Life-Long Well Being: Applying Animal Welfare Science to Nonhuman Primates in Sanctuaries

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Nonhuman primates have become common in sanctuaries, and a few such facilities even specialize in their care. Sanctuaries can improve the well being of many unwanted primates, especially in terms of housing and socialization. However, diverse facilities call themselves sanctuaries, and they have varying conditions, care programs, and restrictions. In addition, a general lack of regulation of sanctuaries for nonhuman animals creates problems in enforcing even minimal standards. The application of animal welfare science in the sanctuary setting can help foster high standards and empirically based decision making. Sanctuaries offer excellent environments for studying primates without the limitations inherent in breeding, exhibition, and medical research facilities. However, some sanctuaries avoid scientific study. Many sanctuaries have little opportunity to study animal welfare in a systematic manner due to financial considerations or a lack of specific expertise among staff and volunteers. Most published sanctuary research involves reintroduction procedures at sanctuaries in source countries. Nevertheless, one chimpanzee sanctuary’s successes in performing long-term studies and using simple evaluation methods, such as check sheets, have demonstrated the benefits of applying animal welfare science to sanctuary-housed nonhuman primates.

It was an honor to receive an invitation to speak at this symposium dedicated to Dr. Sylvia Taylor. My interactions with Sylvia over the years included many discussions of nonhuman primate welfare and, more specifically, of how we could work together to measure well being in a scientific and systematic way. Sylvia always pushed the envelope, constantly thinking of novel ways to approach old problems and to determine exactly what makes a positive difference to primates in captivity. Her goal was
to improve primate welfare everywhere—in research facilities, zoos, the entertainment industry, roadside menageries, sanctuaries, and even in people’s backyards.

Sylvia strove to make the concept of psychological well being a useful and understandable tool for colleagues, professionals, technicians, and laypersons. She helped devise practical methods for developing, implementing, and assessing environmental enrichment programs. This practical approach is especially relevant to sanctuaries today.

Sanctuaries, wildlife rehabilitation centers, and refuges for nonhuman animals serve a much-needed purpose by providing for unwanted, neglected, abused, injured, or displaced animals. Whereas domestic animals in shelters may eventually find a caring new home, nondomestic animals should not become companion animals (pets). Sanctuaries may either rehabilitate them for release back into the wild or provide them with life-long care.

Nonhuman primates have become common animals in sanctuaries. They may come from the pet, entertainment, exotic animal breeding industries, or from research or exhibition establishments. After arrival at a sanctuary, they will usually spend the rest of their lives there. With their special diet, housing, social, and cognitive needs, they can be especially challenging to care for in the sanctuary setting, requiring special expertise. Therefore, some animal sanctuaries are specializing in providing care for nonhuman primates.

WHAT IS A SANCTUARY?

“sanctuary [place where wildlife is protected]” (MSN Encarta, n.d.). The term sanctuary applies to many different types of facilities. Facilities may call themselves sanctuaries simply to engender positive public perceptions and charitable giving. Some sanctuary associations have attempted to prevent perceived misuse of the term by defining a sanctuary as a refuge that does not breed animals or use them in exploitative, commercial activities such as entertainment, selling, trading, or recreational exhibition (American Sanctuary Association, n.d.; The Association of Sanctuaries, n.d.). However, the existing continuum of facility types has no clear demarcations between sanctuaries and nonsanctuaries. For example, many sanctuaries include some level of exhibition for educational and/or fundraising purposes, and many began as a collection of private pets. Ultimately, whatever the term applied to their holding facility, all captive, nonhuman primates deserve appropriate care and housing.

REGULATIONS, ACCREDITATION, AND SANCTUARIES IN THE UNITED STATES

The legal definition of sanctuary is “a place of refuge, where the process of the law cannot be executed” (‘Lectric Law Library, n.d.). Unfortunately, animal sanctuaries
sometimes meet this definition as well. Sanctuaries in the United States that follow
the strict definition given earlier (no breeding, exhibition, or selling) do not partici-
pate in any activities regulated under the Animal Welfare Act, so there are no re-
quired inspections by the U.S. Department of Agriculture (USDA) to enforce even
minimal legal standards. There may be no oversight at all, regardless of the size of
the sanctuary or the types of animals it holds. Many sanctuaries request courtesy
inspections by the USDA, and reputable sanctuaries set their own high standards.
However, the need for continuous fundraising places a heavy burden on sanctuary
staff and volunteers, with unpredictable funding sometimes resulting in cuts in
programmatic goals. The lack of oversight is thus most problematic for struggling
sanctuaries, where inadequate housing and care may occur and reliance on profes-
sional expertise is less common.

To combat these issues, a sanctuary may seek outside accreditation. Two sanc-
tuary associations in the United States (The Association of Sanctuaries and the
American Sanctuary Association) offer accreditation services. In addition, the As-
sociation of Zoos and Aquariums offers certification for animal refuges, and the
Association for Assessment and Accreditation of Laboratory Animal Care, Inter-
national may accredit facilities housing primates formerly used in research. The
latter two organizations have extensive experience in managing accreditation pro-
grams. The guidelines, inspection details, and reporting requirements vary for
each accrediting body, and only careful scrutiny will determine the efficacy of a
given organization.

ANIMAL WELFARE SCIENCE AND THE SANCTUARY

Information collected at sanctuaries could greatly enhance the study of animal
welfare. Without the restrictions imposed by exhibition, medical research, and
breeding programs, sanctuaries can have a greater variety of enclosures, group
compositions, and care programs. For example, expansive facilities and large
groups are possible when there is no need for frequent access to the animals for re-
search or for viewing by the public. Permanent sterilization of animals or the use of
birth control to prevent reproduction allows more leeway in forming social groups.
Sanctuaries may also have different philosophies regarding the provision of toys,
structures, and food. These differing aspects of the sanctuary environment provide
excellent opportunities for comparisons and evaluations.

In addition, the background, behavior, and health of some nonhuman primates
in sanctuaries make them especially interesting study subjects. Possible issues in-
clude a lack of appropriate socialization, limited or no experience with large or
outdoor enclosures, and extensive exposure to humans. Sanctuary primates may
also have age-related health problems and may display aberrant behaviors and in-
appropriate communication. Documenting the methods that eliminate or reduce
problem behaviors, identify and treat health conditions, and adequately acclimate
new individuals can assist in developing standard operating procedures for managing these animals. Sharing this knowledge, formally or informally, may improve the overall care of captive primates and enhance the public’s understanding of monkeys and apes.

Most studies on sanctuary-living primates have occurred in source countries and have mainly involved processes for rehabilitation and eventual release into the wild. Information on reintroduction programs is available for several species: orangutans (Fernando, 2001); capuchins (Suarez, Gamboa, Claver, & Nassar-Montoya, 2001); and chimpanzees (Goossens et al., 2005). Some information on health issues is also available on sanctuary animals. Jones, Mahamba, Rest, & Andre (2005) described a case of heart disease in a reintroduced bonobo, and Wolfe et al. (2002) found a higher prevalence of malaria in orangutans in captivity, prior to their reintroduction, than in orangutans from the wild, prior to their translocation. Because a commonly cited criterion for a good captive environment is the survival of the captive primate after release into the wild (Snowdon & Savage, 1986), information from studies intended to increase reintroduction success should also help improve the well being of primates who remain in captivity.

Descriptions of the resocialization of primates with little or no previous exposure to conspecifics have also come from sanctuary sources, usually as abstracts or newsletter articles. Cheyne (2006) correlated aberrant behaviors with the backgrounds of captive-raised gibbons in an Indonesian sanctuary, also including information on reducing such behaviors. Other authors have behaviorally characterized sanctuary spider monkeys (Anaya-Huertas & Mondragon-Ceballos, 2001); chimpanzees (La Prairie, 2003); and owl monkeys (Chambers, Gossett, & Evans, 2004). Cognitive studies completed in sanctuaries include investigations of social learning in primates (Custance, Whiten, & Fredman, 2002); personality structure in chimpanzees (King, Chamberlan, & Courage, 2005); and imitation in rehabilitant orangutans (Russon & Galdikas, 1993).

Unfortunately, the scientific study of nonhuman primates in sanctuaries in the United States is virtually nonexistent. Areas in need of such research include (a) long-term acclimation to the sanctuary setting; (b) comparison of behavior patterns related to early environment; (c) species, sex, and age differences in primates with resistant aberrant behavior patterns; (d) health issues, including age-related problems in sanctuary primates; and (e) responses to environmental variables such as enclosure size and furnishings. Some sanctuary directors do not allow any such studies because they view all scientific endeavors as “using” the animals. Others permit only noninvasive, observational studies. Most sanctuaries do not have the available staff and/or expertise for carefully planned empirical studies of animal welfare. Financial considerations usually preclude the hiring of personnel for such purposes. Some sanctuaries have relationships with animal behavior professionals who are able to spend a portion of their time studying the sanctuary’s primates, but students from local universities are more likely to be an available resource. These
students, as interns or volunteers, can assist with behavioral observations, enrichment, and care; however, their assistance may be ineffective unless the sanctuary staff or university advisors have time to train and supervise them.

CHIMP HAVEN AND ANIMAL WELFARE SCIENCE

Chimp Haven is a sanctuary for chimpanzees no longer wanted in research, as pets, or in entertainment. Creation of both the facility and its animal care program—using the highest standards—involves the expertise of professionals in chimpanzee behavior, facility design, and health care. The behavioral management program includes environmental enrichment, positive reinforcement training, and behavioral assessments; a full-time, experienced veterinarian is on staff. However, even with this level of commitment to the psychological and physical well being of the residents, conducting animal welfare studies is a challenge, due to staffing and financial limitations. Behavioral staff members spend most of their time monitoring new arrivals, implementing social group introductions, and providing training and enrichment.

In spite of these limitations, we have successfully used several methods to collect data on the acclimation of our chimpanzees to their new home. One of the most useful techniques was the development of a behavioral survey, completed by the sending institutions, to provide information on the general behavior patterns, preferences, and abnormal behaviors of animals relocated to the sanctuary. Comparing this information with data collected several months after an animal’s arrival indicated that at least some individuals showed reduced abnormal and aggressive behaviors and increased social behaviors after acclimation to the sanctuary setting.

To determine space utilization by our chimpanzees, who have access to various indoor and outdoor enclosures, the care staff completed a simple location check-sheet at intervals throughout the day and night. The results documented both association patterns and changes in preferred locations over time (increased outdoor and arboreal locations). Formal behavioral observations using a laptop computer have also demonstrated changes in behavior over time.

In addition, a group of graduate and undergraduate students volunteered to assist with observations before and after the release of 18 chimpanzees into a 5-acre forested habitat. Their data on foraging, socialization, and environmental effects should facilitate future management of our large habitats. Several local students also assisted with observations of enrichment device use and social interactions in a group of male chimpanzees.

Other sanctuaries with nonhuman primates may find equally skilled and willing students to help evaluate particular individuals or groups, differences in enclosures, or changes in management techniques. Veterinary students are also likely to...
volunteer at a sanctuary if a senior veterinarian is available to provide training. Offering a stipend and/or housing will assist students coming from distant locations.

Having staff or volunteers available to observe nonhuman primates in sanctuaries can greatly assist in daily management. Observers testing a formal hypothesis may also notice many other interactions, and they can thus provide valuable information for use in making decisions. Most care staff observations occur during feeding and cleaning, but observations from “quiet” periods of the day help provide a more complete picture. At Chimp Haven, student observations from throughout the day helped balance staff concerns about aggression in a group of males. Although the males did display aggression during highly arousing events, they also showed positive social behavior during calmer periods.

**SUMMARY**

In summary, animal welfare studies conducted at sanctuaries could significantly improve the well being of sanctuary animals by providing information useful to daily management and by incorporating outside professional input when such expertise does not exist on staff. Indirectly, the knowledge gained at sanctuaries could enhance the welfare of all captive, nonhuman primates, especially with regard to long-term behavioral changes, age-related health issues, and the effects of various types of enclosures. Animal behavior experts and students could do much to bridge the research gap by offering their assistance to local sanctuaries.

**REFERENCES**


