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A Discussion on Ethical Status of Zoos: Do We Really Need Them?

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Abstract

This study aims to develop a comprehensive ethical framework for evaluating the role of zoos, critically examining both supporting and opposing viewpoints. Proponents argue that zoos play a crucial role in species conservation through managed breeding programs, while also providing valuable educational and scientific opportunities that enhance public awareness of wildlife conservation. Conversely, critics raise ethical concerns regarding animal welfare, captivity, and the psychological effects of confinement. Recognizing the significance of these arguments, this study explores alternative models to traditional zoos, advocating for innovative approaches that prioritize animal well-being while fulfilling conservation goals. Additionally, the research underscores the importance of governmental intervention in shaping ethical zoological practices through robust legal frameworks. As perspectives on animal rights continue to evolve, recent legal developments increasingly recognize animals as sentient beings rather than mere property, aligning with contemporary ethical and legal standards.

Keywords: Zoo, Ethics, Animal Welfare, Animal Rights, Conservation Policy.

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Hayvanat Bahçelerinin Etik Durumu Üzerine Bir Tartışma: Onlara Gerçekten İhtiyacımız Var Mı?

Öz

Bu çalışma, hayvanat bahçelerinin rolünü değerlendirmek için kapsamlı bir etik çerçeve geliştirmeyi amaçlamakta ve hem destekleyici hem de karşıt görüşleri eleştirel bir şekilde incelemektedir. Savunucular, hayvanat bahçelerinin kontrollü üreme programları aracılığıyla türlerin korunmasında kritik bir rol oynadığını ve aynı zamanda vahşi yaşamın korunmasına dair kamu farkındalığını artıran değerli eğitimsel ve bilimsel fırsatlar sunduğunu savunmaktadır. Öte yandan eleştirmenler, hayvan refahı, esaret altında tutma ve kapatılmanın psikolojik etkileri gibi etik endişeleri gündeme getirmektedir. Bu argümanların önemini kabul eden çalışma, geleneksel hayvanat bahçelerine alternatif modelleri inceleyerek, hayvan refahını ön planda tutarken aynı zamanda koruma hedeflerini yerine getiren yenilikçi yaklaşımları savunmaktadır. Ayrıca, etik hayvanat bahçesi uygulamalarını şekillendirmek için hükümet müdahalesinin önemini vurgulamakta ve güçlü yasal çerçevelerin geliştirilmesi gerektiğini ortaya koymaktadır. Hayvan haklarına ilişkin bakış açıları gelişmeye devam ettikçe, son yasal düzenlemeler hayvanları yalnızca bir mülk olarak değil, duyarlı varlıklar olarak giderek daha fazla tanımakta ve bu durum çağdaş etik ve hukuki standartlarla uyum sağlamaktadır.

Anahtar Kelimeler: Hayvanat Bahçesi, Etik, Hayvan Refahı, Hayvan Hakları, Koruma Politikası.

1. Introduction

Zoos are establishments where wild animals are kept in environments that are often poorly designed with the primary purpose of displaying them to the public. Historically, animals were kept in zoos for entertainment and to facilitate the study of biology and animal behavior. However, contemporary discourse has shifted towards conservation, and zoos are increasingly being marketed as places where endangered species are protected and bred (Fraser & Switzer, 2021). Despite these evolving roles, the ethical justification of zoos remains a contentious issue. Some commentators argue that zoos primarily exist for human amusement rather than genuine conservation efforts, likening the industry to a parasitic enterprise that exploits captive animals for financial gain. Critics further contend that keeping animals in captivity is inherently cruel, as it deprives them of their natural behaviors and social structures. Additionally, they question the educational value of zoos, arguing that rather than fostering a genuine understanding of wildlife, they reinforce the idea that animals exist for human entertainment (Hosey et al., 2020; Fukano et al., 2020; Clifford-Clarke et al., 2021).

Zoo design has evolved significantly over time, moving from purely entertainment-driven structures to enclosures that prioritize animal welfare. Some historians trace the concept of the zoo back to Ancient Egypt, where exotic animals were kept by Pharaohs as status symbols. Throughout the 18th and 19th centuries, the rise of exploration led to a surge in the popularity of zoos, though conditions for animals often deteriorated as visitor numbers increased. The late 19th century saw a major shift with the establishment of the Hagenbeck Zoo in Hamburg, which introduced moated enclosures that closely resembled animals' natural habitats (Browning, 2019; Jodidio, 2020). Modern zoos, such as the London and Chester Zoos, continue to emphasize conservation, research, and animal welfare in their designs (Fraser & Switzer, 2021; Macdonald, 2023).

Despite these advancements, the fundamental ethical debate surrounding zoos remains unresolved. Peter Singer's utilitarian approach assesses whether zoos minimize suffering and maximize overall welfare, while Tom Regan's rights-based theory argues that animals should not be treated as means to an end (Singer, 1975; Regan, 1983). Gary L. Francione takes an abolitionist stance, asserting that zoos inherently violate animals' rights by commodifying them (Francione, 1996). These perspectives challenge the moral legitimacy of zoos and highlight the necessity of exploring alternative conservation models.

Zoos are often defined as public institutions dedicated to species protection, breeding, and education. However, their role has expanded to include interactive experiences such as animal feeding and live shows. Modern zoos incorporate scientific research and technological advancements to create environments that more closely resemble natural habitats. These innovations support conservation efforts and enhance community education, yet critics argue that even these improvements do not justify the ethical implications of captivity (Fukano et al., 2020; Robovský et al., 2020; Lueders & Allen, 2020).

This paper critically examines the ethical dimensions of zoos by integrating philosophical arguments with empirical evidence. Additionally, it explores alternative models—including wildlife sanctuaries, digital zoos, and rehabilitation programs—that may better align with contemporary ethical standards. By analyzing both ethical considerations and practical implementations, this study contributes to the ongoing discourse on the future of zoos in modern society.

2. Arguments in Favor of Zoos

One of the primary arguments in favor of zoos is their role in species conservation and the prevention of extinction. However, financial sustainability remains a significant challenge, as the high costs of feeding, housing, and caring for animals necessitate a steady income. While visitor fees, donations, and government funding contribute to operational costs, funding is often limited, particularly for species that are not considered popular or charismatic (Parker & Luz, 2019; Robovský et al., 2020). This financial pressure sometimes leads zoos to prioritize species that attract more public interest, potentially diverting resources away from lesserknown species (Brereton & Brereton, 2020). A controversial example is Loro Parque in Tenerife, which has long been involved in an orca breeding program. Although this initiative has generated significant revenue through visitor fees and global recognition, it has also faced heavy criticism from animal rights groups, particularly following the release of the documentary Blackfish in 2013. Critics argue that such breeding programs prioritize financial gains over animal welfare, a concern that has led to widespread protests and declining public support, ultimately prompting discussions about discontinuing the program (Swanson, 2023; Greenwell et al., 2023). Ultimately, despite their conservation efforts, zoos operate as businesses, often balancing ethical concerns with financial necessities.

2.1 Conservation Efforts

Many UK zoos are increasingly collaborating on conservation initiatives, such as the Kafue Lion Project, managed by the British and Irish Association of Zoos and Aquariums (BIAZA). This

program, which involves cooperation between UK environmentalists, the Zambian government, and local wildlife rescue groups, aims to support lion conservation through research and educational strategies. Fundraising efforts from institutions like Paignton Zoo, Chester Zoo, and the Wildlife Heritage Foundation, along with academic expertise from Project African Lion, have contributed significantly to these efforts (Bertola et al., 2022; Cruise, 2020; Mandy, 2021; Turner et al., 2022).

Additionally, zoos generate substantial funds for conservation through educational programs. For example, Colchester Zoo's African Lion Fast Facts display attracts over 20,000 visitors annually, raising approximately £104,000 through its Action for the Wild program, which supports conservation projects worldwide (Fukano et al., 2020; Collins et al., 2020; Spooner et al., 2021; Clifford-Clarke et al., 2021; Mellish et al., 2021).

Beyond funding, zoo-based research has played a crucial role in understanding and protecting endangered species. The Durrell Wildlife Conservation Trust, led by Professor Carl Jones, successfully developed a breeding program for the Mauritius kestrel, once the world's rarest bird of prey. In the 1970s, only 12 individuals remained in the wild, but through captive breeding and reintroduction efforts, the population has now exceeded 300, demonstrating the impact of well-managed conservation programs (Lueders & Allen, 2020; Robovský et al., 2020; Fukano et al., 2021; Tripovich et al., 2021; Putnam et al., 2022).

2.2 Education and Research Opportunities

Zoos serve as valuable centers for education and research in fields such as psychology, biology, veterinary medicine, and zoology, providing researchers with opportunities to study animals in controlled environments. Additionally, they play an essential role in public education, particularly for schoolchildren who may not have the means to observe wildlife in their natural habitats. Regular school trips and educational programs allow visitors to learn about biodiversity and conservation efforts firsthand (Kappelhof & Weerman, 2020; Lees et al., 2021).

One notable initiative is the European Endangered Species Program, managed by the European Association of Zoos and Aquaria. Initially focused on breeding birds, this cooperative program has expanded to include a wide range of species, ensuring the maintenance of genetically healthy populations in European zoos. By overseeing the breeding and management of endangered animals, the program aims to secure viable populations for the future, addressing conservation challenges faced by both captive and wild animals (Byers et al., 2022; Lovrenčić et al., 2022; Williams et al., 2022; Williams et al., 2022).

2.3 Protection from Extinction

Zoos play a crucial role in protecting endangered species, helping to extend their survival when their natural habitats are threatened by deforestation, urbanization, and climate change. Many species, particularly those in fragmented environments, face risks of inbreeding and genetic decline, making zoo-based conservation programs vital for their survival. However, critics argue that zoos provide only a limited solution due to inadequate habitats and breeding programs (Bi, 2020; Cao et al., 2020).

Despite these concerns, successful breeding initiatives have significantly contributed to species conservation. For instance, the population of the giant panda increased from 248 individuals in 1981 to 1,864 in 2015, largely due to captive breeding programs. The conservation efforts for giant pandas have also influenced broader wildlife protection strategies, such as transferring conservation knowledge to support African elephant preservation. Additionally, zoos provide safe refuges for various species, including endangered rhinoceroses, Andean condors, and Luzon tarictic hornbills—species that have suffered drastic population declines in South America and Southeast Asia. Over the past 50 years, more than 40 species have gone extinct due to conservation challenges, highlighting the necessity of zoos in sustaining biodiversity (Williams et al., 2020; Lees et al., 2021; Li, 2021).

Zoos also facilitate scientific research on genetic diversity, life expectancy, and reproductive biology, contributing to species recovery strategies. Some species, such as golden lion tamarins and Guam rails, have thrived in captivity, offering hope for their eventual reintroduction into the wild once their natural habitats are restored. Furthermore, conservation studies conducted in zoos help identify the negative impacts of human activities on wildlife, providing essential insights into habitat preservation and long-term sustainability efforts (Bi, 2020; Cao et al., 2020; Williams et al., 2020).

3. Arguments Against Zoos

Critics argue that zoos compromise animal welfare by confining animals to small enclosures, preventing them from engaging in natural behaviors. In the wild, many species establish territories, form social bonds, and live within structured family groups, which captivity inherently disrupts. Despite efforts to replicate natural habitats, zoo environments can never fully match the complexity and space of the wild (Browning, 2019; Melfi & Ward, 2019).

A key concern is the development of stereotypic behaviors—repetitive, purposeless actions often linked to stress, boredom, and frustration in confined spaces. These behaviors suggest that captivity negatively impacts animal well-being. While zoos provide educational opportunities and contribute to conservation efforts, opponents argue that keeping animals for public entertainment and financial gain is ethically unjustifiable (Dawkins, 2021; Warwick & Steedman, 2023).

Supporters counter that zoos foster community engagement, much like parks and concerts. However, alternatives such as wildlife documentaries and safaris provide similar educational experiences without requiring animals to be held in captivity (Warwick, 2023).

3.1 Animal Welfare Concerns

In the wild, animals develop behaviors suited to their environments, enabling them to meet their daily needs. However, in captivity, their natural behaviors are significantly restricted. Zoos often fail to provide adequate space for wide-ranging species such as elephants, big cats, and primates, leading to frustration and stress. Many animals in confinement exhibit stereotypic behaviors, known as "zoochosis," which include repetitive movements or self-harm caused by

their inability to engage in instinctive activities (Browning, 2019; Binding et al., 2020; Beausoleil, 2020).

Captive breeding programs can also lead to social hierarchy issues within zoo populations. Some animals breed rapidly, creating dominance struggles between original and newly born individuals, further exacerbating stress levels. To manage population growth, many zoos use contraceptive implants, a long-term solution that reduces the stress of frequent medical interventions. While this method improves welfare by preventing excessive breeding and overcrowding, it also poses risks, including surgical complications and stress from handling and confinement (Browning & Veit, 2021; Veasey, 2022). Additionally, training and behavioral conditioning in zoos can be physically and emotionally taxing, raising further ethical concerns about the welfare of captive animals.

3.2 Captivity and Confinement

Opponents argue that despite advancements in enclosure design, zoos still fail to provide adequate space for large, wide-ranging species such as elephants, big cats, and bears. Enclosures often remain significantly smaller than the animals' natural habitats, limiting their ability to roam freely. For instance, a 2011 study found that nearly 50% of elephants in European zoos were overweight due to restricted movement, potentially increasing their risk of cardiac issues later in life (Melfi & Ward, 2019; De Paula Vieira & Anthony, 2020).

However, some researchers counter that stress levels observed in these animals often fall within the "normal" range, suggesting that confinement may not necessarily lead to severe psychological distress. This raises a broader debate about whether the quality of space in zoos is more critical than its quantity. Some also argue that captive animals may gradually adapt to smaller enclosures over generations. A commonly cited example is "orbiting" behavior, where animals pace repetitively along the edges of their enclosures. While initially seen as a sign of distress, studies suggest that such behaviors tend to diminish over generations, indicating a possible adjustment to captivity (Warwick, 2023; Warwick & Steedman, 2023).

3.3 Psychological Impact on Animals

One of the primary concerns regarding zoos is their potential psychological impact on captive animals. Research on humans has shown that restricted environments can lead to mental health issues, and similar findings have been observed in animals. Biologist Ros Clubb has stated that animals kept in enclosures too small for their natural behaviors often exhibit abnormal stress-related behaviors (Beausoleil, 2020; Browning, 2019).

Supporting this claim, a 2010 study by the University of Edinburgh and the University of Oxford found that zoo-kept elephants displayed signs of stress due to spatial restrictions. Blood samples from the elephants revealed significant fluctuations in stress hormone levels, indicating psychological distress linked to confinement. These findings align with broader research on the effects of restricted space on livestock, reinforcing the argument that captivity may lead to suffering in zoo animals (Browning & Veit, 2021; Holtze et al., 2021).

However, zoo conservationists counter that animal welfare can be safeguarded through proper shelter, nutrition, and veterinary care. The World Association of Zoos and Aquariums acknowledges that captivity can induce abnormal behaviors but argues that well-managed enclosures and enrichment programs can mitigate suffering. This ongoing debate raises a fundamental ethical question: do improvements in zoo conditions sufficiently outweigh the psychological risks associated with confinement?

4. Alternatives to Traditional Zoos

Many ethical arguments challenge the justification for animal captivity, advocating for alternatives such as wildlife sanctuaries, digital experiences, and rehabilitation programs. These alternatives aim to balance scientific research and education while prioritizing animal welfare. Wildlife sanctuaries, for instance, provide expansive, natural environments where animals can roam freely. A successful example is the Elephant Sanctuary in Tennessee, which spans thousands of acres. Advocates propose that similar projects, such as a European safari park for elephants, could serve as models for ending elephant captivity in zoos (Browning, 2019; Binding et al., 2020).

Another alternative is the use of digital educational tools to replace the need for live animal exhibits. The Discovery Crittercam, a video camera attached to animals, has provided valuable insights into whale and big cat behaviors. By capturing footage of animals in their natural habitats and presenting it through virtual experiences, digital education can offer engaging learning opportunities without requiring animal confinement. However, the persistence of stereotypic behaviors, such as repetitive pacing and self-mutilation, in many captive animals underscores the urgency of ethical considerations in zoo management (Dawkins, 2021; Krause & Robinson, 2022).

Rehabilitation and release programs offer a third alternative by focusing on the recovery and reintegration of injured or displaced wildlife. Organizations like the North London Bat Rescue and Rehabilitation provide care for bats before reintroducing them into the wild. While some conservation groups, including the British and Irish Association of Zoos and Aquariums, argue that such initiatives may not be a viable large-scale replacement for zoos, they represent a step toward more ethical conservation practices (Clay & Visseren-Hamakers, 2022). The key challenge in implementing these alternatives lies in their long-term feasibility and funding, yet they continue to gain traction as ethical substitutes for traditional zoos.

4.1 Wildlife Sanctuaries and Reserves

Nature reserves serve as an alternative to traditional zoos by preserving entire ecosystems and supporting the natural processes necessary for biodiversity. Unlike zoos, which primarily focus on exhibiting animals, reserves protect both wildlife and their habitats. Additionally, they provide educational opportunities by allowing public visits, raising awareness about conservation while ensuring minimal disruption to the animals' natural behaviors. This approach is often viewed as a more ethical solution, as it prioritizes ecosystem sustainability over animal confinement (Hosey et al., 2020; Fraser & Switzer, 2021; Krause & Robinson, 2022).

Wildlife sanctuaries, which are generally larger than zoos, offer a more natural living environment for animals. Their primary goal is not to provide human entertainment but to ensure the well-being of animals—particularly those rescued from abusive situations or illegal wildlife trade. Many animals born in captivity struggle to adapt to the wild, making sanctuaries a crucial alternative where they can live safely for the rest of their lives. Converting existing zoos into sanctuaries or establishing new nature reserves represents a more ethical conservation model. While these facilities maintain structural similarities to zoos, such as barriers and professional management, they significantly reduce the exploitative aspects that have long been criticized by animal rights advocates (Browning, 2019; Lees et al., 2021; Mandy, 2021; Krause & Robinson, 2022).

4.2 Virtual Zoos and Digital Experiences

A growing number of virtual zoos and digital experiences are emerging as alternatives to traditional zoos, offering immersive and interactive ways to engage audiences. Technologies such as virtual reality (VR) and augmented reality (AR) allow visitors to explore wildlife in realistic digital environments without the need for live animal exhibits. These digital platforms are particularly beneficial for schools and young learners, providing accessible educational experiences while eliminating ethical concerns associated with animal captivity (Binding et al., 2020; Collins et al., 2020; Robovsky et al., 2020).

Virtual zoos also help overcome logistical and financial barriers, making conservation education available to a broader audience. Behavioral psychology principles, such as variable rate reinforcement, are often employed in digital experiences to maintain user engagement. This method, commonly used in game design, enhances interaction by delivering unpredictable rewards, keeping audiences immersed for longer periods (Browning & Veit, 2021; Dawkins, 2021).

Additionally, digital platforms can be tailored for inclusivity, offering features such as virtual maps and detailed informational points to assist individuals with mobility challenges. By incorporating accessibility features, virtual zoo experiences ensure that conservation education is available to diverse audiences, making them a promising alternative to traditional animal exhibits (Escribano et al., 2021; Fraser & Switzer, 2021; Holtze et al., 2021).

4.3 Rehabilitation and Release Programs

Rehabilitation and release programs aim to prepare captive or injured animals for reintegration into the wild. Many modern zoos participate in these initiatives as part of their conservation efforts, working alongside wildlife-focused research programs. Typically, animals in these programs have been injured in the wild or have spent time in captivity, requiring extended rehabilitation periods—ranging from weeks to years—to regain natural behaviors before they can be released (Cruise, 2020; Bertola et al., 2021; Mandy, 2021).

These programs focus on mental stimulation and behavioral conditioning to ensure animals can survive independently in their native environments. However, critics argue that some zoos use release programs as a means to justify traditional captivity, emphasizing "ambassador

animals" in public-facing displays. These individuals—often selected for their charismatic or photogenic appeal—play a central role in marketing and fundraising efforts, raising concerns that conservation goals may be secondary to public engagement and financial interests (Tripovich et al., 2021; Byers et al., 2022; Putnam et al., 2022).

While well-managed rehabilitation programs contribute to species conservation, their success depends on prioritizing genuine reintegration efforts over promotional strategies. Natural-focused zoo systems may offer more effective long-term solutions for conservation and species survival (Turner et al., 2022).

5. The Role of Government and Regulations

Zoo operations, as well as the treatment and accommodation of animals, are strictly regulated at both national and international levels. In the UK, the Zoo Licensing Act and the European Union Zoos Directive ensure that zoos meet rigorous welfare, conservation, and educational standards. Before opening to the public, zoos must obtain a license from the local authority, which involves a detailed assessment of their facilities, financial stability, and long-term commitment to animal welfare. Once granted, licenses are valid for four years and subject to regular inspections to ensure ongoing compliance (Jodidio, 2020; Veasey, 2022).

In addition to annual inspections, authorities maintain a registry containing licensing details, inspection reports, and records of any corrective actions taken. These measures are designed to uphold high welfare standards and promote conservation, ensuring that zoos contribute positively to biodiversity protection rather than merely serving as commercial attractions. Moreover, regulators must align with international obligations regarding species conservation and ethical wildlife management. Ultimately, these policies aim to balance public education, conservation efforts, and the ethical treatment of captive animals (Warwick & Steedman, 2023).

5.1 Legal Framework for Zoo Operations

The legal framework governing zoo operations in the United Kingdom consists of both national and local regulations. The primary legislation, the Zoo Licensing Act 1981, is administered by the Department for Environment, Food and Rural Affairs (DEFRA) and regulates the establishment and management of zoos. Under this act, zoos must obtain a license from their local authority, which is responsible for overseeing compliance and enforcing additional conditions beyond the Secretary of State's model standards. Local authorities have significant regulatory power, including the ability to modify or revoke licenses, though such decisions are subject to appeal to the Secretary of State (Jodidio, 2020; Lueders & Allen, 2020).

Unlike some other regulatory systems, the act does not grant members of the public direct statutory authority over zoo operations, except during initial consultations or appeals. This structure ensures regulatory consistency, preventing disruptions from external political influences. However, failure to comply with licensing conditions constitutes a legal offense under Section 14(1)(b) of the Zoo Licensing Act 1981, which can result in fines, imprisonment for up to six months, or license revocation. This strict enforcement mechanism not only

safeguards animal welfare but also prevents misleading public representations and strengthens conservation efforts within zoos (Robovsky et al., 2020; Li, 2021).

5.2 Oversight and Inspection Processes

Zoos in the UK are subject to regular inspections by the Secretary of State or the relevant licensing authority, with at least one mandatory inspection per year. Additionally, authorities can conduct unannounced inspections if concerns arise. Following each inspection, a report is generated, and a copy must be displayed at the zoo's main entrance, ensuring transparency. Zoo operators are also required to provide public access to these reports upon request, making them valuable tools for animal welfare advocates seeking to identify areas for improvement (Jodidio, 2020; Lueders & Allen, 2020).

The quality and depth of inspection reports can vary, leaving it up to the regulatory authority to determine necessary actions. These may include providing recommendations, setting deadlines for compliance, or, in severe cases, revoking the zoo's license. Beyond scheduled inspections, authorities have the power to conduct additional evaluations in response to complaints or emerging welfare concerns. This oversight mechanism plays a crucial role in ensuring that zoos maintain proper standards of care and operational integrity, reinforcing their responsibility toward animal welfare and ethical management (Mellish et al., 2021; Greenwell et al., 2023).

5.3 Enforcement of Animal Welfare Standards

The government plays a central role in enforcing the Animal Welfare Acts (AWAs) and their associated regulations, ensuring accountability for violations. Enforcement measures include civil fines, license suspensions or revocations, and criminal penalties. However, action against non-compliance typically depends on evidence gathered through inspections conducted by The Animal and Plant Health Inspection Service (APHIS) or investigations by federal, state, or local law enforcement agencies (Browning, 2019; Binding et al., 2020).

Although inspection reports must be made publicly available, legal restrictions under the AWAs limit public oversight of animal welfare enforcement. For instance, documents considered as investigative material related to ongoing enforcement proceedings are exempt from disclosure under the Freedom of Information Act (FOIA). Such legal barriers restrict the extent to which advocacy groups and the public can scrutinize enforcement actions, reducing transparency in regulatory oversight (Jodidio, 2020; Browning & Veit, 2021).

Additionally, the regulation of zoos and animal welfare remains a politically sensitive issue. Opponents of stronger enforcement mechanisms may exploit these legal restrictions to challenge the credibility of inspection reports and advocacy efforts. The limited accessibility of enforcement data makes it difficult for the public to verify concerns regarding animal welfare violations, further complicating the debate over ethical and legal zoo management (Dawkins, 2021).

6. The Ethical Framework: Philosophical Perspectives on Zoos

The ethical status of zoos is widely debated in both academic and public discourse. Ethical perspectives on zoos generally fall into three main categories: utilitarian ethics, rights-based ethics, and abolitionist ethics. These approaches offer different ways of evaluating whether zoos serve a morally justified purpose or whether they fundamentally violate ethical principles regarding animal welfare.

6.1 Utilitarian Perspective: Weighing Benefits and Harms

Peter Singer's utilitarianism evaluates zoos based on whether they maximize overall happiness and minimize suffering. Singer argues that zoos may be justified if they contribute to conservation, education, and scientific research while minimizing harm to captive animals (Singer, 1975). However, critics within the utilitarian tradition argue that many zoos fail to provide adequate living conditions, leading to significant psychological distress and physical suffering for animals (Browning & Veit, 2021). The practice of keeping large, highly intelligent animals such as elephants and primates in confined spaces is particularly problematic from a utilitarian perspective, as these species exhibit signs of severe stress and depression in captivity (Warwick & Steedman, 2023).

6.2 Rights-Based Ethics: Animals as Subjects of a Life

Tom Regan's rights-based approach rejects the instrumental use of animals in zoos. Regan argues that animals, as "subjects-of-a-life," have intrinsic value and should not be treated as mere objects for human purposes (Regan, 1983). This framework suggests that no amount of conservation, education, or research can justify depriving animals of their autonomy. From this standpoint, even well-managed zoos with high welfare standards are ethically indefensible, as they inherently compromise the fundamental rights of animals to live freely in their natural environments (Krause & Robinson, 2022).

6.3 Abolitionist Perspective: The Case Against Zoos

Gary L. Francione takes a more radical approach, arguing that zoos should be entirely abolished because they are based on the exploitation of animals for human interests. He critiques welfarist arguments that suggest improving zoo conditions is an adequate ethical solution, asserting that as long as animals are considered property, their interests will always be secondary to human desires (Francione, 1996). The abolitionist stance calls for a complete shift toward non-exploitative models of wildlife conservation, such as sanctuaries that prioritize animal autonomy over human entertainment.

6.4 Reevaluating the Ethical Role of Zoos

While zoos have evolved significantly from their historical role as mere entertainment venues, they continue to raise profound ethical questions. The growing body of research on animal cognition and welfare supports the notion that captivity imposes significant psychological and physiological burdens on many species (Dawkins, 2021). Even when zoos claim to prioritize

conservation, the effectiveness of captive breeding programs remains debatable, as reintroducing animals into the wild is often unsuccessful due to habitat destruction and behavioral maladaptation (Lees et al., 2021).

Given these ethical concerns, many scholars advocate for alternative models that can achieve conservation and education goals without compromising animal rights. Wildlife sanctuaries, virtual zoos, and rehabilitation programs offer promising avenues that align better with contemporary ethical standards. The following section explores these alternatives in greater detail.

7. Conclusion

The ethical debate surrounding zoos remains complex, shaped by conflicting perspectives on conservation, animal welfare, and captivity. Historically, zoos have evolved from mere entertainment facilities to institutions that emphasize education, species preservation, and scientific research. However, as public awareness and legal frameworks continue to develop, the ethical justification of confining animals for human benefit is increasingly questioned.

While zoos contribute to conservation through breeding programs and public education, concerns persist regarding their effectiveness in genuinely protecting species and ensuring the well-being of captive animals. The rise of alternative models—such as wildlife sanctuaries, virtual zoos, and rehabilitation programs—suggests that ethical and sustainable approaches to wildlife conservation are both necessary and feasible. As the discourse on animal rights progresses, governments must take proactive steps to establish and enforce robust legal frameworks that prioritize the well-being of animals rather than their utility to human institutions.

Future policies should consider a transition from traditional zoo models toward more humane conservation strategies. Recognizing animals as sentient beings with intrinsic value is a crucial step in this process. A shift in focus from captivity-based models to habitat preservation and ethical conservation practices could redefine humanity's relationship with wildlife. Ultimately, the ethical status of zoos must be continually reassessed in light of evolving scientific knowledge, legal developments, and shifting societal values.

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ETHICS

The author declares that this article complies with ethical standards and rules.

AUTHOR CONTRIBUTION

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CONFLICT OF INTEREST

The author declares no conflict of interest.

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