



CHIMPS IN WAITING

Two years after biomedical research on chimpanzees ended, why have so few been retired to sanctuaries?

By David Grimm

Hercules and Leo are only 11 years old, but they've already come close to retiring twice. The two chimpanzees, born and raised at Louisiana's New Iberia Research Center, became lab animals at the State University of New York in Stony Brook in 2011. There they shared a three-room enclosure, where scientists inserted small electrodes into their muscles to study the evolution of bipedalism. In 2013, they were the subject of an unusual legal gambit. An animal rights group sued to declare the pair legal persons and retire them to a Florida sanctuary, but the effort failed.

Two years later, Hercules and Leo returned to New Iberia, where they mingled

with other chimps in outdoor domes with ladders and ropes. But retirement to a sanctuary, where they could climb real trees and have more room to roam, again seemed imminent: The U.S. government had just effectively ended invasive work on chimpanzees, and many observers expected all lab chimps to move to sanctuaries in short order. Yet today, Hercules and Leo, along with nearly 600 of their kind across the country, remain at research facilities. It's unclear when—or whether—they'll leave.

In the past 2 years, only 73 chimps have entered sanctuaries, and the slow pace has heightened tensions between the laboratory and sanctuary communities. There's plenty of blame to go around. Labs have dragged their feet, sanctuaries haven't ex-

panded quickly enough, and the government itself didn't have a concrete plan for retirement, despite setting the process in motion in the first place.

"The biomedical community has spent years defending the use of chimpanzees in research ... instead of figuring out how to retire them," says Brian Hare, an evolutionary anthropologist at Duke University in Durham, North Carolina, who has studied chimpanzee behavior at sanctuaries around the world. "Now we're scrambling to do something about it."

Some labs have argued that their animals would be better off staying where they are. Retirement to a sanctuary is a "silly decision," says William Hopkins, a neuroscientist at Georgia State University in



Research chimps like this one at a facility in Bastrop, Texas (left), have moved only slowly to sanctuaries such as Chimp Haven in Keithville, Louisiana, where chimps freely roam around an artificial termite mound.

Atlanta who has studied chimp cognition at research facilities for decades. “I don’t think that’s really helping the chimps, and I think it’s going to take a really long time.”

The National Institutes of Health (NIH) in Bethesda, Maryland, acknowledges the delay. “We share others’ frustration,” says Deputy Director James Anderson, whose division of strategic initiatives oversees the NIH Chimpanzee Management Program. “But we’re moving as quickly as we can for the safety of the chimps.”

For advocates of Hercules and Leo, and hundreds of other chimps stuck in limbo, that may not be quick enough.

THE U.S. GOVERNMENT has been in the chimpanzee business since 1960. That year, Congress created a national network of primate centers to conduct research on these animals—some bred in captivity, most taken from Africa. The country stopped importing wild chimps in 1973, but 13 years later, when the AIDS epidemic created a demand for humanlike models of infection, NIH launched a chimp breeding boom. By 1996, 1500 of the apes lived in research labs, an all-time high. Some were owned outright by NIH, whereas others belonged to universities, foundations, and companies.

Just 4 years later, the government began talking about retirement. A law passed in 2000 created a national chimpanzee sanctu-

ary, Chimp Haven in Keithville, Louisiana. The nonprofit sanctuary’s founders, who had worked with chimps in laboratories, felt that the highly intelligent animals—who, like humans, use tools, have some form of culture, and live in complex social groups—deserved to live out their lives in a setting designed wholly around their needs.

NIH got on board, pledging up to 75% of the cost of lifetime care for its chimpanzees that entered the refuge. (Other sanctuaries take privately owned research chimps.) But labs themselves decided whether the apes were ready for retirement.

That changed in 2013, when—in response to an Institute of Medicine report that concluded most invasive studies on chimpanzees were unnecessary—NIH announced it would phase out support for this type of research and retire most of its chimpanzees. Then in 2015, the U.S. Fish and Wildlife Service classified all U.S. chimps as endangered, effectively ending biomedical studies on them. NIH followed by declaring that all of its approximately 300 chimpanzees would be retired, though it gave no time frame. Experts assumed that the remaining 340 or so in private hands would follow suit.

Since then, however, only 51 government chimps and 22 privately owned chimps have entered sanctuaries—a pace far slower than anyone had anticipated. “Large numbers are still languishing in laboratories,” Rep-

resentative Lucille Roybal-Allard (D-CA) complained to NIH head Francis Collins last month at a congressional hearing. Collins said his agency was committed to chimpanzee retirement, but that the process had been “challenging.” “Realistically,” he said, “it’s going to take us several more years.”

The reasons are complex—and contentious.

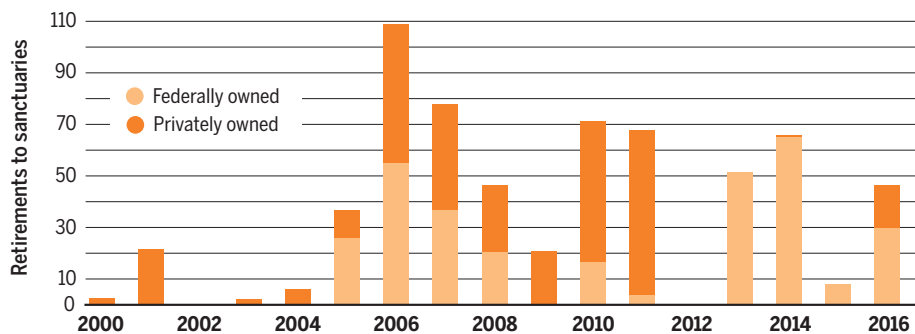
ON A SWELTERING DAY in mid-June, a group of about 20 chimpanzees emerges from a small forest and crowds around an artificial termite mound filled with applesauce and Kool-Aid. They seem to be negotiating over the food: Some scream, some wave their hands, and some climb 20-meter-tall pine trees to avoid the ruckus. When everyone has had their fill, a few disappear back into the forest, while the rest take refuge from the heat in nearby cooling rooms.

Such a scene, which took place at Chimp Haven last summer, buoys the sanctuary community: It’s a picture of what life can be like when chimpanzees are free to roam and interact with each other on their own terms. Not every sanctuary can offer what Chimp Haven does, but many are trying.

One is Project Chimps, a new 95-hectare sanctuary among the wooded hills of Morgantown, Georgia. The nonprofit organization made headlines last year when it announced it would take all 220 of New Iberia’s chimpanzees—including Hercules and

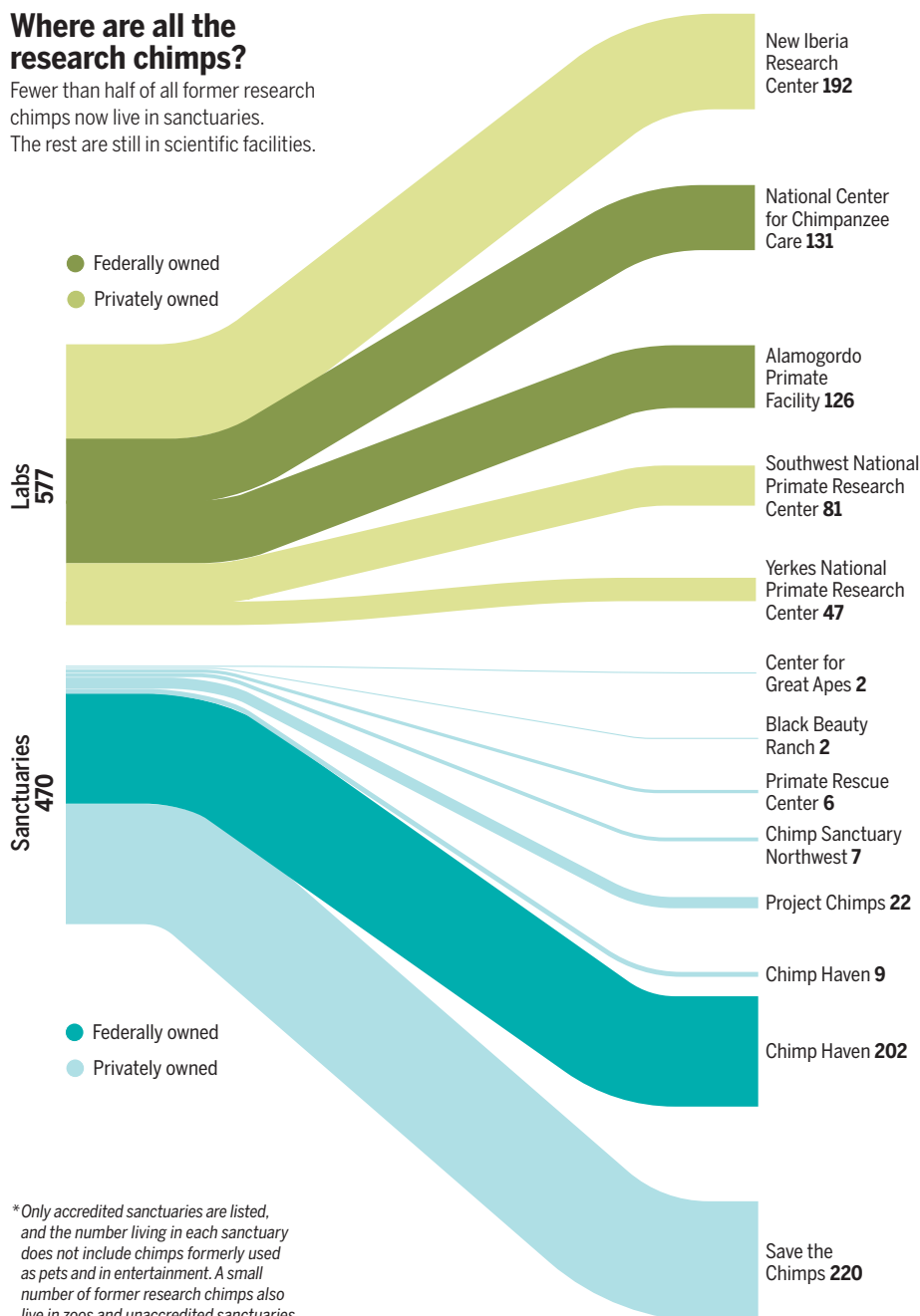
Ambling into retirement

The movement of chimpanzees from lab facilities to sanctuaries has been slow.



Where are all the research chimps?

Fewer than half of all former research chimps now live in sanctuaries. The rest are still in scientific facilities.



*Only accredited sanctuaries are listed, and the number living in each sanctuary does not include chimps formerly used as pets and in entertainment. A small number of former research chimps also live in zoos and unaccredited sanctuaries.

Leo—within 5 years, in the most ambitious chimp retirement ever attempted.

Perhaps too ambitious. Construction has gone more slowly than expected, and Project Chimps has taken only 22 of New Iberia's apes so far, rather than the 60 it agreed to accept by now. And although the sanctuary hopes to eventually give its animals access to the surrounding forest, they now live in enclosures that aren't much different from the domes at New Iberia: three "villas" with indoor-outdoor areas for climbing and swinging.

Some say the slow pace and exclusive contract blocked other sanctuaries that could have taken some of New Iberia's apes. Project Chimps Co-Founder and President Sarah Baeckler Davis left the organization last month, although the sanctuary would not comment on the reasons.

Funding also has been a challenge. Like other sanctuaries, Project Chimps relies on a mix of grants and public donations. Interim President Ben Callison says it will cost about \$6.4 million to build new facilities, not to mention the expense of providing food, toys, and veterinary care for the apes; other sanctuaries spend \$16,000 to \$20,000 per chimp per year on those costs. That could mean more than \$3 million in annual expenses for Project Chimps once all New Iberia's animals are in residence. But New Iberia has only agreed to contribute a one-time payment of \$19,000 per chimp, with no funding for lifetime care.

Other sanctuaries are scrambling to raise cash as well. Even Chimp Haven, which has an agreement to take all NIH chimps and so has some guaranteed funding during their lifetimes, pays for all construction out of its own pocket. Accommodating the 250-odd NIH chimpanzees still in research facilities could cost \$17 million, says the sanctuary's president, Cathy Spratz.

Transportation is another bottleneck. Only four to 10 chimps are typically moved at a time because they can be aggressive and must be housed in individual cages; sanctuaries also prefer to keep them in the same social groups they lived in while at the labs. Once at a sanctuary, chimps are typically quarantined for a couple weeks to make sure they have no transmissible diseases. Keepers then sometimes carefully ease them into larger groups, but reintegration isn't always easy. (When Hercules and Leo first returned to New Iberia, they didn't get along with the females they were housed with and had to be resocialized with a group of young males.)

Transporters also have to be mindful of the health of the apes, many of whom are geriatric and have been injected with hepatitis and HIV. "They're very social and sensitive animals," says NIH's Anderson, who notes that many suffer from diabetes, kid-

ney disease, and heart disease. “Retirement has to be done in a safe way, because we owe a lot to these chimps.”

All this slows transfers. The largest one on record—when Save the Chimps, a nonprofit sanctuary based in Fort Pierce, Florida, accepted nearly 260 chimpanzees from a private New Mexico lab—took almost a decade and cost \$5 million.

BUT RETIREMENT has been a long time coming, and critics say lab facilities should have prepared for it. Duke University’s Hare notes that a 1997 National Research Council report recommended a breeding moratorium, concluding that chimps had not proved as useful as expected for biomedical research. “The writing has been on the wall for 20 years.” Yet, Hare says, labs continued to insist the animals were needed, preventing sanctuaries from launching fundraising and construction. “It’s created a huge challenge for the sanctuary community,” agrees Save the Chimps Executive Director Molly Polidoroff.

Now, after the government has concluded the animals are not necessary for research, some labs still insist chimps are better off staying put. Neither the National Center for Chimpanzee Care (NCCC) at the MD Anderson Cancer Center in Bastrop, Texas, nor the Alamogordo Primate Facility in New Mexico—which together house the 257 government-owned chimps still in research facilities—would speak to *Science* for this story. But NCCC Director Christian Abee told the *Houston Chronicle* in 2015 that half of his chimps were geriatric and not up to the stress of transport. He has advocated for retiring the animals at NCCC, citing their bond with the facility’s experienced care staff (and vice versa), as well as NCCC’s outdoor treehouses and playgrounds, which aren’t much different than those at some sanctuaries.

Some labs housing privately owned chimps agree. “[Our researchers] strongly believe the chimpanzees currently in our care are in the best possible environment,” Lisa Cruz, a spokesperson for the Texas Biomedical Research Institute in San Antonio, which houses 81 chimps, told the *Chronicle* in the same story. “Just because it’s a sanctuary, doesn’t mean it’s better for the chimp,” says Georgia State’s Hopkins. “Prove to me you’re making their lives happier.”

Proving happiness is a tall order. Renowned primatologist Frans de Waal of Emory University in Atlanta says the small group housing found at many research fa-

cilities, with closely spaced geodesic dome habitats, “is a stress-causing design” because it forces chimps to hang out with, or at least see, animals they may want to avoid. De Waal says NCCC is as good as it gets for research chimps, but still doesn’t compare to facilities like Chimp Haven. “Whether the chimps are happier [at Chimp Haven] than elsewhere is another question,” he says. “They certainly look less agitated.”

NIH’s Anderson says his agency remains committed to transferring its animals. “They’re receiving great care at [NCCC], but we’ve made a commitment to move them to a federal sanctuary, and that’s a path they’re taking.”

Still, some say NIH, too, has lagged. A 2016 Government Accountability Office report found that the agency had not developed a clear plan for the transfer or effectively communicated its plans to lab



“Primadomes” housing chimps at New Iberia Research Center in Louisiana (left) may not look much different from “villas” at the Project Chimps sanctuary in Morgantown, Georgia, but the sanctuary hopes to eventually allow forest access.

facilities. Anderson says his agency needed time but now has a concrete plan. It will begin with the Alamogordo center, which now houses 126 chimps, before moving on to the 131 at NCCC. “We think a 10-year time frame for retiring all of these animals is realistic.”

FOR THE CHIMPS in private hands, money rather than a government commitment may shape the future. With research funding no longer available and overhead payments from NIH dwindling, private facilities like Texas Biomed and Yerkes National Primate Research Center in Atlanta, which houses 47 chimps, will have less and less financial incentive to keep their animals. Perhaps they’ll even help pay for sanctuary retirement. Or so people in the sanctuary movement hope.

Financial pressures were certainly at work in New Iberia’s decision. The research center’s director, Francois Villinger, says he sees the appeal of retiring his chimpanzees where they are, noting his facility’s large outdoor play areas and social groups of apes that have been stable for years. “When the Project Chimps staff came down here, they were surprised by how good the conditions were.” Yet New Iberia could no longer afford to pay for hundreds of chimps not being studied, he says, and did not want the public relations headache of keeping the animals.

He says New Iberia will do whatever it can to ease the transfer to Project Chimps. “It’s a beautiful and ideal property,” he says. “We just want to make sure they succeed.”

Project Chimps remains optimistic about the agreement, too. Financially, the sanctuary is now “solidly in the black,” says interim president Callison, and should have



room for up to 100 chimpanzees within a year. The final phase of construction, slated for next year, should be able to accommodate the rest, he says. “It’s a balancing act between getting them out as quickly as possible and giving them the best environment,” he says. “We want to grow smart.”

He hopes the arrangement will serve as a model for other lab-sanctuary partnerships. It took many years to build trust with New Iberia, he says. “After decades of being on opposite sides of the issue, we’re finally working together.”

In the end, not all research chimpanzees will make it to a sanctuary. Dozens die every year from old age and illness. But, if all goes according to plan, youngsters like Hercules and Leo should live to move to Project Chimps. Indeed, says Villinger, they should be on their way in a few months. ■

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