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Chimpanzees in Laboratories: Distribution and Types of Research

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Summary — This review presents the results of an informal 1993 survey of the distribution of chimpanzees (Pan troglodytes) in the world's laboratories, and the types of research conducted on them. Based on the available information, there are over 2200 chimpanzees in laboratories, most of which are located in several US facilities. Europe apparently has less than 200 chimpanzees housed in two facilities. Worldwide, an estimated 80% of the chimpanzees in laboratories are used in studies on AIDS and hepatitis. It is concluded that, if Europe terminated its use of chimpanzees in research, for either financial, moral or political reasons, the impact on experimental research would be relatively minor.

Key words: chimpanzees, Pan troglodytes, animal experiments.

The time is ripe for a re-evaluation of the exploitation of chimpanzees in laboratories. Abolitionists accept this readily, but many others are also deeply troubled by the plight of our closest relatives in the laboratory. The famous surgeon, Christiaan Barnard, tells of housing two chimpanzees next to each other for several months in anticipation of using them as unwitting donors of hearts for human patients. When the fateful day came and one was killed in his cage, the other wept bitterly and was inconsolable for days. "The incident made a deep impression on me," Barnard was quoted as saying. "I vowed never again to experiment with such sensitive creatures" (1).

The Humane Society of the United States (HSUS; Washington, DC, USA.) has sought to ensure that no more chimpanzees or other primates are taken from the wild for use in research. Several years ago, the HSUS was concerned that the US Federal Government was funding AIDS research on chimpanzees taken from the wild, which would have been a breach of Government policy. Moreover, they suspected that this research was taking place in Europe, away from the spotlight in

the US. Working with Jane Goodall, the HSUS was successful in harnessing the help of the US Congress on this issue. Specifically, in the 1989 Congressional Appropriation to the Department of Health and Human Services (the parent agency of the National Institutes of Health), the lawmakers stated that:

"No funds appropriated under this act or any other provisions of law shall be used by the National Institutes of Health, or any other Federal Agency, or recipient of Federal funds, and be expended on any project that entails the capture or procurement of chimpanzees obtained from the wild.

"For purposes of this section, the term 'recipient of Federal funds' includes private citizens, corporations, or other research institutions located outside the United States that are recipients of Federal funds."

A current HSUS project is targeting the taking of any species of primate from the wild for use in research. The cornerstone of this project is an investigation which was conducted in Indonesia into the cruelty of the

international trade in wild-caught primates. The HSUS is seeking a legislative remedy for this situation, along the lines of a "wild bird" bill that was enacted in the USA in 1992. In Europe, the British Union for the Abolition of Vivisection (BUAV; London, UK) is waging a similar campaign.

In June 1993, the HSUS sought to assess the current scope of chimpanzee use in laboratories. A number of questions, including where these animals were being held, in what numbers, and for what purposes, were considered. A number of published sources (for example, 2–4) were consulted, but to little avail. Consequently, the assessment relied heavily on telephone interviews with key primatologists and primate veterinarians, who, given the political sensitivities surrounding the primate research controversy, will remain anonymous. The resulting profile should be regarded as a rough sketch of the situation.

Only two biomedical facilities holding chimpanzees exist in Europe and between them they hold less than 200 individuals (Table I). The United States, on the other hand, has nearly ten times as many chimpanzees divided among more than a dozen laboratories (Table II). The New Mexico Primate Research Laboratory (NM, USA) held the highest number of laboratory chimpanzees, but recently sold most of its chimpan-

Table I: Numbers of chimpanzees in European laboratories

Laboratory	Number	
BPRC, The Netherlands IMMUNO, Austria	110 55	
Total	165	

BPRC = Biomedical Primate Research Centre.

zees to the White Sands Research Center (NM, USA).

Unfortunately, relevant information from outside the United States and Europe is extremely sketchy (Table III). Africa has at least two facilities holding chimpanzees, with a combined total of about the same number of animals as in Europe (~165). The circumstances at one of these facilities (Vilab II) are in flux owing to political instability in Liberia. The 200 or so chimpanzees in Japan are housed at Kyoto University and other (unknown) facilities. There is also speculation that a number of other countries, including China, have chimpanzees in laboratories.

Thus, worldwide, there are over 2200 chimpanzees in laboratories. The largest

Table II: Numbers of chimpanzees in US laboratories

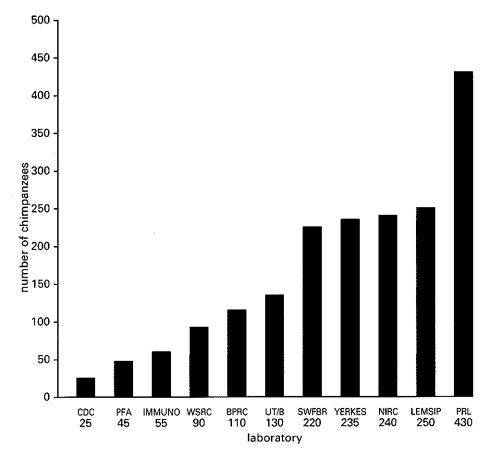
Laboratory	Number	
Primate Research Laboratory, New Mexico	430	
Laboratory for Experimental Medicine and Surgery in Primates,		
New York State	250	
New Iberia Research Center, Louisiana	240	
Yerkes Primate Center, Georgia (15 bonobos Pan paniscus)	235	
Southwest Foundation for Biomedical Research, Texas	220	
University of Texas at Bastrop, Texas	130	
White Sands Research Center, New Mexico	90	
Primate Foundation of Arizona, Arizona	45	
Center for Disease Control, Georgia	25	
Diagnon, Maryland	20	
Food and Drug Administration, Maryland	20	

facilities in Europe and the USA are shown in Figure 1. The two in Europe account for less than 10% of the worldwide total of chimpanzees in laboratories. Virtually all of these animals are common chimpanzees, Pan troglodytes, with only a few bonobos, Pan paniscus. Approximately 15 of the "chimpan-

zees" registered at the Yerkes Primate Center (GA, USA) are bonobos.

Approximately 80% of chimpanzees in laboratories are used in AIDS and hepatitis studies. Other types of studies include research into reproduction, malaria, river blindness and kuru. The primary studies on

Figure 1: Laboratories with the largest numbers of chimpanzees



CDC = Center for Disease Control, Georgia, USA; PFA = Primate Foundation of Arizona, USA; IMMUNO is in Austria; WSRC = White Sands Research Center, New Mexico, USA; BPRC = Biomedical Primate Research Centre, The Netherlands; UT/B = University of Texas at Bastrop, USA; SWFBR = Southwest Foundation for Biomedical Research, Texas, USA; YERKES = Yerkes Primate Center, Georgia, USA; NIRC = New Iberia Research Center, Louisiana, USA; LEMSIP = Laboratory for Experimental Medicine and Surgery in Primates, New York State, USA; PRL = Primate Research Laboratory, New Mexico, USA.

Table III: Numbers of chimpanzees in laboratories outside Europe and the USA

Laboratory	Number
Franceville Primate Centre, Gabon	100
Vilab II, Liberia	65
Japan	~190
Russia	not known
China	not known
India	not known
South Africa	not known
Cuba	not known
Mexico	not known

behaviour and/or cognition include the work of Boysen (5), Fouts & Fouts (6), Tomonaga et al. (7) and Hopkins et al. (8; Table IV). Little, if any, of this research currently takes place in Europe.

Behavioural/cognitive studies are typically non-invasive, and at least some of them can give helpful insights into the social and psychological world of chimpanzees. Accordingly, campaigners may consider at least some of these studies to be less objectionable than the more typical chimpanzee experiments; others may even consider them to be laudable. However, the nature of the research which is holding most chimpanzees in captivity is clearly research into diseases rather than into behaviour.

In conclusion, these data indicate that Europe has relatively few of the world's chimpanzee facilities and few of the animals

Table IV: Current behavioural/cognitive studies of chimpanzees^a in laboratories

Scientist	Facility	Speciality	Number of chimps	Chimp names
Boysen	Ohio State University, USA	Maths	5	Shebah Sarah
Fouts	Central Washington University, USA	Communication	5	Washoe Loulis Moja Tatu Dar
Matsuzawa	Kyoto, Japan	Perception	4	Ai
Rumbaugh	Yerkes Primate Center, Georgia, USA	Language	4	Kanzi Sherman Austin Lana

^a A few of the animals in this Table are bonobos (Pan paniscus), rather than chimpanzees (Pan troglodytes).

themselves. Given this situation, if Europe terminated its use of chimpanzees in laboratories, the impact on experimental research would presumably be relatively minor.

Political efforts to phase out chimpanzee use in Europe may be aided by purely financial considerations. The US science press reports that the Biomedical Primate Research Centre (BPRC; at TNO, Rijswick, The Netherlands) may close for lack of funds (see, for example, 9). If that happens, IMMUNO (Austria) would be the only remaining European chimpanzee facility. Campaigners also need to focus on the following:

- 1. some European countries apparently continue to serve as conduits for chimpanzees imported from Africa;
- 2. there is no international register for keeping track of chimpanzees in European laboratories;
- 3. there has been no law in Austria, the home of IMMUNO, that specifically sets standards for the housing and maintenance of chimpanzees in laboratories. 1

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