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## The Issue of Contemporary Zoo Biopolitics The Case of Chimpanzees

Проблематика современной биополитики  
зоопарков. Случай шимпанзе

### Абстракт

Зоопарки регулярно представляются как центры образования, сохранения видов и научных исследований. Тем не менее живые существа многих видов, не принадлежащие к человеческому роду и содержащиеся в зоопарках, демонстрируют аномальное поведение и проявляют сниженный уровень благополучия. Биополитика оказывает существенное влияние на жизнь всех живых существ, не принадлежащих к человеческому роду и находящихся в неволе, однако наши ближайшие родственники – шимпанзе – вызывают особенно острые споры. Зоопарки сосредотачиваются на трех наиболее важных целях: сохранении видов, образовательной миссии и проведении научных исследований, которые часто используются как факторы, легитимизирующие содержание в неволе живых существ, не принадлежащих к человеческому роду. В настоящей статье рассматриваются сложные проблемы, связанные

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### Abstract

Zoos are often promoted as centres of education, conservation and research. Nevertheless, non-humans of many species kept in zoos often engage in abnormal behaviours and show signs of reduced welfare. Biopolitical considerations ultimately shape the lives of all zoo-housed animals, but our close cousins, the chimpanzees, evoke particularly high levels of controversy. Zoos focus on three most prominent objectives: conservation, education and research, which often are used to legitimize keeping non-humans in captivity. The article raises difficult issues connected with keeping chimpanzees in zoological gardens, including the urgent question as to whether they should be kept in zoos at all.

**Key words:** biopolitics, zoo, chimpanzees, bioethics, welfare

с содержанием шимпанзе в зоопарках, включая насущный вопрос о том, следует ли вообще их содержать в таких условиях.

**Ключевые слова:** биополитика, зоопарки, шимпанзе, биоэтика, благополучие

## Introduction

The topic of zoological gardens is undoubtedly one of the most controversial ones in the animal studies discourse. Numerous scholars have raised ethical questions regarding the relationship between humans and the nonhumans kept in captivity, resulting in the emergence of new ethical approaches which would promote the development of an improved theoretical apparatus of thinking about this issue.<sup>1</sup> The ongoing sixth mass extinction<sup>2</sup> gives extra urgency for implementing sustainable conservation, and zoos often announce themselves as key conservation agents. Nevertheless, despite the obvious contributions some which zoos have made to conserving species in the wild, they often end up perpetuating false beliefs, which can impede conservation efforts.<sup>3</sup> Visitors are becoming more and more convinced that zoos should play an educational role and more actively promote conservation efforts.<sup>4</sup> The days when it was considered ethically acceptable to house nonhumans in menageries solely for entertainment are long-gone.<sup>5</sup> Our knowledge about the behavioural complexity and intelligence of nonhumans is growing as well, enabling zoo caretakers to better care for the physiological as well as psychological needs of the ones under their care. Such knowledge is shaping a new model which lays the groundwork for much-needed changes in law and in practice.

<sup>1</sup> Jenny Gray, *Zoo Ethics: The Challenges of Compassionate Conservation* (Csiro Publishing, 2017); Dale Jamieson, "Against Zoos," in *Morality's Progress: Essays on Humans, Other Animals, and the Rest of Nature* (Clarendon Press, 2002), 166–76; Stephen R. Ross, "Captive Chimpanzees," in *The Ethics of Captivity*, ed. Lori Gruen (Oxford University Press, 2014), 57–76.

<sup>2</sup> Jeff Tollefson, "Humans Are Driving One Million Species to Extinction," *Nature*, vol. 569, no. 7755 (6 May 2019): 171–171, <https://doi.org/10.1038/d41586-019-01448-4>.

<sup>3</sup> Nina Viktoria Nygren and Sanna Ojalammi, "Conservation Education in Zoos: A Literature Review," *TRACE. Journal for Human–Animal Studies*, vol. 4 (2018): 62–76, <https://doi.org/10.23984/fjhas.66540>.

<sup>4</sup> Katie Roe, Andrew McConney, and Caroline F. Mansfield, "The Role of Zoos in Modern Society – A Comparison of Zoos' Reported Priorities and What Visitors Believe They Should Be," *Anthrozoös*, vol. 27, no. 4 (1 December 2014): 529–41, <https://doi.org/10.2752/089279314X14072268687808>.

<sup>5</sup> Roe, McConney and Mansfield, "The Role of Zoos in Modern Society."

A number of species, including carnivores, cetaceans, great apes and elephants, evoke a particularly high degree of controversy regarding the legitimacy of keeping nonhumans in captivity. These species generally have long lives, complex behaviour and require complex and spacious environments.<sup>6</sup> Chimpanzees (*Pan troglodytes*), with their behavioural complexity, inevitably constitute a major challenge for those keeping them in captivity, which results in a number of ethical questions about their imprisonment in captivity outside of sanctuaries.

The exploitation of chimpanzees as “pets,”<sup>7</sup> as well as their use in laboratories have led to international condemnation by animal welfare groups and has resulted in numerous legislations restricting the use of nonhuman primates (especially great apes) in research and as companion animals. Although these laws tend to focus more on improving the welfare of captive chimpanzees, some strive to set them free, such as the CHIMP Act in the U.S.,<sup>8</sup> which aims to outlaw the keeping of the species in laboratories. With this in mind, now is also the time to seriously reconsider the ethical ramifications of keeping chimpanzees and other nonhuman great apes in zoological gardens. This will, of course, lead us to confront powerful political and economic interests, or “biopolitics.”

Biopolitics, a concept first proposed by Foucault,<sup>9</sup> refers to an institutionalised or systemic set of ways of managing, influencing and controlling living organisms.<sup>10</sup> This theory has been widely discussed by scholars in terms of conservation and human-nonhuman relationship as a whole.<sup>11</sup> Biopolitics is understood here broadly as governance of life and death, and treated utilitarianly, as it is too internally intertwined to denote its clear boundaries. Such a concept is clearly relevant to zoos, as their main objectives rely on keeping nonhumans in captivity and controlling all aspects of their lives. Lives of nonhuman animals in zoos are unavoidably entangled in a wide range of external factors shaping biopolitical strategies that the institution implements in its practices towards them. The never-ending conflict between

<sup>6</sup> Jessica Pierce and Marc Bekoff, “A Postzoo Future: Why Welfare Fails Animals in Zoos,” *Journal of Applied Animal Welfare Science*, vol. 21, no. sup1 (31 August 2018): 43–48, <https://doi.org/10.1080/10888705.2018.1513838>.

<sup>7</sup> Melissa S. Seaboch and Sydney N. Cahoon, “Pet Primates for Sale in the United States,” *PLOS ONE*, vol. 16, no. 9 (8 September 2021): e0256552, <https://doi.org/10.1371/journal.pone.0256552>.

<sup>8</sup> Tom Harkin, Sen. [D-IA] “S.1561 – 113th Congress (2013–2014): CHIMP Act Amendments of 2013,” legislation, (15 November 2013), <https://www.congress.gov/bill/113th-congress/senate-bill/1561>.

<sup>9</sup> Michel Foucault, *Society Must Be Defended: Lectures at the Collège de France, 1975–1976* (Allen Lane, 2003).

<sup>10</sup> Matthew Chrulew, “Animals as Biopolitical Subjects,” in *Foucault and Animals* (Brill, 2017), 222–238, [https://doi.org/10.1163/9789004332232\\_011](https://doi.org/10.1163/9789004332232_011).

<sup>11</sup> Christine Biermann and Robert M. Anderson, “Conservation, Biopolitics, and the Governance of Life and Death,” *Geography Compass*, vol. 11, no. 10 (2017): e12329, <https://doi.org/10.1111/gec3.12329>.

the nonhumans' individual interests and zoos' priorities is intertwined in a much broader context which includes species conservation, institution's interest, visitors' expectations and entertainment, funding, economical and power games, publicity, and many more. An individual animal is easily lost in this chaos of forces, which are often disguised or even almost impossible to pinpoint. Nonhumans additionally lack the ability to advocate for themselves and are treated either as means to an end or as masses – not as individual, sentient beings. This is exactly why it is crucial to shift the focus of the discussion from the wide picture to the nonhumans themselves and their private interests.

The aim of this article is to assess how the biopolitical goals of zoological gardens are really attained in order to determine whether the impoverished lives that zoo-housed chimpanzees live are actually a sacrifice worth making within the institution's discourse at very least, as from the deontological point of view there is no doubt in our minds that it clearly is not. Nevertheless, as private judgements might differ, a thorough review of the institution's workings is certainly needed.

## The Biopolitics of Contemporary Zoos

Whilst nowadays the primary aims of zoos are advertised as orientated towards conservation, education and research, we should not forget that the origins of this institution were mediaeval menageries in Europe, 'living museums' meant to serve as status displays for powerful people. These expanded exponentially in colonial times, when colonizers were able to capture and transport 'exotic' animals by their thousands to house in zoos. As the focus was primarily the entertainment of visitors, minimal or no attention was usually given to the welfare of zoos' residents. These nonhuman 'playthings of the powerful' were often kept in cramped, solitary conditions and 'cared' for by untrained personnel having little or no knowledge of their needs and nature.<sup>12</sup> Unfortunately, although attitudes and laws have changed and much effort has been made to improve the situation,<sup>13</sup> these problems are still present, if to not as extreme a degree, in the great majority of zoos. The first limited efforts to improve nonhuman welfare were initiated in the nineteenth century,<sup>14</sup> but only in the last four decades has the international zoo community put serious effort

<sup>12</sup> For a historical overview see Ben A. Minteer, Jane Maienschein, and James P. Collins, *The Ark and Beyond: The Evolution of Zoo and Aquarium Conservation* (University of Chicago Press, 2018), 1–39.

<sup>13</sup> Gray, *Zoo Ethics*, 11–15.

<sup>14</sup> Minteer, Maienschein, and Collins, *Ark and Beyond*, 2.

into addressing these concerns.<sup>15</sup> This shift represents, however, a relatively new, superficial layer on the surface of the institution's long history. The visitors' pleasure remains the top priority for the majority of zoos, often directly interfering with the institution's obligation to provide for the needs of its nonhuman residents.<sup>16</sup> In some tragic and highly publicised recent cases,<sup>17</sup> escaped chimpanzees and other great apes have even been summarily executed to avoid any potential risk to the public (even including relatively harmless youngsters).

Zoos, of course, often advertise their public service function in the form of education, research opportunities and conservation. According to international accrediting organisations such as the AZA and the EAZA, the first biopolitical aim of zoological gardens is conservation. Zoos focus primarily on *ex situ* breeding programmes, which are supposed to safeguard the genetic diversity of endangered species for potential future reintroductions,<sup>18</sup> but they often support *in situ* programmes as well.<sup>19</sup> Nevertheless, the ethical correctness of keeping these animals as 'museum pieces' who are often unable to fulfil their psychological needs while their habitats are being destroyed is becoming increasingly controversial.<sup>20</sup> Questioning whether this is not deconstructing the whole idea behind zoos' alleged conservatory role seems appropriate.

Many zoos, when claiming to care for their nonhuman charges,<sup>21</sup> advertise their adherence to the 'Five Freedoms',<sup>22</sup> in which the nonhumans are protected from (1) hunger, thirst and malnutrition, (2) discomfort and exposure, (3) pain, injury and disease, (4) fear and distress, and (5) are given the freedom to express natural behaviour. Theoretically, as is the case in qualified sanctuaries, the visitors' entertainment should be of secondary importance, but unfortunately this is

<sup>15</sup> Nygren and Ojalamm, "Conservation Education in Zoos," 62.

<sup>16</sup> P. M. C. Stevens and E. McAlister, "Ethics in Zoos," *International Zoo Yearbook*, vol. 38, no. 1 (2003): 94–101, <https://doi.org/10.1111/j.1748-1090.2003.tb02068.x>.

<sup>17</sup> Imogen West-Knights, "One Swedish Zoo, Seven Escaped Chimpanzees," *The Guardian*, 5 December 2023, sec. World news, <https://www.theguardian.com/world/2023/dec/05/one-swedish-zoo-seven-escaped-chimpanzees>.

<sup>18</sup> Tania C. Gilbert et al., "Contributions of Zoos and Aquariums to Reintroductions: Historical Reintroduction Efforts in the Context of Changing Conservation Perspectives," *International Zoo Yearbook*, vol. 51, no. 1 (2017): 15–31, <https://doi.org/10.1111/izy.12159>.

<sup>19</sup> Frank Rietkerk and Jeffrey J. M. Pereboom, "Editorial: Conservation of Great Apes," *International Zoo Yearbook*, vol. 52, no. 1 (2018): 9–15, <https://doi.org/10.1111/izy.12202>.

<sup>20</sup> See Pierce and Bekoff, "Postzoo Future."

<sup>21</sup> See "EAZA Code of Ethics," 2015, <https://www.eaza.net/assets/Uploads/Standards-and-policies/EAZA-Code-of-Ethics2015.pdf>; "Code of Ethics: Association of Zoos & Aquariums," 2017, <https://www.aza.org/code-of-ethics>.

<sup>22</sup> David J. Mellor, "Updating Animal Welfare Thinking: Moving beyond the 'Five Freedoms' towards 'A Life Worth Living,'" *Animals*, vol. 6, no. 3 (March 2016): 21, <https://doi.org/10.3390/ani6030021>.

not always the case, as many zoos still organise circus-like shows with animals trained to do tricks.<sup>23</sup> Zoo animals are often housed in impoverished environments, which results in boredom, frustration and the development of abnormal and stereotypical behaviours.<sup>24</sup> Given that zoos often advertise their importance in educating the public about nonhuman behaviour, this presents a contradiction: frustrated individuals displaying stereotypic behaviours (i.e., chimpanzees engaging in coprophagy or overgrooming themselves) give visitors a crooked view of their species' nature.<sup>25</sup>

The biopolitics of contemporary zoos is a result of a complex entanglement of historical and modern factors. Although certainly commendable attempts at reform have been achieved, and modern aims of the institution seem to be just, it is difficult if not impossible to negate the anthropocentric origin of the institution, which still has a profound influence upon it. Continuously expanding knowledge on the behaviour of nonhuman animals and their ecological connection to the environments in which they evolved provides new insight that demands a systematic and cohesive response in zoos around the world.

## The Unsuitability of Chimpanzees for Life in Captivity

Given their close relationship to humans, chimpanzees are always popular in zoo exhibits. Sadly, as with other nonhuman species, they tend to be housed in impoverished environments which fail to replicate the complexity of chimpanzees' natural habitat, which can lead to boredom, frustration and often the development abnormal behaviours stemming from their lack of opportunity to engage in species-specific behaviours.<sup>26</sup> Even when zookeepers and managers have good intentions, it can be a challenge to even partially recreate specific natural living conditions and habits, especially for long-lived species with complex lives, self-awareness and advanced

<sup>23</sup> Numerous zoos out there claim adherence to the Five Freedoms Model while still organising shows with trained nonhuman animals, such as Cetaceans. See i.e.: "The Five Principles of Loro Parque," Loro Parque, accessed 20 February 2024, <https://www.loroparque.com/en/five-principles-loro-parque/>.

<sup>24</sup> Pierce and Bekoff, "Postzoo Future."

<sup>25</sup> Andrea W. Clay et al., "Chimpanzees (*Pan troglodytes*) in U.S. Zoos, Sanctuaries, and Research Facilities: A Survey-Based Comparison of Species-Typical Behaviors," *Animals*, vol. 13, no. 2 (January 2023): 251, <https://doi.org/10.3390/ani13020251>.

<sup>26</sup> Sarah L. Jacobson, Stephen R. Ross, and Mollie A. Bloomsmith, "Characterizing Abnormal Behavior in a Large Population of Zoo-Housed Chimpanzees: Prevalence and Potential Influencing Factors," *PeerJ*, vol. 4 (13 July 2016): e2225, <https://doi.org/10.7717/peerj.2225>.

cognition, such as chimpanzees.<sup>27</sup> Multiple studies have shown that chimpanzees display empathetic behaviours, abstract thinking and have awareness of their own and others' mental states.<sup>28</sup> Such capacities likely lead to additional suffering, given their more conscious understanding of the hopelessness of their own situation, which may help explain why chimpanzees and other great apes often escape from their enclosures. Given the complexity of chimpanzee lives in the forests of Africa, captive conditions will inevitably fail to satisfy their rich social, dietary and psychological needs. Even when cared for by the most experienced and devoted caretakers, these are animals that can easily suffer from boredom and stress in captivity.

Chimpanzees, like humans, are 'experiencing beings'<sup>29</sup> and thus are unlikely to achieve a high Quality of Life<sup>30</sup> when their complex psychological needs are not fulfilled. The specific needs and behaviours of chimpanzees originated over millions of years in the forests of Africa; thus caregivers and managers must consider the lifestyles of free-living chimpanzees when considering their needs in captivity. Numerous aspects of the ecological and social context enjoyed by free-living chimpanzees, i.e. in terms of naturalistic enclosures<sup>31</sup> and/or providing enrichment relying on species-specific behaviours such as tool use and extractive foraging, can be at least partially reproduced in captivity (and indeed, are being creatively approximated by some zoos). Many other aspects of their lives in the wild are, however, much more challenging to recreate in captivity and some, such as voluntary female dispersal, consortships, warfare or hunting, are likely impossible. Given that the vast majority of captive chimpanzees engage in abnormal behaviours<sup>32</sup> and have limited activity budgets compared to their free-living counterparts,<sup>33</sup> it is clear that, even if we

<sup>27</sup> Pierce and Bekoff, "Postzoo Future"; Ros Clubb and Georgia Mason, "Captivity Effects on Wide-Ranging Carnivores," *Nature*, vol. 425, no. 6957 (October 2003): 473–74, <https://doi.org/10.1038/425473a>.

<sup>28</sup> Andrew Whiten, "Chimpanzee Cognition and the Question of Mental Re-Representation," in *Metarepresentations: A Multidisciplinary Perspective*, ed. Dan Sperber (Oxford University Press, 2000), 139–67.

<sup>29</sup> Andrzej Elżanowski, „Jak powstała moralność i co z tego wynika?,” w: *Problemy dydaktyki fizyki*, eds. Andrzej Krajna, Leszek Ryk, Krystyna Sujak-Lesz (Krośnice–Wrocław: Oficyna Wydawnicza Atut, 2011), 71–88; Michael Tomasello, "What Is It like to Be a Chimpanzee?," *Synthese*, vol. 200, no. 2 (6 April 2022): 102, <https://doi.org/10.1007/s11229-022-03574-5>.

<sup>30</sup> Mellor, "Updating Animal Welfare Thinking."

<sup>31</sup> Amanda Epping, "Captive Chimpanzee Group and Individual Space Use in a Naturalistic Enclosure," *Theses and Dissertations*, 1 May 2016, <https://dc.uwm.edu/etd/1139>.

<sup>32</sup> Lucy P. Birkett and Nicholas E. Newton-Fisher, "How Abnormal Is the Behaviour of Captive, Zoo-Living Chimpanzees?," *PLOS ONE*, vol. 6, no. 6 (2011): e20101, <https://doi.org/10.1371/journal.pone.0020101>.

<sup>33</sup> Stephen R. Ross and Marisa A. Shender, "Daily Travel Distances of Zoo-Housed Chimpanzees and Gorillas: Implications for Welfare Assessments and Space Requirements," *Primates*, vol. 57, no. 3 (1 July 2016): 395–401, <https://doi.org/10.1007/s10329-016-0530-6>; Yumi Yamanashi and Misato



agree that the species can ethically be kept in captivity, more needs to be done to enrich their lives. Zoos should therefore shift their focus as much as possible from serving as 'gene banks' for the species in general (which is pointless if their forests are destroyed, and they are preserved only in captivity to live in misery) and human entertainment to the well-being of individuals and investment in the protection of their natural habitats.

In the wild, chimpanzees display a great degree of behavioural diversity between different communities, but also between individuals.<sup>34</sup> Considering how difficult it is to address the strongly differentiated needs and abilities of individual chimpanzees and functioning chimpanzee societies, one cannot avoid posing the question as to whether or not this species belongs in captivity at all.<sup>35</sup> Perhaps chimpanzees (but this relates to other species as well) should not be displayed for human entertainment or education, and chimpanzee orphans who cannot return to the wild should be kept only in licensed sanctuaries.<sup>36</sup> Nevertheless, conceding the unlikelihood that all zoo and laboratory chimpanzees will be liberated any time soon, it remains crucial that for now we promote the welfarist approach, for the sake of the many nonhuman great apes destined to spend the rest of their lives in captivity.

## Zoological Gardens: Stated Goals vs Implementation

As shown in the review above, chimpanzees are unlikely to thrive in captivity (or it is maybe even impossible altogether). Nevertheless, the keeping of nonhumans in captivity is often justified as being part of a "greater good": in the case of zoos, the reasons given are education, conservation and research. In many if not all zoos, the

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Hayashi, "Assessing the Effects of Cognitive Experiments on the Welfare of Captive Chimpanzees (Pan Troglodytes) by Direct Comparison of Activity Budget between Wild and Captive Chimpanzees," *American Journal of Primatology*, vol. 73, no. 12 (2011): 1231–38, <https://doi.org/10.1002/ajp.20995>.

<sup>34</sup> see Toshisada Nishida et al., *Chimpanzee Behavior in the Wild: An Audio-Visual Encyclopedia* (Springer Science & Business Media, 2010).

<sup>35</sup> Pierce and Bekoff, "Postzoo Future"; Gary Lawrence Francione, *Animals as Persons: Essays on the Abolition of Animal Exploitation* (Columbia University Press, 2008).

<sup>36</sup> The second author spent time working at the Chimpanzee and Communication Institute, a sanctuary for sign language chimpanzees, which he considers a model for how chimpanzees can serve as ambassadors to human visitors while at the same time their social and psychological needs are prioritized, see Roger Fouts and Stephen Tukul Mills, "Next of Kin: What Chimpanzees Have Taught Me about Who We Are," *Eweb:172291*, 1997, <https://repository.library.georgetown.edu/handle/10822/899177>.



interest of attaining these goals clearly seem to outweigh the interests of the captive individuals. Thus, we need to develop a way to assess to what degree the institutions are actually implementing their stated goals.

Zoos frequently tout the educational role they provide to the public, and especially to children, as a worthy and irreplaceable one. Zoos do in fact provide people with the opportunity to directly experience the lives of non-domesticated nonhuman animals, and thus may help increase the interest of the public in wildlife and its conservation.<sup>37</sup> Nevertheless, how valuable is this experience if it is not accompanied by a deeper empathetic recognition for nonhumans than perhaps is allowed by observing them through a glass partition?<sup>38</sup> Viewing a frustrated and bored animal languishing in a cage may in fact be counterproductive, sending the message that nonhuman lives matter only so much as they offer humans entertainment and ‘education.’<sup>39</sup> Perhaps reading a book by Jane Goodall about free-living chimpanzees or watching a film about them would provide a better understanding of chimpanzee nature than visiting a zoo.

Numerous studies have provided evidence for the ineffectiveness of education in zoos, especially if not handled by professionals with a proper understanding of the species outside of captivity. In some cases, it has even had a negative influence on the visitors’ perception and knowledge of the animals and the threats they face in the wild.<sup>40</sup> In most of the cases where it proved to be effective, the visitors educated had already been invested in animal behaviour and conservation issues before.<sup>41</sup> In addition, even if visitors do learn something useful about wildlife, they generally nevertheless fail to change their habits, which may have negative impacts on non-human welfare, both those in the wild and in captivity.<sup>42</sup> Zoo visits mostly reinforce the visitors’ belief that conservation is executed by someone else, somewhere else, and their experiences in zoos only occasionally lead them to include some green practices (i.e. recycling) in their lives.<sup>43</sup>

<sup>37</sup> Isabel Escobar-Ibarra et al., “Conservation, Animal Behaviour, and Human-Animal Relationship in Zoos. Why Is Animal Welfare So Important?,” *Journal of Animal Behaviour and Biometeorology*, vol. 9 (6 January 2021), <https://doi.org/10.31893/jabb.21011>.

<sup>38</sup> Nygren and Ojalamm, “Conservation Education in Zoos.”

<sup>39</sup> Brian Miller et al., “Evaluating the Conservation Mission of Zoos, Aquariums, Botanical Gardens, and Natural History Museums,” *Conservation Biology*, vol. 18, no. 1 (2004): 86–93, <https://doi.org/10.1111/j.1523-1739.2004.00181.x>.

<sup>40</sup> Craig Redmond, “Zoos: Failing Animals, Conservation and Education,” *Critical Society*, vol. 4 (1 August 2010): 24–34.

<sup>41</sup> Matthias Winfried Kleespies et al., “Environmental Education in Zoos – Exploring the Impact of Guided Zoo Tours on Connection to Nature and Attitudes towards Species Conservation,” *Journal of Zoological and Botanical Gardens*, vol. 3, no. 1 (March 2022): 56–68, <https://doi.org/10.3390/jzbg3010005>.

<sup>42</sup> Nygren and Ojalamm, “Conservation Education in Zoos.”

<sup>43</sup> Nygren and Ojalamm, “Conservation Education in Zoos.”

The second fundamental claim that zoos make regarding their worth is their necessity for conservation, both in terms of saving the genes of endangered species and the funding and establishment of external programmes to protect natural habitats. Many modern zoos engage in *ex situ* conservation programmes aimed to preserve the natural environments of endangered species.<sup>44</sup> Effective efforts made by zoos to protect biodiversity are definitely appreciated and can be considered important contributions; some zoos have provided much help where it is sorely needed.<sup>45</sup> Nevertheless, the value of this function is sometimes oversold. An extensive study conducted by Tania Gilbert, Rachel S. Gardner, Alex R. Kraaijeveld and Philip Riodan<sup>46</sup> aimed to assess the contributions of EAZA-member institutions towards conservation. They found that these zoos: 1) mostly “supplied” (or rather, warehoused) nonhumans for future releases back into the wild (35%); 2) their conservation projects were exponentially biased towards charismatic vertebrates; 3) most (82%) of the species kept in these zoos are not threatened in the wild, and yet they are still being bred in captivity; 4) out of all of the species included in reintroduction programs, only about 35% showed a decline in wild populations; 5) only about 4% of threatened species in zoos have actually had members released to the wild, with reintroductions largely focused on charismatic taxa (“umbrella species”). This reductionist approach fails to view the targeted species as important components of their ecosystems, the survival of which are crucial for their own survival and welfare. The main focus of zoo-funded conservation projects should be protecting these wild habitats and their inhabitants, or, in the end, the world will be left with nothing but nonhuman animals languishing in cages (one cannot avoid thinking of the *Far Side* cartoon by Gary Larson called “Wildlife Reserves,” portraying rhinos and other megafauna packed into giant formaldehyde bottles across the savanna). As Nygren and Ojalammii wrote, “If there is no wilderness and pristine (sic!) nature ‘out there,’ what is nature conservation all about?”<sup>47</sup> Even given the limited effectiveness that these programmes have, they remain excruciatingly underfunded: only a handful of zoos spend more than 5% of their budget on such projects.<sup>48</sup> That handful is, of course, to be commended, but should not zoos as a whole spend more to protect the very wildlife around which their institutions are centred?

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<sup>44</sup> Rietkerk and Pereboom, “Conservation of Great Apes.”

<sup>45</sup> Alexandra Zimmermann, “The Role of Zoos in Contributing to In Situ Conservation,” in *Wild Mammals in Captivity: Principles and Techniques for Zoo Management, Second Edition* (University of Chicago Press, 2010), 281–87.

<sup>46</sup> Gilbert et al., “Contributions of Zoos and Aquariums to Reintroductions.”

<sup>47</sup> Nygren and Ojalammii, “Conservation Education in Zoos,” 67.

<sup>48</sup> Miller et al., “Evaluating the Conservation Mission.”

As for research opportunities, zoos undoubtedly grant access to species that researchers would otherwise have to travel far to find and allow them to be studied under significantly less challenging conditions than in the wild. Nevertheless, it is crucial to understand some of the limitations of research conducted in zoos. Scientific team of Tse-Lynn Loh (2018) conducted a wide analysis of the contributions of AZA member institutions to peer-reviewed research over a 20-year period<sup>49</sup> and found that more than 63% of the published articles fell under the category of zoology and veterinary science, while biodiversity conservation was the main focus of only 7.3% of the total. Thus, most of this research was aimed at caring for captive animals (even if some of it may be used *in situ* as well) rather than conserving or understanding the species in the wild. A similar study reviewing the research contribution of EAZA-accredited zoos produced generally similar findings (zoology and veterinary science 74.2%, biodiversity conservation 10.5%).<sup>50</sup> Conducting research on the needs of nonhuman residents of zoos is undoubtedly important, as it helps us better understand and address the needs of the nonhuman residents. Nevertheless, much more attention should be paid to projects that aid in conservation in the wild, given that this is often used as a legitimising factor or even an excuse to keep nonhuman animals in zoological gardens.

## Discussion

In this essay we do not seek to impugn the motives or professionalism of zoo managers and caregivers, many of whom devote their lives to improving the conditions of the nonhumans under their care. Nevertheless, we owe it to all of the sentient beings whom we have imprisoned through no fault of their own to discuss these issues honestly and critically. Given that abolition is not likely any time soon, the wellbeing of captive nonhumans needs to be the top priority, not abstract concerns about gene banks or visitor numbers.

Even if our global society were to decide that some profound concerns do indeed outweigh the quality of life of individual nonhumans, we have shown in this review that the implementation of the institution's goals may often be ineffective or even

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<sup>49</sup> Tse-Lynn Loh et al., "Quantifying the Contribution of Zoos and Aquariums to Peer-Reviewed Scientific Research," *FACETS*, vol. 3, no. 1 (October 2018): 287–99, <https://doi.org/10.1139/facets-2017-0083>.

<sup>50</sup> Christina Hvilsom et al., "The Contributions of EAZA Zoos and Aquariums to Peer-Reviewed Scientific Research," *Journal of Zoo and Aquarium Research*, vol. 8, no. 2 (30 April 2020): 133–38, <https://doi.org/10.19227/jzar.v8i2.486>.

counterproductive. Our better understanding of natural behaviour may inevitably reveal that some species, such as elephants or chimpanzees, simply do not belong in captivity (as we accept is the case with our own species). We must look for alternative paths to reaching our important conservation and education goals which do not condemn nonhumans to suffer needlessly. For example, the use of modern technology, such as 3D videos to replace live animals, was shown to appeal to zoo visitors.<sup>51</sup> Much more efforts should also be made in schooling systems to educate children about nonhuman animals' lives and welfare, as well as conservation issues, as these children will otherwise grow to be indifferent adults.

The main priority of a zoo should be, in our view, not to conserve nonhuman genes or to allow children to see wildlife up close, but instead to spread awareness and empathy towards nonhuman animals and their habitats, and, ideally, to serve as sanctuaries for nonhumans who cannot return to the wild. Imprisoning frustrated and miserable nonhumans, be they chimpanzees, parrots or dolphins, is not the way to go about this. Modern zoos have definitely taken some steps in the right direction, and the recent advancements in policies and care guidelines deserve recognition. Nevertheless, there remains much to be done in fulfilling human obligations towards the nonhumans in our care and protecting the ecosystems in which they evolved.

The efforts of zoos to fund conservation activities to protect wildlife and to educate the public about the conservation crisis are to be commended. These cannot take place, however, at the expense of the sentient beings which are supposedly the zoos' *raison d'être*. As long as zoos exist, they must first and foremost take responsibility for the quality of life of the nonhumans in their care. There are species that simply should not be housed in captivity at all, as we are unlikely or unable to provide for their complex needs. Chimpanzees are undoubtedly one of those species. Zoos house hundreds or even thousands of species in each facility, and we believe they could easily work on achieving their goals without the need to house the ones whose positive welfare they cannot guarantee. Their biopolitical strategies at work make it inevitable for numerous individuals to simply suffer and this is something we fundamentally should not agree to.

## Note

This article makes use of elements that first appeared in one of the authors' unpublished bachelor thesis.

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<sup>51</sup> Pierce and Bekoff, "Postzoo Future."

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