species Act is very specific about what kind of exemptions it allows.

If a permit is given, the scientific research must directly benefit the endangered species itself, says Robinson. No matter how broadly the laws are interpreted, injecting animals with AIDS vaccines would not fall under the heading of "benefits."

There is a way around the quagmire. Wildlife service officials mentioned the fact that the service could upgrade the wild populations of chimpanzees to an endangered listing, while leaving the captive populations at their current level of threatened. This population by population approach is not uncommon. The wolf, for example, is listed as endangered in all of the lower 48 states, except in Minnesota, where it is only listed as threatened. And wolves in Alaska are not listed at all. In a similar situation, Nile crocodiles that live on government farms in Zimbabwe were downlisted to threatened, while their fellow crocs in the wild remained endangered.

Currently about 950 chimps reside in facilities supported by the government. Of these, 350 have been put aside for breeding. Many of the remaining chimps were used during the development of a hepatitis vaccine, and some of these can be used to test promising AIDS vaccines and antiviral drugs. Whether there will be enough chimps is unknown. A lot will depend on the candidate vaccines and on how the chimps now infected with the AIDS virus fare. At present, researchers do not believe that infected chimpanzees will succumb to AIDS.

What will happen if biomedical researchers desperately plead for more animals? Frederick King of the Yerkes Primate Research Center at Emory University in Atlanta believes "species loyalty" may come into effect. "When the pandemic of AIDS becomes a truly frightening thing, humans will not stand by and watch their own species reduced while they protect animals that could help test vaccines and drugs. . . . It's not a very popular thing to say, but I think it's true." ■ WILLIAM BOOTH

AIDS Report Draws Tepid Response

President Reagan responded last week with a hem and a haw to the recommendations of his own AIDS advisory commission.

Reagan called for several studies, a couple of conferences, and one expeditious review. He directed all federal agencies to follow antidiscrimination policies that are already largely in place. Most of Reagan's "10 Point Plan" was not very pointed.

"We didn't give the President the report he wanted so he sent it off for more study," said Frank Lilly, a member of the commission and chairman of the genetics department at Albert Einstein College of Medicine in New York. Lilly said he was disappointed but not really surprised by Reagan's tepid response.

Instead of calling for legislation to outlaw discrimination against people infected with the AIDS virus, Reagan directed his Attorney General to expeditiously review how the federal government could encourage nondiscrimination. A presidential order or legislation to confront discrimination was central to the President's AIDS commission report (*Science*, 10 June, p. 1395).

Also central to the commission's recommendations was a plea to spend $1.5 billion a year for 10 years to stem the AIDS epidemic among the nation's 1.1 million intravenous drug users. Reagan responded with a call for bipartisan efforts to enact his various antidrug proposals.

The President did, however, order the Food and Drug Administration to immediately improve techniques to screen for the AIDS virus and to tell everyone who has received a blood transfusion since 1977 to get tested.

The reaction from critics of the Reagan Administration was predictably harsh. "They missed an opportunity to undue 7 years of neglect," said Jeffrey Levi of the National Gay and Lesbian Task Force in Washington. "They punted to the next administration."

However, AIDS commission member Beny Primm of the Addiction Research and Treatment Corporation in New York was more generous. "I don't see what else the man could have done. He's not God. This is only a beginning. . . . For a lame duck that appeals to conservatives to do this much, it's a blessing."

The chairman of the AIDS commission, retired Admiral James Watkins, who was largely responsible for shaping the report, called the President's reaction to his recommendations "an important first step."

■ WILLIAM BOOTH