



**CLAWING  
AT THE CAGES:  
BIG CATS IN ZOOS**



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# CLAWING AT THE CAGES: BIG CATS IN ZOOS

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# FOREWORD

Big cats are some of the most recognized and beloved animals in the world. In addition to their vital ecological function as apex predators and their inherent value as individuals with rich lives, they also occupy an important symbolic place in many cultures and religions. It is perhaps because of our fascination with these animals – who are the epitome of what it means to be “wild” – that they are some of the most commonly kept animals in zoos. These complex, intelligent, strong, wide-ranging, and long-lived animals experience lives in captivity in which their most fundamental needs are denied to fulfil our frivolous desire to see them for a fleeting moment, before going about our days.

*Clawing at the Cages* takes an in-depth look at the ways in which big cats suffer in captivity. Exploring the health and welfare compromises cheetahs, lions, tigers, jaguars, and leopards experience when held captive for entertainment, this report makes a compelling argument against their ongoing imprisonment.

Unable to escape the crowds of humans, unable to follow some of their fundamental urges such as hunting and roaming over large distances, unable to fulfil their social needs – whether that be living solitarily or forming a pride with others – big cats show us their mental anguish by adopting abnormal behaviors. These behaviors, known as stereotypies, manifest in obsessive pacing. Some big cats spend most of their days tracing the same, short, tedious route around their enclosures. This behavior is a recognized sign of stress, and only documented in captive animals.

Other big cats have been injured and killed by enclosure companions when they are unable to escape attacks. It is hardly surprising that big cat species who naturally live alone experience conflict when forced to live in close proximity to others. By its very nature, zoos give vulnerable animals no safe place to avoid conflict or the event of an attack. A tragic example of this is a lion named Jamila, who was killed by another lion at Cheyenne Mountain Zoo in 2013. Lions are the only big cat who are not naturally solitary, and even for these cats who would live in groups in the wild, captivity can be fatal.

White lions and tigers are undeniably beautiful and are a huge draw for zoo visitors. In this report, we expose the truth that these animals are deliberately inbred with close family members to produce their white coats. Their coloring is not, as some zoos suggest, a mark of a distinct species, but is the result of a genetic mutation. The breeding of these animals leads to deformity, susceptibility to illness, and neurological deficits, among other conditions.

I hope that on reading this report and reflecting on the lived experiences of the cats we highlight, you will join us in calling for an end to big cat captivity in the name of entertainment.

For the animals,

Angela Grimes, CEO

# EXECUTIVE SUMMARY

This report seeks to explore the significant concerns surrounding big cats in captivity. Beloved and revered the world over, these animals are commonly displayed in zoos and other animal exhibits because of our desire to see them in the flesh, despite the toll this takes on the animals themselves. Examples of our findings include:

- Zoos fail to provide adequate environments for big cats, including lack of space, lack of ability to hide from public view, and the regular practice of locking big cats in tiny night quarters during the hours when zoos are closed. The latter often results in big cats spending the vast majority of their time significantly confined.
- Social and behavioral needs are not met in zoos. For example, solitary big cats are often forced to live with conspecifics, and social big cats are prevented from creating natural prides. Big cats are prevented from hunting live prey – a behavior fundamental to them – while often housed alongside prey animals who also suffer stress from being forced to live near predators.
- Inbreeding of big cats has become commonplace due to limited genetic diversity among captive populations, as well as unethical and deliberate inbreeding of color morphs such as white tigers and lions, resulting in significant health issues for the cats involved.
- Due to the inbreeding of big cats in zoos, as well as their habituation to humans, big cats kept in zoos are generally not candidates for release to the wild. As such, extensive and ongoing breeding programs simply serve to ensure that zoos remain “stocked” with these animals.
- Monitoring of data on big cats in captivity is incomplete, with significant numbers of individuals disappearing from studbooks – the databases ostensibly responsible for tracking living big cats in captive facilities.
- The licensing system intended to implement the Animal Welfare Act in the United States only achieves superficial monitoring of big cats in zoos, due in part to its risk-based assessment protocols as well as lack of meaningful information in reporting that would allow effective public understanding and external expert oversight.
- Despite the introduction of the Big Cat Public Safety Act in the U.S. in early 2023, some facilities continue to engage in dangerous activities with big cats, both in violation of, and in compliance with the new law.
- Zoos around the world have killed healthy big cats due to overcrowding and lack of perceived usefulness to breeding programs. Other healthy big cats have been killed when human error or enclosure failure allowed their escape, or when attacked by conspecifics in their enclosures.
- Due to all the issues above, and others, the overall health and welfare of big cats is compromised in zoos. This results in high mortality (particularly in infants), and recognizable signs of stress in the form of significant occurrences of stereotypic behaviors.

The problems with holding big cats captive are significant and cannot be mitigated in captive settings. Generations of big cats have now been displayed in zoos, but they have never adapted to imprisonment and continue to show us they are suffering through repeated behavioral indicators. It is time for us to accept the burgeoning data on the myriad ways that big cats fail to thrive in zoos and take concrete steps to bring an end to their captivity. Keeping big cats in zoos clearly serves no positive end, except for those who want to pay to see them. For these awe-inspiring animals to be reduced to living exhibits is unconscionable. We call upon the zoo industry to take immediate steps to safeguard future generations of big cats by phasing out their presence in the unnatural and harmful zoo environment.



# THE LANDSCAPE OF CAPTIVE BIG CAT POPULATIONS IN NORTH AMERICA

## Lions

According to the North American regional lion studbook (Pfaff, 2012), the captive population of African lions with known lineage was 219 individuals exhibited in 71 zoological institutions in 2012, with the first entry dating back to 1965. Of these individuals, 79 lions were founder animals (unrelated individuals who help establish a population). The Species Survival Plan Program (SSP) and Association of Zoos & Aquariums (AZA) Felid Taxon Advisory Group (TAG) have recommended that only one subspecies of pedigreed lions of a known heritage be bred in North America: South African lions (*Panthera leo krugeri*) because “lions are continuing to decline in the wild and are now being imported by North American institutions.” The studbook makes no mention of future plans to introduce lions to their native habitats from zoo breeding programs, despite removing them from these areas for zoo collections and acknowledging that they continue to decline in the wild.

The studbook acknowledges that while albinism and melanism are extremely rare in wild lion populations, white lions in the wild have been observed in the Transvaal region of South Africa. The AZA Lion SSP began discouraging the breeding or acquisition of this color morph in 2011, as all individuals in zoos demonstrating this rare coloration are severely inbred and suffer serious health issues like compromised immune system function and developmental defects such as spinal problems. Despite AZA discouraging the breeding of white lions, zoos not involved in the lion Species Survival Plan program around the world continue to do so despite the detrimental health risks. For more on this issue, please see page 19.

Our studbook analysis revealed that, between 1965 and 2012, 12% (80 individuals) of all lions were wild caught and 88% (594 individuals) were captive born. Lions lived for an average of 4.1 years (range: 1 day to 21 years), though the mean lifespan not including individuals who died before one year of age was 11.1 years. The average lifespan for a wild lion is up to ten years old (Britannica 1, 2023). Of the historical population, 107 individuals died before they reached one year of age, demonstrating an infant mortality rate of 23%. Individuals experienced an average of one transfer per lifetime (range: 0 to 5). Two lions, only noted in the studbook by their ID numbers, were transferred five times throughout their lives before being lost to the studbook data (Lost to Follow-up, or LTF): one male from 1990-1997, and the other male from 1996-2004. Both lions were born in Philadelphia, then transferred to Florida, then Ohio, then New Zealand, and then Australia before going missing. No lions were released into the wild.



## Tigers

The North American regional tiger studbook (Traylor-Holzer, 2013) includes all known Amur (or Siberian) tigers (*Panthera tigris altaica*) held in North American facilities with lineages traceable back to wild caught tigers, beginning with imports into the U.S. in the 1930s through 2013. Privately owned tigers of unknown species were not included in this studbook.

As of 2013, there were 155 Amur tigers registered at 52 North American zoos, with all but five individuals maintained in AZA institutions as part of the Species Survival Plan. Two of these tigers were known to be hybrids. The North American Amur tiger population grew substantially in the 1960s, peaking at around 230 individuals when the Tiger SSP was established in 1981. Since then, the North American population has been managed to meet the target population size of 150 individuals. In attempts to maintain a sustainable level of genetic diversity within the captive tiger population, wild-caught Amur tigers (e.g., orphaned cubs or “conflict tigers” who could not be released for reasons otherwise unspecified in the studbook) periodically entered the Eurasian Regional Association of Zoos and Aquariums (EARAZA) tiger program and provided opportunities for “occasional genetic supplementation of the Amur tiger ex situ global and regional populations.”

In 2019, In Defense of Animals flagged EARAZA for reports of Russian zoo officials removing young Amur tigers from zoos and illegally trafficking them to buyers in China, Kazakhstan, and other unknown locations. Russian zoos were also reported to have sent tigers to zoos with troublingly high death tolls, some of whom had become LTF following transfers (IDA, 2019). Along with the AZA, European Association of Zoos and Aquaria (EAZA), and Japanese Association of Zoos and Aquariums (JAZA), EARAZA remains one of the many zoo associations that make up the World Association of Zoos and Aquariums (WAZA) and holds responsibilities including maintaining studbooks to actively manage ex situ programs for Amur tigers and participating in the Global Species Management Plan for tigers (WAZA, 2023).

Closer examination of the studbook revealed that from 1933 to 2013, 96% (~1,530 individuals) of all tigers were captive-born, and 4% (64 individuals) were wild caught.

Tigers lived to an average of 7.36 years of age (range: 1 day to 23 years), though the mean age not including individuals who died before one year of age was 12.5 years. The average lifespan for a wild tiger is 11 years old (Britannica 2, 2023).

Four hundred and forty-three tigers died before they reached their first year of age, indicating an infant mortality rate of 31%. Tigers experienced an average of one transfer per lifetime (range: 0-10). One tiger, named Venus, was transferred 10 times throughout her life from 1978-1989 before she died in 1990. She went from Pittsburgh, Pennsylvania, back and forth between Topeka, Kansas, and Omaha, Nebraska, nine times, and once to Manhattan, New York. No tigers were released into the wild.

Of the 1,051 individuals for whom the studbook recorded death, 76% (795 individuals) died from unknown causes; 16% (173 individuals) from “euthanasia”;

3% (30 individuals) from stillbirths; 2% (16 individuals) from injuries from exhibit mates; 1% (12 individuals) from anesthesia/restraint; 1% (13 individuals) from infection; <1% (2 individuals) from old age; and <1% (3 individuals) from environmental/ behavioral conditions.

For more on the way in which the term “euthanasia” is manipulated by the zoo industry, see page 23.

## Cheetahs

The stated purpose of the International Cheetah Studbook (Marker & Johnston, 2019) is to register all cheetahs in the world (belonging to the *Acinonyx jubatus* subspecies) held in zoological and other facilities that breed animals. In some cases, cheetahs removed from the breeding population are housed at sanctuaries, rescue centers, or other facilities not involved in the active breeding program. Ostensibly, “the main goal of the world’s zoos [is] to manage the captive cheetah population without the need for wild-caught animals.” Of note, conservation of cheetahs in the wild is not mentioned as one of the stated goals.

According to the studbook, the captive global cheetah population in 2019 was 1,820 animals at 281 known facilities in 46 countries. Most cheetahs lived in North America (27.6%), followed by Southern Africa (25.6%), and Europe (22.1%). In total, 503 cheetahs were registered at 80 facilities in the U.S. and Canada in 2019. Of the 1,820 animals, 88% (1,604 individuals) were captive-born and 7% (128 individuals) were wild-caught. The origin of 88 animals (4.8%) is unknown. Of the 281 known facilities that held cheetahs in 2019, 10%, (30 facilities) saw cheetah births. However, 25.3% of cubs born in 2019 died in infancy.

In the historic population (consisting of 10,072 total individuals), 25% (2,544 individuals) were wild-caught from around 1967 to 2019 and 72% (7,266 individuals) were captive-born from around 1970 to 2019. Of the 7,257 individuals for which a cause of death was listed, 44% (3,215 individuals) died from unknown causes; 20% (1,476 individuals) from infection; 12% (895 individuals) by euthanasia;\* 4% (298 individuals) were stillborn; 3% (244 individuals) from injuries from exhibit mates; 3% (248 individuals) from environmental/behavioral conditions; 1% (130 individuals) of old age; and <1% (42 individuals) from anesthesia/restraint. The deaths of 28% of the entire historic population were unspecified.

\*NB: There is no distinction made in studbooks between true euthanasia (ending an animal’s life to prevent inevitable suffering or due to injury or illness for which prognosis is so poor that ending life is the kindest option) and killing healthy animals for zoo management purposes.

## Fatalistic Commonalities Between Big Cat Species in Captivity

Aside from unknown causes of death accounting for the single largest percentage of all recorded deaths for the species reviewed for this report, including cheetahs, tigers, and Amur leopards, it appears that euthanasia, infection, injuries from enclosure companions, and stillbirths accounted for the other largest percentages of big cat deaths across all species analyzed. Altogether, the total deaths of cheetahs, tigers, and Amur leopards in captivity due to “euthanasia” alone totals 1,094 individuals, while 270 total individuals died from injuries from enclosure companions from roughly 1967 to 2019.

Troublingly, these figures indicate that almost 300 big cats – from many species that spend most of their lives in solitude in the wild – died from injuries caused by unnatural and forced interactions with enclosure companions in a small captive space that offers no opportunity to escape a threat. This trend is not exclusive to big cats in captivity; trauma has been cited as the most frequent and serious cause of health problems in mixed species zoo exhibits, in addition to nutrition-related problems, infectious diseases, and parasitic diseases. Competition for resources including food and water, resting places, and establishment of territories,

may provoke fighting. Further, when frightened animals attempt to escape conflict, fleeing against fences or walls may also cause fatal trauma (Kaandorp, 2012).

## Exhibit Design

Of all the big cats, complete animal care manuals are available to zoos for jaguars, lions, and tigers on the AZA website (AZA, 2023a). The animal care manuals for each big cat species state that exhibits should be designed to accommodate big cats' normal activity patterns and provide the opportunity for animals to perform species-specific behaviors. However, the very act of keeping big cats in a captive environment, with the extremely small enclosure sizes compared to natural range sizes and near-constant presence of humans and other animals at a zoo, directly conflicts with these objectives.

For example, although the AZA highlights tigers as being a species exceptionally sensitive to loud noises and vibrations (many of which are likely caused by thousands of zoo visitors each day) and experience heightened levels of stress and aggression as a result, zoos continue keeping them in captivity. At the National Zoological Park (NZP) in New Delhi, India, a study revealed a positive correlation between visitor density and noise with stereotypic behaviors in Bengal tigers (*Panthera tigris*); during periods of high noise and density of visitors, tigers experienced higher rates of stress and altered behavioral patterns, including an increase in the display of stereotypic behaviors (Vashisth et al., 2023). Similarly, a study at Parco Natura Viva in Italy found that Amur tigers and snow leopards performed fewer species-specific behaviors and exhibited significantly longer periods of inactivity when visitors were present.

Providing opportunities to perform species-specific behaviors can improve the health and wellbeing of animals in captivity (Spiezio et al., 2023). Zoos attempt to justify keeping tigers and other big cats known to be stressed by visitor presence by providing enclosure elements that function as auditory and visual barriers (e.g., vegetation, rocks, and multilevel terrain). These elements may dampen the intensity of constant stressors (but will never completely eliminate them), which clearly negatively affect their welfare to such an extent that warrants these extensive enclosure modifications (AZA Tiger SSP, 2016). Similarly, although most big cats are shy and elusive, the AZA prioritizes the need for the public to see them as much as possible.

In efforts to quantify the occurrence of stereotypic behavior in captivity held species, a review carried out across 20 species of terrestrial carnivores (Clubb & Mason, 2007) estimated stereotypic pacing in 20 species of captive Felidae to range between 10.5–48.0% of observed time, with tigers pacing for an average of 16.4% of observed time. Across all species, they found that the incidence of stereotypic pacing was best predicted by median daily travel distance in the wild and concluded that a wide-ranging lifestyle was a major risk factor for poor welfare among carnivores in captivity. This is particularly relevant for Amur tigers, who represent the widest ranging species of all big cats (in some cases ranging over 965 mi<sup>2</sup>) and are thought to demonstrate a home range size only routinely exceeded by polar bears (Veasey, 2020).

As most big cat species are naturally solitary (apart from lions) and territorial, the process of introducing animals (even for mating purposes) is high-risk and unpredictable. As such, the big cat animal care manuals acknowledge the need for enclosure designs that enable individuals to be separated and prevent any animals from being cornered to handle the potentially fatal conflicts that arise between individuals. When keeper intervention does not occur quickly enough, and without the opportunity for an animal to escape an attack, severe injury or death are likely outcomes (AZA Lion SSP, 2012).

Relatedly, each animal care manual acknowledges the powerful strength, speed, and carnivorous nature of big cats, and advises extreme caution to all animal management staff in the event of an escape or human error (like forgetting to secure a lock or standing too close to an enclosure). For example, the AZA Tiger SSP (2016) recommends that all institutions include tigers as one of the key species in any animal attack emergency drills given the inherently dangerous nature of big cats. The dangers presented by big cats in captivity has been confirmed by hundreds of documented mauling incidents and deaths that have occurred in the U.S.; between 1990 and 2023, at least 400 dangerous incidents involving captive big cats occurred in 46 states and the District of Columbia, including the deaths of five children and 20 adults (HSUS, 2023). As a result, zoos have implemented safety measures to mitigate these risks that also negatively impact big cat welfare, including confining them to smaller indoor enclosures overnight.

By design, and largely for what are intended to be “educational” purposes, zoos often group animal exhibits based on shared geography, oversimplified versions of similar climates, and/or comparable distribution of animals (WAZA, 2016). For example, many zoos have areas entitled “African Savannah,” “Asian Rainforest,” or “South American Jungle” but these are little more than design themes which bear no meaningful resemblance to the areas they claim to replicate. Additionally, designing a zoo in this way negatively impacts animal welfare, as the nature of these broadly themed exhibits requires predominantly solitary, predatory, and prey species to

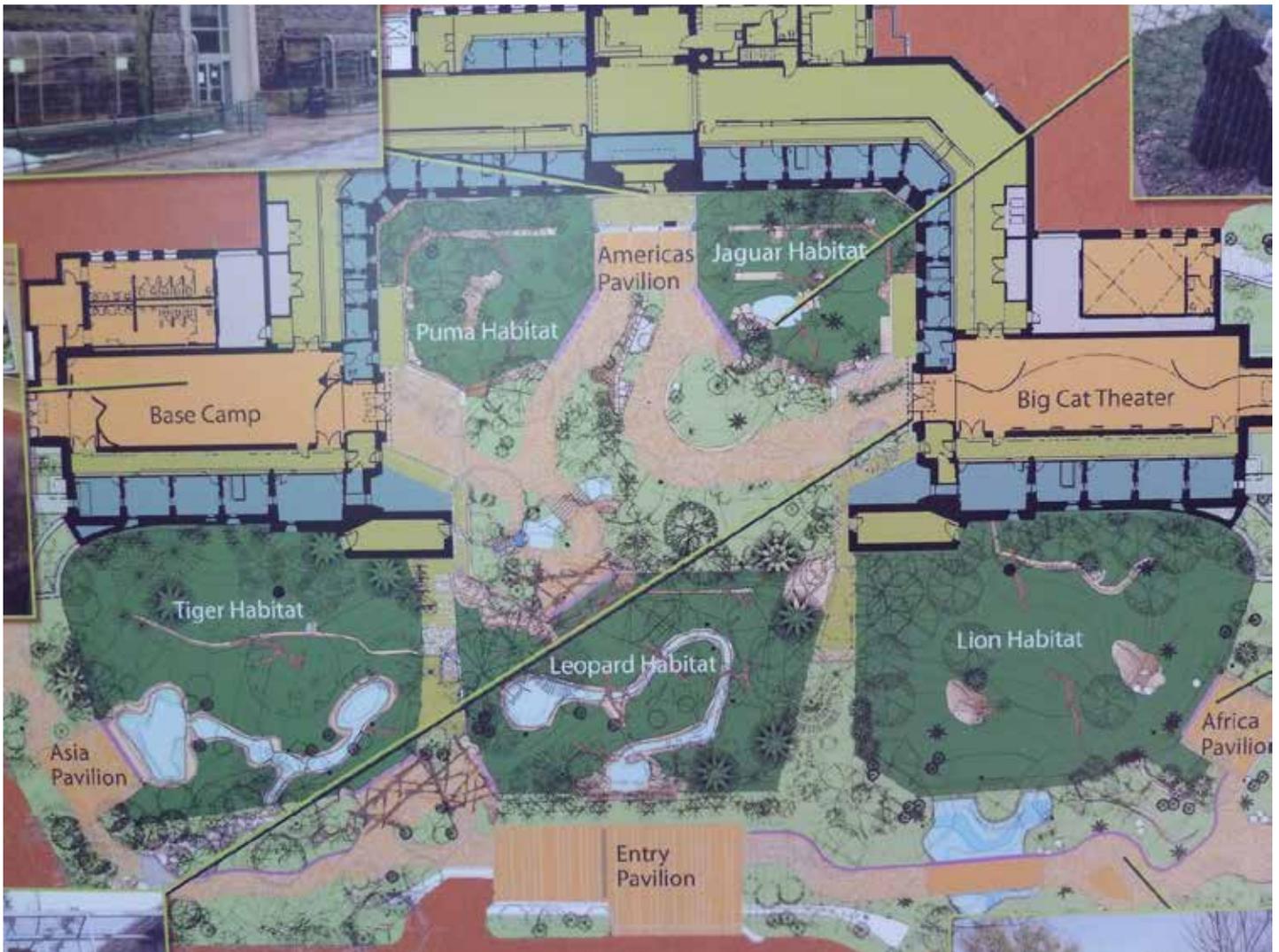


Figure 1. Exhibit plan from the Philadelphia Zoo, Pennsylvania, in 2010, showing that all big cat species habitats are housed in the same section. This plan also illustrates the basic, generalized exhibit themes at the zoo, including the “Africa Pavillion,” “Asia Pavillion,” and “Americas Pavillion” (Zoo Chat, 2010).

coexist in unnatural ways that conflict with their many evolved behaviors to thrive in these roles in the wild. Despite these known predator/prey dynamics in nature, the lion animal care manual is the only one of the three reviewed that acknowledges that the proximity of prey species or other big cat enclosures to big cats—particularly solitary species—can be stressful to the animals. The tiger animal care manual states that tigers can generally be housed near other large felids, but since they are large predators, they are not recommended for mixing with other species.

Regarding intra-species interactions, tigers have scent glands on their tails, paws, and face, and often leave olfactory signals for other tigers using various methods including urine spraying, scraping surfaces with deposits of urine, feces, or anal gland secretions, clawing, cheek rubbing, and vegetation flattening. In addition to these chemical tactics, tigers also often engage in nighttime patrols of their territory. During these patrols, they may renew scent marks and vocalize to reinforce their ownership of the area. In the wild, territorial patrols help deter other tigers from entering established territories, while simultaneously alerting prey to their presence and proximity (Smith et al., 1989). One can imagine the elevated frustration level tigers and other big cats in captivity must experience when constantly smelling the “territorial” markings of other big cats in a zoo (without the option to properly defend it), making them constantly aware of their presence.



Figure 2. Updated picture of the Philadelphia Zoo map in 2023, confirming that most of the big cat enclosures remain in the same problematic location (Philadelphia Zoo, 2023).

There is the assumption in the zoo industry that predator and prey species (or multiple territorial predator species) will habituate to each other over time in a captive setting. In a study that tested prey species' awareness to a predator in a zoo by studying an exhibit with five species of African ungulates separated by a dry moat from their natural predator, the African lion, the researchers measured the ungulates' activity budgets in response to various lion behaviors. The results indicated that ungulates spent significantly less time in seven behaviors (including lying down, feeding, drinking, sniffing the ground, sniffing each other, defecating, and urinating) when the predator was visually present than when the predator was visually absent. The authors concluded that the changes in ungulate behavior indicated an awareness of the predator; for example, the prey spent less time with their heads down (engaging in feeding, drinking, and sniffing the ground behaviors) when the predator was present, allowing more time for predator surveillance. These results indicate that the ungulates in this zoo exhibit modified their behavior when a lion was visually present, potentially also indicating increased stress levels because of more time spent in a vigilant state (Stanley & Aspey, 1984).

This deleterious predator/prey dynamic that negatively impacts animal welfare in captivity holds true even for animals that do not share a recent evolutionary history or captive-raised animals that were never taught predator-avoidance fear or behaviors

from parents or conspecifics. For example, one field study (Hettena et al., 2014) investigated the ability of mule deer to discriminate among familiar predators including coyotes and mountain lions versus an evolutionary relevant yet unfamiliar predator with whom mule deer had no recent exposure: locally extinct wolves. They discovered that the mule deer not only responded to each of the predator sounds but discriminated between each predator individually, including the wolves extinct from the study area since the early 1900s. As highlighted by these results, the fear and avoidance

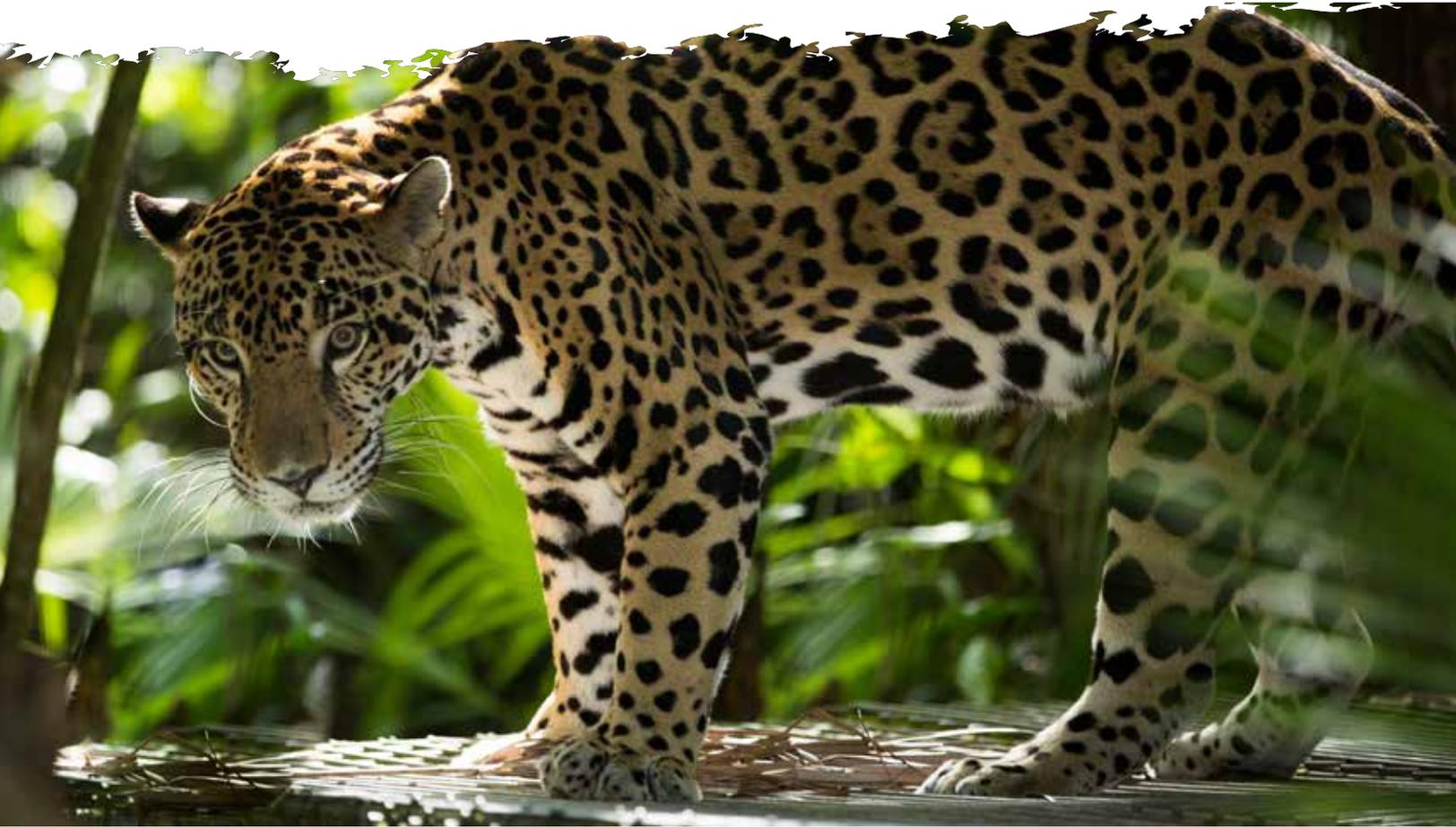


behaviors demonstrated by prey species are genetically engrained in these animals, and likely do not diminish in intensity or disappear completely based on the adaptivity of animals to unnatural captive settings.

In the same ways big cats have evolved to use scent marking and vocalizations to establish their territory to warn other big cats, prey have simultaneously evolved to detect these chemical warnings to avoid such spaces. Research confirms that the presence of predators can induce extreme stress and powerful physiological responses in prey, including the following distinctive behavioral effects: inhibition of activity; suppression of non-defensive behaviors like foraging, feeding, and grooming; and movements to locations where such odors are not present. Further, predator odors can have profound effects on the endocrine system of prey animals by suppressing testosterone and increasing levels of stress hormones including corticosterone and Adrenocorticotrophic hormone (ACTH) (Apfelbach et al., 2005).

# CASE STUDY:

## NATURAL PREDATOR/PREY BEHAVIORS REMAIN IN CAPTIVITY



### Valerio

In 2018, a male jaguar named Valerio escaped his enclosure at the New Orleans Audubon Zoo and killed nine animals, including three foxes, five alpacas, and one emu. An animal keeper realized Valerio had escaped his enclosure in the early morning hours before the zoo admitted any visitors upon hearing sounds of animals in distress during their routine feeding time. Luckily, zoo staff tranquilized Valerio and secured him before any visitors entered the zoo grounds, and no humans were hurt during his escape. The zoo's managing director believed that Valerio escaped by biting through a steel-cable barrier that comprised the roof of the habitat, and then slipped through the resulting 8 inch by 10-inch

gap left in the cables. Officials were unsure how long Valerio roamed free before the escape was discovered. Although there was an outer perimeter fence designed to keep animals from escaping the zoo grounds, the managing director stated that it would be “conceivable” that the cat might have been able to eventually breach the outer perimeter and escape the zoo grounds (CBS/AP, 2018). This incident confirms that animals retain their natural instincts, like hunting and killing live prey, despite being confined to a captive environment. Troublingly, the animals targeted as Valerio's prey did not have any opportunity to escape the fatal attacks during this incident.



**THEIR BEHAVIOR AND MOVEMENT ARE SEVERELY RESTRICTED FOR MOST OF THE TIME THEY WOULD BE MOST ACTIVE IN THE WILD.**

## **Jaguars: Zoo Enclosures in Detail**

According to the jaguar animal care manual, the AZA “strongly recommends” that zoos provide outdoor access for jaguars. The recommended AZA minimum enclosure sizes are as follows: an outdoor enclosure no less than 984 ft<sup>2</sup> with 50% additional square footage for each additional animal. Water features (not included in the minimum enclosure size dimensions), like streams, pools, ponds, and waterfalls, should be 20% or less of the total exhibit area, meaning that jaguars may be allocated as little as 787 ft<sup>2</sup> (0.02 of an acre) usable land locomotory space. Indoor enclosures should be no less than 20 ft x 15 ft and a height of at least 8 ft, with 50% additional square footage per additional animal (AZA Jaguar SSP, 2016).

Many zoos confine their big cats to the smaller and less complex indoor enclosures (sometimes referred to as “night houses” or “off-exhibit space”) when visiting hours at the zoo conclude for safety purposes (Bit Cat Rescue, 2024), meaning that their behavior and movement are severely restricted for most of the time they would be most active in the wild. For example, according to a 2010 AZA Lion

SSP Husbandry Survey, only half of the responding institutions allowed lions to have access to outdoor enclosures overnight. Reasons for locking animals in at night included escape concerns, weather concerns, lack of staff on grounds at night, and security of the entire facility and/or park (AZA Lion SSP, 2012). This means big cats may spend most of their time locked away in this manner.

In 2014, data from 34 of 47 AZA institutions holding jaguars confirmed that the average primary habitat area was approximately 2,600 ft<sup>2</sup>, but even at 2.6 times larger than the minimum recommended enclosure size, 2,600 ft<sup>2</sup> is equivalent to just 0.06 of an acre (about the area of a tennis court). Secondary, typically off-exhibit space averaged 532 ft<sup>2</sup> (AZA Jaguar SSP, 2016). In the wild, the home range of jaguars has been established to be between 9,920-15,104 acres for females and at least double that for males (Schaller & Crawshaw, 1980).

Independent analysis of 123 enclosure sizes provided by 34 North American zoos across big cat species including tiger, lion, cougar, cheetah, snow leopard, Amur leopard, and jaguar indicated an average enclosure size of 10,926 ft<sup>2</sup>, equivalent to 0.23 acres (about twice the area of a basketball court), with a minimum enclosure size of 450 ft<sup>2</sup> (the size of both the Amur and snow leopard enclosures at the Denver Zoo), and a maximum of 90,000 ft<sup>2</sup>, equivalent to 2.1 acres (the tigers enclosure at the San Diego Safari Park) (Zoo Chat, 2016), though this enclosure is split between multiple tigers. In 2023, the safari park housed six Sumatran tigers in this exhibit, including two cubs born in July 2023 (The San Diego Union-Tribune, 2023).

The AZA emphasizes that trauma from an enclosure companion is the most common outcome resulting from a small exhibit, which can be fatal for big cats. Therefore, housing jaguars alone or in same-gender or sibling pairings is recommended. One of the most specific recommendations pertaining to enclosures given in the jaguar animal care manual is the following statement aimed at maintaining the SSP population at a desirable/sustainable size: “Prior to designing a new jaguar habitat, institutions should consult the AZA Felid TAG to identify which AZA felid SSP populations have the greatest need for additional spaces. This will ensure that your facility is contributing to increasing the SSP’s long-term sustainability.” Therefore, instead of focusing on the individual needs of animals who may need to be allocated more space to improve their welfare, the AZA instead prioritizes contributing to the SSP, which continues to add more animals into already too-small spaces.

Like the tiger animal care manual, the AZA jaguar animal care manual acknowledges that visitor presence increases stress and the frequency of stereotypic behaviors in these animals (including self-trauma and pacing) in captivity. To help reduce the development of these behaviors, they recommend using rocks to provide visual and auditory barriers.

They also note that exhibits should be designed to minimize psychological pressure from viewers; vegetation, rockwork, and climbing structures are identified as features that may help reduce stress.

Despite acknowledging that when jaguars are at rest, they often prefer to be in a spot where they are either hidden from view or high enough to be provided a wide field of vision, the AZA suggests that, because most people come to zoos to see animals, “the latter is often the easiest compromise.” This captive management decision directly conflicts with jaguar biology: studies of wild jaguars reveal peaks in their activity around pre-dawn and dusk (0330–0600 hours and 1830–2100 hours), yet most zoos operate with disruptive visitor activity during most of their natural resting time, occurring largely during the daytime (between 0900–1700 hours).

The animal care manual makes it clear that the jaguar is not a candidate for any mixed species or free-range exhibits; nor are they suitable as an “ambassador animal.” The AZA defines “ambassador animals” as animals taken outside of their primary enclosure to assist in keeper presentations with the intended goal of inspiring “visitors and community members to take action to better care for animals and conserve the natural world” (AZA, 2022). Yet, the AZA does not mention the potential negative impacts of having jaguar enclosures close to other species, including prey species and other big cats. They do, however, mention the severe risks associated with housing jaguars next to conspecifics, advising that “No unsupervised physical contact should be possible between animals in adjacent enclosures. The ears of animals housed side-by-side have been bitten, and one animal’s tongue was so severely injured that the animal bled to death. Jaguars are very possessive, and once they are in possession of something, they are difficult to disengage. They... can bite through mesh as heavy as 9-gauge chain link” (AZA Jaguar SSP, 2016).

# CASE STUDIES:

## FATALITIES DUE TO ZOO DESIGN AND HUMAN ERROR



Figure 3. A Jaguar at the Jacksonville Zoo, Florida, in 2021, © Rob Bixby, Flickr Creative Commons License.

### Zenta

In 2021, a 21-year female jaguar named Zenta died at the Jacksonville Zoo in Florida after getting in a fight with a 12-year-old male jaguar named Harry. According to the deputy zoo director, “Zenta’s death [was] the result of a terrible mistake... Both jaguars were contained at all times and our team responded safely and swiftly.” The fight occurred in a holding complex after Harry was brought in for an examination. Keepers tried to separate the animals but were unsuccessful. A special team was called to immobilize Harry, but Zenta was already dead by the time they arrived. Zenta arrived at Jacksonville Zoo and Gardens in 2006 from a private zoo, and Harry was born at the park in 2009 (CBS News, 2021).



Figure 4. Bhutan and Bala at Busch Gardens Tampa Bay, Florida, in 2011, © Scott Akerman, Flickr Creative Commons License.

## Bala

In 2019, Bala, a 13-year-old female Bengal tiger who had lived with her brother Bhutan at Busch Gardens in Florida since 2007, died after suffering a “major injury” following an “atypical” fight between the siblings. The zoo stated that Bala was transported to the park’s Animal Care Center for emergency care directly following the incident, but despite the veterinarians’ best efforts, her wounds were too great, and she was euthanized. Busch Gardens went on to share that although wild tigers are “solitary and territorial,” Bala and Bhutan had lived together for 12 years without exhibiting problematic behavior (People, 2019). Bala was often referred to as the “redhead” of the park’s tigers, due to her strawberry white/blonde coloration. The lighter coloration was caused by a recessive gene, making a tiger’s striping much paler than usual. Busch Gardens had announced the year prior, in 2018, that it had earned the Humane Certified seal through the American Humane Conservation program, “demonstrating the good welfare and treatment given to the creatures in its care” (Tampa Bay Times, 2019).

## Jamila

In 2013, a six-year-old African lioness named Jamila died at the Cheyenne Mountain Zoo in Colorado after a fight with a two-year-old male lion named Abuto in the main yard of the exhibit. Despite attempts to stop the fight with a fire extinguisher and noise distractions, animal keepers were unsuccessful. They did, however, separate Jamila’s mother just in time, but could not stop it before it turned fatal for Jamila. Officials at the zoo stated that fights between lions in the wild and captivity are not uncommon, and that female lions often test younger male lions as they attempt to overtake a pride. They reiterated that animals fighting or killing each other in captivity happens occasionally. The zoo also said that prior to the attack, they had rotated the lions to limit interactions with each other because Abuto was introduced to the others gradually. He and Jamila had fought in mid-August, but reportedly had been getting along since then. Abuto was chosen for the AZA’s SSP program because of his genetic compatibility with Jamila’s two sisters. Zoo officials said they will reevaluate the lion introduction process, though the breeding program would continue unchanged (The Gazette, 2013).

# CAPTIVITY-RELATED HEALTH ISSUES



Figure 5. Two lionesses at the Cheyenne Mountain Zoo, Colorado, in 2012, © Mark Byzewski, Flickr Creative Commons License.

Several health issues are experienced by jaguars more frequently in managed captive settings than in the wild. A study on the morbidity and mortality of jaguars in AZA zoos from 1982-2002 (Hope & Deem, 2006) reviewed these diseases, and discovered that the most common non-infectious diseases in managed jaguar populations included a high incidence of neoplasia (the uncontrolled growth of abnormal cells), dental issues including calculi and tooth fractures, and lacerations, with or without subsequent abscess formation. Jaguars in captivity also appear to be uniquely predisposed to develop gynecological cancers; a high prevalence of ovarian, endometrial, and mammary gland cancers have been identified in managed jaguars through the AZA Contraceptive Advisory Group Health Surveillance program. Jaguars are the only felid to date to have documented incidents of ovarian cancer, affecting more than 50% of the aged population. This combination of ovarian, uterine, and mammary

cancers is linked to a genetic mutation in humans, which is of concern for the AZA Jaguar SSP captive breeding population (AZA Jaguar SSP, 2016).

Many infectious agents have been documented to cause morbidity and/or mortality in jaguars and other big cats in captivity, including protozoan, bacterial, and viral pathogens (including canine distemper virus, feline infectious peritonitis, and feline immunodeficiency virus). It is also assumed that jaguars are susceptible to the common respiratory disease agents of domestic and nondomestic cats. There are currently no euthanasia protocols for jaguars recommended by the AZA (AZA Jaguar SSP, 2016).

For tigers, congenital problems have been reported, and in some instances, may be related to inbreeding. Like jaguars, tigers commonly experience lacerations and abscesses, particularly lacerations from fight wounds that require surgical intervention. Tigers

also experience certain gastrointestinal syndromes that have been referred to as “general adaptation syndrome,” and occur commonly enough to also be known as “tiger disease.” The proposed cause of “tiger disease” has been reported to be due to pancreatic dysfunction or disruption of gastrointestinal flora, largely resembling chronic inflammatory bowel disease. Stress was documented as the cause of these problems in one report that correlated the digestive upsets with sudden changes in the tiger’s environment (AZA Tiger SSP, 2016).

Systemic bacterial diseases introduced through raw meat have been found in tigers living in zoos such as bacterial meningitis from *Klebsiella* and *Diplococcus*. *Colisepticemia*, *Shigella flexneri*, *Salmonella* spp., *Corynebacterium pyogenes*, and *Clostridium perfringens* have also been observed, all of which have caused fatal diseases in tiger cubs. Salmonellosis, caused by *Salmonella typhimurium*, which occurs either sporadically or as outbreaks, is a recognized medical problem in tigers. To prevent salmonellosis in tigers, the AZA recommends that there should be quality control at the production source of raw meat intended for big cat consumption, the diet should be maintained frozen prior to feeding, and the thawing process and feeding method must reduce possible contamination.

Necropsy records of 165 Siberian tigers submitted to the AZA Amur Tiger SSP by participating institutions were reviewed to determine the most frequent causes of morbidity and mortality from 1915–2000 (Escalante, Nguyen & Lewandowski, 2011). The study found that the most common diagnosis was neoplasm (25.5%) with mammary adenocarcinoma the most common in females (51.9%). Degenerative problems were noted in most tigers (79%). Musculoskeletal abnormalities, including arthritis, spondylitis, and dysplasia, occurred in 21.8% of the cases. Renal disease was noted frequently (27.3%). Trauma was occasionally noted as the primary cause of death (12%), most frequently in neonates (Lewandowski 2003).





# INBREEDING AND (MIS)MANAGEMENT IN CAPTIVITY

Figure 6. A white lion at Siegfried and Roy's Secret Garden in Las Vegas, 2010, © Born Free, Flickr Creative Commons License.

White lions and tigers are commonplace in zoos around the world, with zoological institutions often describing them as “rare” (Toronto Zoo, 2015) usually with the implication or suggestion that they belong to a distinct species (Cincinnati Zoo, 2023).

Rather than a “rare” species of animal, as has been suggested by some members of the zoo industry, these animals are in fact color morphs and not distinct species. While white color morphs do occur occasionally in the wild, they are few and far between. In the zoo industry, because white lions and tigers draw visitors, multiple generations have been created by deliberately inbreeding family members who demonstrate this genetic anomaly. As such, white lions and tigers in zoos are, by default, inbred.

In recent years, zoo associations have tried to distance themselves from this unethical practice, which has proven to result in physical deformities and illness in the inbred animals exhibited by their members and other zoos around the world.

In 2011, the AZA produced a position paper that stated: “intentional breeding to achieve rare color-morphs such as white tigers, deer, and alligators, has been clearly linked with various abnormal,

debilitating, and, at times, lethal, external and internal conditions and characteristics (AZA, 2011). While this was a positive step, the AZA had previously made no public comment on white color morphs, despite the keeping and subsequent breeding of color morph big cats occurring in their zoos since the first white tiger was imported to the National Zoo in 1960 (Karie & Sargent, 2019).

Recently kept white tigers and/or lions have been documented in the following North American zoos:

- The Mirage Hotel, which was home to the infamous Siegfried and Roy show with big cats. The attraction closed in 2023 after 30 years (WildCat Ridge Sanctuary, 2023). The animals then moved to the GFAS accredited WildCat Ridge Sanctuary. The facility was never certified by the AZA, but in 2017, received certification from American Humane, the organization responsible for the “no animals were harmed” notification on films and television shows.
- Wildlife World Zoo (Litchfield Park, Arizona, USA) advertises its white tiger exhibit, along with other unethical practices such as wild animal encounters with animals such as snakes and sloths.



Figure 7. Two white tigers at the Cincinnati Zoo, Ohio, in 2009, © David Ellis, Flickr Creative Commons License.

- Project Survival's Cat Haven (Dunlap, California, USA) is home to at least one white tiger. An intern was killed by a lion at this facility in 2013 (ABC News, 2013). The owner appears to enter the animals' enclosures based on a picture on his website with his head resting on a lion's head. The website makes clear that the facility does not consider itself a sanctuary.
- Toronto Zoo (Toronto, Canada) moved four white lion cubs born in 2015 to Parc Safari in Quebec (Parc Safari, 2024) in 2016 (CBC News, 2026). It is unclear if the parents are still alive and still living at Toronto Zoo. At least one of the white lions, Fintan, was still living at the zoo in 2023, when news reports shared news of a dental procedure he underwent at that time (CTV News, 2023).
- Cincinnati Zoo (Cincinnati, Ohio, USA). The last white lion, Gracious, housed at Cincinnati Zoo died in 2022. She was the daughter of a white lion brought to the zoo in 1998 by Seigfried and Roy (see above). The zoo also housed white tigers and actively bred them until the AZA mandated that its members stop doing so in 2011. The zoo's last white tiger died in 2018. Since the 1970s, it has been reported that the Cincinnati Zoo bred more than 70 white tigers despite birth defects being allegedly recognized since the third generation (Zoochat, 2006).
- Out Of Africa (Camp Verde, Arizona, USA). This zoo advertises shows where keepers interact directly with tigers. Blogs on the zoo's website show white tiger(s) being displayed as part of this show.

The number of white color morph big cats in zoos outside of AZA membership is unknown.

Inbreeding is not only an issue for white lions and tigers. While the white color morphs provide a clear visual confirmation of inbreeding practices in zoos, studies have shown severe inbreeding in wider big cat populations. A study carried out in 2017 on the lion population of the UK's flagship zoo, The London Zoo, found that decades of inbreeding from one founder population of just 9 lions led to the premature death of 39 out of 57 cubs born there (The Irish Times, 2014). Another UK zoo, Longleat Safari Park, killed five of its lions – a mother and her cubs – due to aggressive behavior allegedly caused by inbreeding (BBC, 2014). Concerns over inbreeding of lion populations in captivity are not new. Articles dating

in 1983 were responsible for 69.4% of the founder representation of the living population at that time. 70% of the population had a positive inbreeding coefficient.

Due to the continued decrease in import of wild animals to zoos due to international agreements such as the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) and a general rejection of this practice as unethical and damaging to conservation, it can be assumed that genetic viability remains low, and inbreeding of big cats in zoos can only have increased in the intervening

**CONCERNS OVER INBREEDING OF LION POPULATIONS IN CAPTIVITY ARE NOT NEW. ARTICLES DATING BACK ALMOST 40 YEARS SOUNDED ALARM BELLS ON THIS ISSUE.**



back almost 40 years sounded alarm bells on this issue following research surrounding reproductive success of both free-living lions and lions in captivity, with warnings for captive populations made particularly urgent (Wildt, D.E. et al., 1987). A peer reviewed paper published in 1983 highlighted inbreeding of tigers, finding that six animals out of the approximately 1,000 Siberian tigers held in zoos

years since these studies. Inbred big cats experience higher mortality, shorter lifespans, and birth defects, among other issues. Not only that, but while zoos rarely release animals into the wild, it is clear that inbred animals could not in good conscience be introduced to wild populations.

# CASE STUDY

## KENNY THE WHITE TIGER

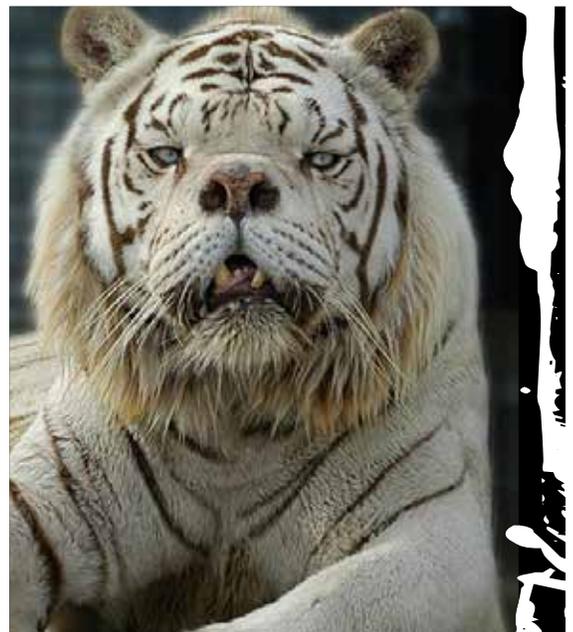
Kenny the white tiger was born in a private zoo in Arkansas. He was the offspring of brother and sister, Loretta and Conway, and had severe facial deformities, which earned him the cruel title of “world’s ugliest cat.” With a white coat – a sign of inbreeding – a significant underbite, crossed eyes, and a flat face, Kenny’s miserable start to life saw him living in squalid conditions in the breeder’s private facility. Kenny was a draw for visitors, thanks to his unusual appearance, which the breeder claimed was caused by the cat repeatedly running into walls – a claim that was clearly fabricated. Of the animals born to Loretta and Conway, only Kenny and his brother, Willie – who had a more typical appearance other than being severely cross-eyed – died at birth or were stillborn.

Kenny was eventually rescued by GFAS accredited sanctuary, Turpentine Creek, where he was able to live out his days before his premature death at ten years old (around half the age of the potential lifespan of tigers). The breeder attempted to charge the sanctuary thousands of dollars for Loretta, Conway, Willie, and Kenny, but when the sanctuary refused to engage in commercial trade in the animals, the owner agreed to allow them to be rehomed “free of charge.”

While Kenny suffered a miserable life before he was rescued, his legacy has been to help increase understanding of the cruel and unethical practice of inbreeding big cats to produce color morphs. In part thanks to the publication of his story, zoos have now taken measures to end the keeping of white lions and tigers going forward (Kitching, 2019).



**Figure 8.** A white tiger at the Bratislava Zoo, Slovakia, in 2019 demonstrating Strabismus (crossed eyes), a common health issue associated with genetic inbreeding, © Tambako The Jaguar, Flickr Creative Commons License.



**Figure 9.** Kenny the white tiger in 2004 at the Turpentine Creek Wildlife Refuge, Arkansas, © Turpentine Creek Wildlife Refuge.



# "EUTHANASIA"

Euthanasia in its true sense means the humane killing of an animal who has either injury or illness that is causing, or will cause, significant suffering and/or results in poor prognosis for recovery. Referred to euphemistically as “good death,” true euthanasia is carried out only in the interests of the animal, without consideration of other factors which might benefit humans, such as perceived usefulness to humans or lack of space or capacity to care for them (Bekoff, 2018). In zoos, euthanasia can mean the use of true euthanasia to prevent suffering or to expedite an inevitable death, or it can be a practice of what is referred to as “management euthanasia.” This euphemistic and misleading use of the term means to kill healthy animals deemed surplus to requirements specified by the zoo, including (but not limited to) spatial, financial, perceived entertainment value, animal management, and genetic diversity related factors. In zoos belonging to the European equivalent of AZA, EAZA, it is estimated that up to 5,000 healthy animals are killed every year. The AZA flatly denied that their zoos kill healthy animals in a press statement in 2015 (King, 2015), but it is unclear whether other North American zoos engage in the practice. There is no reason to believe that practices in North American zoos differ from their European counterparts. In a study that attempted to quantify the frequency of the killing of healthy animals in the U.S. under the false name of “euthanasia,” 33 unnamed zoos were asked about their killing practices. Forty-five percent of the zoos said they were killing healthy animals; in this cohort, 79% were killing mammals (The New Yorker, 2017).

“Management euthanasia” might be used in cases when zoos have deliberately bred animals who are then deemed to be of the wrong genetic lineage (overrepresented, inbred, or otherwise undesired by the zoo), when an individual is causing management issues in their social group, when animals escape or otherwise are considered dangerous, or if there is overcrowding in the limited space provided by zoos. Importantly, the circumstances for management euthanasia can directly be traced to the way zoos hold animals captive, manipulate their breeding practices, or fail to properly secure them and thus create dangerous situations for staff and visitors.

Anecdotal examples of big cats being “euthanized” in zoos include:

- A male lion who was killed after escaping his enclosure at an Ottawa zoo (Seymour & Deachman, 2016). The zoo stated that “the decision to euthanize Zeus was not taken lightly... but the potential danger to the public left them no choice.”
- A female lion was shot and killed after an escape caused by human error in a Belgian zoo in 2018. A headline in the Associated Press read “Lion euthanized after escape in Belgian Zoo” (El-Touni, 2023).
- In a tragic incident, a zoo intern was killed by a lion when a gate become blocked, and the lion entered the same space as the zoo workers. After being shot dead, news outlets referred to the killing as “euthanasia” (Hackney, 2018).
- The Odense Zoo in Denmark killed a healthy female lion because they “had too many female lions” (King, 2018).
- Nine lion cubs were killed by a zoo in Sweden between 2012 and 2014. The zoo continued to allow the parents to breed with the knowledge that the cubs, all reported to be in excellent health, would be killed. The zoo released a statement referring to the killing as “euthanasia” (People, 2018).
- Four lions were killed by the same Copenhagen Zoo that caused worldwide controversy for the killing of Marius the giraffe. The lions were killed to “make way” for a new male lion for breeding purposes. The Director of the zoo said, “When breeding success increases it is sometimes necessary to euthanize” (Dell’Amore, 2014).
- In 2007, a keeper at a Denver Zoo was tragically killed by a jaguar after his cage door was left open. After shooting the animal failed to kill him, staff slashed his throat when they were unable to find a vein to inject drugs to end his life. The killing of the jaguar was reported as “euthanasia” in press (Associated Press, 2007).



A photograph of two young lion cubs in a savanna setting. One cub is in the foreground, looking towards the camera, while the other is slightly behind it, looking to the side. The background is a soft-focus landscape of dry grass and trees under a warm, golden light.

# CONSERVATION IMPACTS OF CAPTIVE BREEDING

Wildlife conservation is broadly defined as the protection of the diversity of wild animals and their habitats to prevent species from going extinct. In situ (in species' natural habitat) conservation focuses on conserving organisms in their original ecosystem to maintain the potential for future propagation and evolution and can include a wide range of strategies tailored to the species' needs (Rotach, 2005). These strategies include ecosystem-based or species-centered approaches, as well as protecting land areas, restoring critical habitat, reintroducing or translocating species, and mitigating conflict with invasive species. Zoos and aquariums accredited by the AZA claim to participate in the ex situ (outside of species' natural habitat) conservation of animals by breeding "assurance populations," or captively managed populations of endangered or extinct animals that are "kept under human care until the species can safely be reintroduced to its native habitat" so that they can "reintroduce a diverse and healthy population when the time comes" (Zoo Atlanta, 2021). The problem with these "assurance populations" in captivity, however, is that vast majority of these animals are never released into the wild.

According to their website, AZA-accredited facilities have supported "conservation efforts around the globe, including contributing over \$5.2 million to big cat conservation field projects in 2019" (AZA, 2020). Although seemingly large, this number is a miniscule percentage of zoos' total annual revenue. Considering the 237 AZA-accredited institutions and 15 AZA-accredited related facilities active as of 2023 (AZA, 2023b), many with an overall operating budget considerably larger than the \$5.2 million awarded to big cat conservation projects, this amount is comparably quite negligible. As a point of reference, in 2018, AZA members collectively spent \$4.9 billion on operations and construction; comparatively, the \$5.2 million amount spent on big cat conservation in 2018 is just 0.1% of zoo operational expenses in 2019 (AZA, 2019). For example, an in-depth review of the financial records of the AZA accredited Indianapolis Zoo, which keeps big cat species including African lion, Amur tiger, and cheetah (Indianapolis Zoo, 2024), determined that conservation was not a priority based on their allocation of finances (Critser, 2024). The investigator chose the Indianapolis Zoo for this case study because, like most zoos in 2024, it "promotes itself as an organization that claims protecting nature and the environment are its foremost objectives and encourages people to donate to the zoo by connecting the work of the zoo with the work of conservation." The investigator discovered that, between 2009 and 2019, the zoo spent just an average of 1.04% of its budget on conservation. Problematically, the total amount of funds allocated to conservation work was less than the salary of the Zoo's CEO (\$370,282

in 2019). Determining how much of the funds dedicated to “conservation” proved to be difficult as well; the zoo’s financial records revealed that donations marked as “conservation” often went to other zoos or were categorized under vague umbrella terms like “monitoring,” “research,” or “support.”

The Indianapolis Zoo is not alone in this minimal allocation of funds to conservation; the most supportive zoos typically only allocate between three to five percent of their budget to conservation work (Critser, 2024). The relatively small amount dedicated to big cat conservation by the AZA to some of their most widely beloved and threatened animal species confirms that genuine conservation efforts rank far below most other zoo funding initiatives like construction and maintenance. Zoos, by default, exist to exhibit animals to the public for their entertainment. It should not be surprising that most of their budget goes to maintaining these animals on display. Further, of all the projects categorized by the AZA on their website as reintroduction and translocation research (both completed and ongoing), none focused on big cats in the wild (AZA, 2016).

According to the International Cheetah Studbook, four cheetahs were released to the wild in 2019 through the Cheetah Conservation Fund (Marker & Johnston, 2019). Further analysis of the studbook, from the first individual to the last listed (~1969-2019), revealed that 52 individuals total were released at some point during their lifetime between 1996 and 2019; 15 of whom were re-captured and died in captivity, three of whom were re-released after being re-captured, and 34 of whom remained released until death. Seventy-five percent (39 individuals) of these individuals were captured from the wild, and 25% (13 individuals) were captive-born. Three of these individuals went Lost to Follow-up (LTF) at some point; one after being recaptured and transferred, one after being released and recaptured, and one after being released, recaptured, and transferred. None of the other big cat studbooks reviewed for this report, including the tiger (Traylor-Holzer, 2013), lion (Pfaff, 2012), jaguar (Johnson, 2013), snow leopard (Tupa, 2014), and Amur leopard (Kreider, 2012) studbooks, indicated that any individuals were released to the wild at any time in their records.

One issue presented by the captive populations kept by zoos that directly conflicts with potential conservation efforts includes the issue of hand-rearing, as many zoological institutions hand-rear offspring when rearing by the mother fails. Depending on the species, hand-rearing big cat offspring has resulted in the production of fewer cubs (as demonstrated in Siberian tigers, snow leopards, and male cheetahs), later-onset reproduction (female snow leopards), shortened lifespan (female Siberian tigers), and higher infant mortality (snow leopard and male cheetahs) when compared to parent-rearing. Further, behavioral issues later in life due to a lack of appropriate socialization during critical learning years can negatively impact survival and breeding in the wild when release is the ultimate goal. Proper socialization can take up to three years in large carnivores, and failure to develop correct behavioral repertoire can result in the development of inappropriate aggression or fear of conspecifics, inability to engage in play, difficulty in reproducing, inappropriate care of offspring, and an unnatural fixation and dependence on humans, which can be particularly damaging to big cats threatened with poaching in the wild (Hampson & Scwhitzer, 2016). Within the AZA captive population, the snow leopard studbook (Tupa, 2014) states that 250 individuals (17% of the total historical population) were hand-reared, while the Amur leopard studbook (Kreider, 2012) states that five animals of breeding age were hand-reared, while acknowledging that this practice “negatively affects their breeding potential due to behavioral issues.” None of the other studbooks examined made the distinction between hand-reared or parent-reared offspring. Prior to the passage of the Big Cat Public Safety Act in the U.S. in 2023, big cats had been intentionally hand-reared by zoos to facilitate using them as photo props long-term, as hand-reared animals are often more habituated to humans than those naturally reared (D’Cruze et al., 2019).

Even in animals not hand-reared by humans, the negative effects of spending time in captivity and exposed to humans in unnatural ways often counteract efforts to maximize animal survival in the wild post-release. Animals raised in captivity often show a loss of natural behaviors associated with optimal fitness in the wild, including a decreased ability to forage/hunt, deficiencies in social interactions, issues with breeding, nesting, and locomotory skills, and lack of immunities to viruses/diseases prevalent in their wild counterparts. In a study that examined how captivity may affect the survival of reintroduced carnivores, the researchers determined that reintroduction projects using wild-caught animals were significantly more likely to succeed than projects using captive-born animals. Across 17 species, the results indicated that reintroduced captive-born carnivores were particularly susceptible to starvation, unsuccessful predator/competitor avoidance, and disease (Jule et al., 2008).

To increase the number of big cats in the wild, one of the most valuable and common strategies, as indicated by the Lion Recovery Fund (2022), is to invest in the protection of existing populations. However, in some cases, investing in the reintroduction of lions to sites from which they have disappeared can also be beneficial. According to the Lion Recovery Fund’s recommendations, the main factors to consider before conducting a reintroduction of lions include that the release site is suitable, the factors that caused the lions to disappear have been addressed, and the lions intended for reintroduction are genetically viable.

Conservation Status	
Lion ( <i>Panthera leo</i> )	Vulnerable with a Decreasing population trend
Tiger ( <i>Panthera tigris</i> )	Endangered with a Decreasing population trend
Leopard ( <i>Panthera pardus</i> )	Vulnerable with a Decreasing population trend
Snow Leopard ( <i>Panthera uncia</i> )	Vulnerable with a Decreasing population trend
Jaguar ( <i>Panthera onca</i> )	Near Threatened with a Decreasing population trend
Puma/Mountain Lion/Panther ( <i>Puma concolor</i> )	Least Concern with a Decreasing population trend
Cheetah ( <i>Acinonyx jubalus</i> )	Vulnerable with a Decreasing population trend

Source: IUCN Red List (2024): <https://www.iucnredlist.org/>

The global captive population of lions, however, presents an undeniable challenge regarding this last stipulation of maintaining an acceptable level of genetic diversity. A study published in 2022 summarizing four decades of CITES trade data on estimated totals of live individuals imported across international borders into lion range states identified 1,056 individuals with a potential risk of interbreeding with wild lions, 73% (772 individuals) of whom were captive sourced. Translocation is broadly defined as the capture and movement of individuals for management purposes. Using an independently developed scoring system to determine suitability for conservation translocations, only 7% of the translocated individuals were “first choice” and 73% were “no option” to promote genetic sustainability. These results suggest that a sizeable percentage of lions captively bred and translocated long-distance for facilities including zoos, private collections, game reserves, and hunting concessions, though often justifying these translocations as acts of “conservation,” are at risk of future interbreeding and thus cannot benefit genuine conservation efforts on a meaningful level. Further, captive populations have historically been actively inbred by zoos, having been artificially selected for certain desirable phenotypic traits and behaviors that facilitate habituation to humans and training in captivity, consequently making captive lions poor candidates for release into the wild (Bertola et al., 2022). For more information on the inbreeding of big cats in captivity, see page 19.

Reviewing multiple plans for improving the conservation status of big cats in the wild via reintroduction programs confirms that the following actions are frequently listed as integral for success: protecting habitats, providing proper land management of all protected areas, ensuring that habitat will support viable population sizes of co-predators, prey species, and conspecifics, only allowing ecologically compatible land use within the protected habitat, providing areas that link one protected area to another to allow for dispersal areas/corridors to connect fragmented populations, enhancing coordination across reserve boundaries, addressing concerns of local people/sources of human-animal conflict, and monitoring the animals post-release (NCTA, 2024; Bulatkulova, 2022; Yiyuan Qin, 2015). None of these programs cite captive breeding as a crucial action for a successful reintroduction program.

For example, the North American regional tiger studbook identifies the poaching of tigers and their prey, habitat loss, and human land use as primary threats to wild Amur tiger populations, and also acknowledges that anti-poaching, habitat protection, and other in situ conservation efforts enabled the wild population to expand from an estimated 20-30 individuals in the 1930s to 400-500 tigers in 2005 by mitigating some of these threats (Traylor-Holzer, 2013). Here, it is made clear in the AZA studbook itself that while *ex situ* captive breeding efforts coordinated by zoos involved in the SSP have resulted in zero introductions of tigers to their natural habitat and thus no positive change in their conservation status in the wild, *in situ* efforts targeted specifically to address the environmental and human-based threats that pose the highest risk to wild tigers has



accomplished significant population increases and thus improved Amur tiger conservation in the wild. If in situ conservation efforts can increase a fragile population size by more than 25% in 75 years, and zoos have made no observable positive change for the same species through the keeping and breeding of animals in captivity in the same amount of time (or longer), then we can conclude that the “conservation” efforts of zoos are ineffective and must be stopped immediately to prevent more big cats from being wrongfully taken from the wild and needlessly bred and forced to suffer in captivity.

# LOST TO FOLLOW-UP (LTF) INDIVIDUALS

Animals can be listed as “LTF” in studbooks for a variety of reasons, including individuals in private facilities being transferred to undisclosed destinations and facilities failing to contact the studbook keeper before the time of publication. As highlighted by *The Conservation Game* (2021) documentary and before the Big Cat Public Safety Act took effect in the U.S. in 2023, investigations into lions and tigers who went LTF from zoos (including the Columbus Zoo and Aquarium) revealed that big cats also went missing from studbooks after being sold into the exotic pet trade and to unaccredited facilities for exploitative purposes like cub petting and photo ops.

The International Cheetah Studbook (Marker & Johnston, 2019) is the only studbook reviewed that quantified the number of individuals notated as “LTF” and provided an explanation for these missing individuals. According to the studbook, there were 25 cheetahs in private facilities for which the final destination was not submitted to the studbook keeper, or the facility failed to contact the studbook keeper at the time of publication. In total, 65 cheetahs at 11 facilities were marked as LTF in 2019, with most of the facilities being in South Africa. It should be noted that the studbook plays no part in regulating the movement of big cats between facilities and so has no responsibility to follow up on animals who disappear from records.

Since 1990, there have been 963 cheetahs that have become LTF (about 10% of the historical population). Since publication of the 2019 studbook, 11 facilities were no longer holding cheetahs because they were marked as LTF in 2019. Since the end of 2018, there has been a decrease of 26 animals in the world’s captive cheetah population, part of which is due to 65 animals being marked as LTF in 2019.

Between 1979 and 2012, 10% of the total lion population (69 individuals) were listed as LTF (Pfaff, 2012). According to our own analysis, 63% (288 individuals) of all lions in the historical population were listed as either LTF or their life details were otherwise unspecified, meaning that life details including final location and/or year of death were missing. Further, 16% (73 individuals) of all lions in the historical population under one year of age were listed as LTF or their life details were otherwise unspecified.

Between approximately 1933 and 2013, 15% of all tigers (235 individuals) were listed as LTF (Traylor-Holzer, 2013). Our own analysis revealed that 25% of the historical population (379 individuals) were marked LTF or otherwise unspecified, and 10% (145 individuals) were marked LTF or otherwise unspecified under one year of age.

Between ~1888 and 2013, 30.5% of all jaguars (402 individuals) in the historical population went LTF.

Between ~1903-2014, 7.5% of all snow leopards (110 individuals) in the total historical population went LTF.

Between ~1963-2012, 13% of all Amur leopards (33 individuals) in the total historic population went LTF.

# LEGISLATION

Legislation impacting big cats in captivity in the United States includes the Animal Welfare Act and The Big Cat Public Safety Act (which expanded prohibitions contained in the Lacey Act). The Endangered Species Act, which implements CITES in the U.S., also has application to big cat imports and in trade but will not be explored in detail in this report.

## The Animal Welfare Act

The Animal Welfare Act is concerned with the protection – within limiting parameters – of certain animals, including big cats in captivity.

Under the Act, the USDA's Animal and Plant Health Inspection Service (APHIS) has been given a mandate to inspect and license facilities that deal in and exhibit animals regulated under the Act, pursuant to §2133. To receive a license, the facility is required to meet standards mandatorily promulgated by the Secretary of Agriculture to the specifications outlined in §2143 of the Act.

Standards promulgated must set minimum requirements, as outlined in §2143(2)(A), for *“handling, housing, feeding, watering, sanitation, ventilation, shelter from extremes of weather and temperatures, adequate veterinary care, and separation by species where the Secretary finds necessary for humane handling, care, or treatment of animals.”*

Specific regulations have been implemented for some animals held in zoos, including non-human primates and marine mammals (National Archives, n.d.). There are no specific regulations relating to big cat species.

While this may appear to create a comprehensive system by which compliance with the Animal Welfare Act can be assessed, the extent to which inspections work as a mechanism to protect welfare is questionable.

As the USDA employs a risk-based inspection system, some facilities might be inspected only once every three years or only when a complaint is received. This means that, in theory, issues could go unnoticed for many years before the zoo is required to address them. The inspection reports also only highlight where issues have been found, rather than providing an overview of the entire operation. No general information is provided regarding deaths, movement, or births of animals. No wider context, criteria for assessment, or overall feedback is provided in the report. This prevents members of the public or other interested parties from gaining a comprehensive understanding of the operation of zoos more generally.

Past analysis of licensing regimes intended to protect animal welfare has been carried out and indicated that some systems implemented by the USDA in the United States and DEFRA in the United Kingdom are lacking in scope, application, enforcement, and efficacy (Tyson, 2021).

## Big Cat Public Safety Act (BCPSA)

The BCPSA was signed into law in January 2023, after over a decade of campaigning by Born Free and other non-profit partners. Long overdue, the law amends the Lacey Act to introduce provisions relating to big cats on public safety grounds. The law's main impact is on the trade in big cats belonging to species, "lion (*Panthera leo*), tiger (*Panthera tigris*), leopard (*Panthera pardus*), snow leopard (*Uncia uncia*), jaguar (*Panthera onca*), and cougar (*Puma concolor*), or any hybrid thereof", by banning their possession in private hands. Big cats who were in private possession before the date of implementation are exempt from the prohibition, but owners must register their animals.

The clause of this act which is most relevant to zoos is to bar any individual from coming into contact with a prohibited species. This had an impact on zoos by banning the use of big cats in photo ops, cub handling opportunities, and feeding. While the act was designed to protect public safety, rather than animal welfare, there are obvious benefits to the welfare of animals formerly exploited in this way.

Unfortunately, the BCPSA allowed an exemption for "a trained professional employee or contractor of the entity or facility" (or someone being trained by that person). As you will see in the following section of this report, it has resulted in continued use of big cats in photo ops as some zoos have sought to create ways to continue unethical activities by circumventing the boundaries of what is and is not legal. This includes

having employees handle the animals but continuing to use them (including cubs) in photo ops and/or introducing inadequate barriers. While these may not necessarily be violations of the law, they do present negative ethical and welfare impacts. There have been documented instances of zoos failing to create barriers at least fifteen feet from the animals and failing to make those barriers "permanent," which are violations of the law.

Since the introduction of the BCPSA, some facilities have simply switched to, or increased promotion of, the use of other smaller – but still dangerous – species of cats such as cheetahs and servals.



**SOME ZOOS HAVE SOUGHT TO CREATE WAYS TO CONTINUE UNETHICAL ACTIVITIES BY CIRCUMVENTING THE BOUNDARIES OF WHAT IS AND IS NOT LEGAL. THIS INCLUDES HAVING EMPLOYEES HANDLE THE ANIMALS BUT CONTINUING TO USE THEM (INCLUDING CUBS) IN PHOTO OPS AND/OR INTRODUCING INADEQUATE BARRIERS.**

# EXPLOITATION OF BIG CATS

Despite the passage of the Big Cat Public Safety Act (BCPSA) in June 2023 in the U.S., which mandates that public interaction with big cats belonging to the covered species is prohibited, exploitation of big cats as part of public interaction continues. Many unaccredited facilities have exhibited instances of technical compliance with the BPSA which still nonetheless creates safety issues. Instances that have occurred since the bill's passage that continue to put big cats and humans at risk includes the usage of a transparent, flexible barrier for photo op experiences. While this may protect members of the public, it puts zoo employees in danger due to their continued physical handling of the cats. While the BCPSA allows

this, as big cats cannot be “tamed” and remain dangerous wild animals regardless of how long they have been held captive, no amount of “training” would render it safe for anyone – whether staff or the public – to interact with these animals directly. Other public safety issues include inadequate barriers separating humans from big cat enclosures and failure to comply with the 15-foot required distance from a big cat if the animal is not in their “permanent” enclosure for all Class 1 cats, including lions, tigers, leopards, snow leopards, jaguars, cougars, or any hybrid thereof (H.R. 263, 2022).



Figure 10. “Barry White” the white tiger at the Big Cat Habitat & Gulf Coast Sanctuary, Florida, 2014, © Jim Mullhaupt, Flickr Creative Commons License.

## Case Studies: “Barry White” the Tiger at Big Cat Habitat & Gulf Coast Sanctuary

Big Cat Habitat & Gulf Coast Sanctuary in Sarasota, Florida was documented exploiting an adult white tiger named “Barry White” in 2023 by confining him to a small transport cage with a glass front to provide photo op experiences for patrons. Six years prior, in 2017, a PETA eyewitness documented that “Barry White” had large calluses on his front legs (potentially from living on concrete in his home enclosure) and was sucking his own tail, a type of self-injurious behavior indicative of a high stress level, during the photo op experience (PETA, 2024). The owners of Big Cat Habitat have a history of using a wide range of animal species to exhibit abusive animal acts for profit, including training animals like chimpanzees, bears, and big cats to perform circus tricks and renting them out to be used for films or state fairs. According to PETA, in 2019, an animal trainer forced a white tiger and a liger to perform tricks, including jumping through hoops of red lights, while holding a long whip throughout the performance. In 2018, Big Cat Habitat housed 150 animals, including 50 exotic cat species (lions, tigers, leopards, cougars, servals, bobcats, a liger- the hybrid offspring of breeding a male lion to a female tiger, and a tigon- the hybrid offspring of a male tiger and a female lion). The owners of the facility had accumulated more than 50 combined pages of federal Animal Welfare Act violations since 1997, including an employee suffering injuries from a tiger attack; trainers allowing physical interactions between the animals and children during shows; a chimpanzee enclosure held together with duct tape; and failing to provide adequate shelter for animals from the elements. Since the animal cruelty allegations, the owners of the facility have attempted to improve their public image by rebranding their on-site circus show as an “educational animal demonstration,” and claiming that their performing animals are “rescues,” despite maintaining public opposition of animal protection legislation including the BCPSA and the Captive Primate Safety Act and disseminating misinformation by stating that cub petting and private breeding help conservation efforts in the wild (911 Animal Abuse, 2019).



Figure 11. A couple posing for a photo op with white tiger “Barry White” at Big Cat Habitat & Gulf Coast Sanctuary, Florida, in 2023. Of note, there is no additional barrier placed between the public and the enclosure containing “Barry White”.

## Myrtle Beach Safari

Myrtle Beach Safari in South Carolina is another facility that regularly exploits big cats following the passage of the BCPA, primarily through offering cub petting experiences using a malleable, clear barrier. Posted as recently as February 2024, videos on the Myrtle Beach Safari’s Instagram account confirm that photo op experiences involving cubs tiger, white tiger, lion, and hybrid cubs still occur. In many of these images, an animal handler holds the cub as the patron presses their hands and/or face against the malleable barrier to get as close as possible to the cub. The safari owner, Bhagavan “Doc” Antle (known for his appearance in the 2020 Netflix series *Tiger King*), pleaded guilty to federal wildlife trafficking charges and money laundering in 2023. Antle conspired to violate the Lacey Act by directing the sale or purchase of species protected under the federal Endangered Species Act, including two cheetah cubs, two lion cubs, two tigers, and one juvenile chimpanzee. In addition to attempting to hide the transactions and falsifying paperwork to show non-commercial transfers within one state, Antle also requested that payments for endangered species be made to his nonprofit so they could appear as charitable donations (U.S. D.O.J., 2023). Therefore, despite claiming to benefit animal conservation through the operation of the safari, Antle repeatedly and intentionally violated laws intended to protect these fragile species with the intention of increasing personal gain. For each



Figure 12. A photo (taken via screenshot from Myrtle Beach Safari’s Instagram account) showing a visitor engaging in a photo op experience with a tiger cub at Myrtle Beach Safari in South Carolina in 2024. The staff member holds the cub on the opposite side of the clear barrier, demonstrating a potentially unsafe and behaviorally damaging interaction with the cub.

count, Antle faces a maximum penalty of five years in prison, a fine of up to \$250,000, and three years of supervised release. While he awaits the judge's ruling, he remains active in his role at the safari.



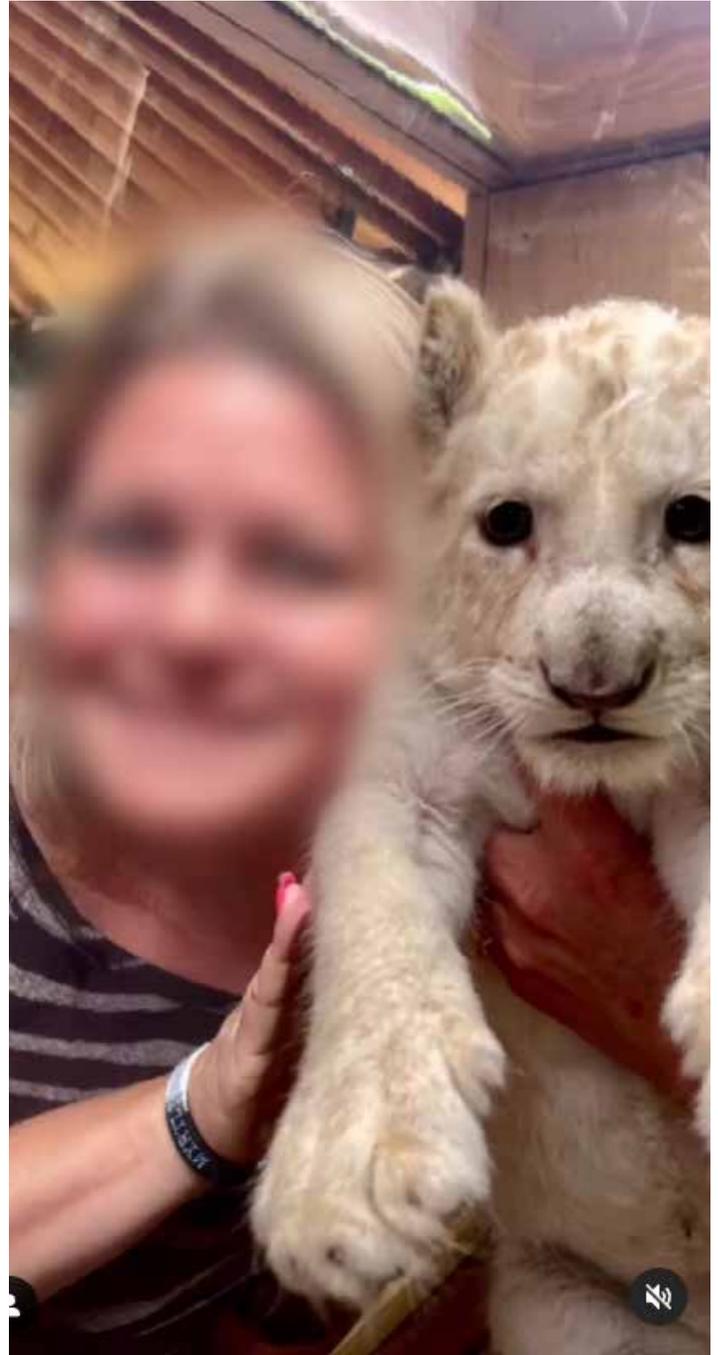
**Figure 13.** A photo (taken via screenshot from Myrtle Beach Safari's Instagram account) showing a visitor engaging in a photo op experience with a white tiger cub at Myrtle Beach Safari in South Carolina in 2023. The staff member holds the cub on the opposite side of the clear barrier, demonstrating a potentially unsafe and behaviorally damaging interaction with the cub.



**Figure 14.** A photo (taken via screenshot from Myrtle Beach Safari's Instagram account) showing a visitor engaging in a photo op experience with an adult lion at Myrtle Beach Safari in South Carolina in 2023. The visitor sits directly in front of the lion, who is not contained in an enclosure, demonstrating a potentially unsafe interaction and inappropriate barrier between the big cat and the visitor.



**Figure 15.** A photo (taken via screenshot from Myrtle Beach Safari's Instagram account) showing a visitor engaging in a feeding experience with an adult lion at Myrtle Beach Safari in South Carolina in 2023. The visitor holds a feeding pole with meat on the end in front of the lion in an open contact setting, demonstrating a potentially unsafe interaction and inappropriate barrier between the big cat and the visitor.



**Figure 16.** A photo (taken via screenshot from Myrtle Beach Safari's Instagram account) showing a visitor engaging in a photo op experience with a lion cub at Myrtle Beach Safari in South Carolina in 2023. The staff member holds the cub on the opposite side of the clear barrier, demonstrating a potentially unsafe and behaviorally damaging interaction with the cub.

## Exploitation of Smaller Cats Continues with Their Use as “Ambassador Animals”

Because the BCPSA does not prohibit public interactions with smaller cat species, including cheetahs, clouded leopards, and servals, widespread exploitation of these animals as “ambassador animals” persists across the country, in both AZA and non-AZA accredited facilities. Zoos often use prong collars to control cheetahs during interaction experiences, despite prong collars not being recommended by the U.K.’s Royal Society for the Prevention of Cruelty to Animals (RSPCA) and denounced by many dog training organizations around the world due to animal welfare and physical injury concerns (RSPCA, 2023).

The common use of cheetahs and other smaller cat species in interactive experiences, however, does not mean they are not dangerous to the public. For example, in 2021 at the Columbus Zoo in Ohio, a zookeeper was injured by a cheetah attack so badly that they had to go to the hospital. The attack occurred in a nonpublic area of the zoo while two staff members were walking Isabelle, a 4-year-old cheetah, in a harness for her daily exercise. A keeper from a different exhibit approached, and as Isabelle calmly sat purring, her handlers invited the keeper to come closer. When the keeper got closer, Isabelle suddenly crouched down and lunged. Zoo officials did not identify the zookeeper or the extent of their injuries, citing privacy laws. According to the zoo’s vice president of animal programs, Isabelle is “an incredibly well-trained animal” who



Figure 17. A photo (taken via screenshot from an elementary school’s social media page) demonstrating a traveling animal encounter experience offered by Kowiachobee Animal Preserve in Naples, Florida in 2023, featuring an adult tiger in a transfer cage, inappropriate barrier, and potentially unsafe distance between the big cat and spectators.

had been trained to cooperate with ultrasounds, X-rays, blood draws, and other medical procedures to minimize the use of anesthesia. This was Isabelle's first documented attack. Isabelle was placed in a 30-day quarantine to ensure that she did not show signs of illness, as required by the County Health District (The Columbus Dispatch, 2021).

Interactive experiences, like those with "ambassador animals," often involve animals engaging in unnatural behaviors, including eating from people's hands, being held or touched, and typically include a photography opportunity. Photos taken of the encounter are often shared on social media platforms after the experience. Despite zoos claiming that these interactive experiences are "educational," research confirms that viewing

humans near wild animals results in misinformed and often dangerous perceptions. For example, in a study (Shaw et al., 2022) that examined the effects that viewing images featuring a close encounter with wild animals had on public perceptions of the animals they observed, they concluded that the closer the proximity of a human to an animal in an image, the more likely respondents were to think that the animal was not displaying a natural behavior and that the animal would make a good pet. More specifically, they discovered that 28% of respondents agreed with the statement "the animal would make a good pet." Thus, and perhaps not surprisingly, viewing wild animals in unnatural environments and in unsafe proximity to humans results in the incorrect perception that they thrive in such environments, and contributes to increasing the demand for exotic pets and other interactive experiences that harm animal welfare.



Figure 18. A photo (taken via screenshot from a cafe's social media page) demonstrating a traveling animal encounter experience offered by Kowiachobee Animal Preserve in Naples, Florida in 2023, featuring an adult tiger in a transfer cage, inappropriate barrier, and potentially unsafe distance between the big cat and spectators.



**Figure 19.** A photo (taken via screenshot from a spectator’s personal Facebook account) depicting a woman holding a young child while feeding an adult white tiger with a long pole at the “Tiger Encounter” event with animal trainer Felicia Frisco at the 2023 Carver County fair in Minnesota. This photo demonstrates an inappropriate barrier and potentially unsafe distance between the big cat and spectators.



**Figure 20.** A photo (taken via screenshot from the venue’s Facebook account) showing an adult tiger from the company Exotic Animals Miami in a transport cage at a child’s bar mitzvah party in Florida in 2023. This photo demonstrates an inappropriate barrier and potentially unsafe distance between the big cat and spectators.



**CONCLUSION:**

## **BIG CATS DO NOT BELONG IN CAPTIVITY**

The information in this report demonstrates that big cats suffer in zoos and their keeping serves no conservation purposes. Evidence of stereotypic behavior – a sign of significant mental distress – is rife. Importantly, inbreeding, hybridization, and genetic bottlenecks have been both confirmed by science and known by the zoo industry for decades, yet zoos continue to breed animals for display knowing that they serve no purpose as an “assurance population.” Like other animals in zoos, big cats are not released into the wild; they are simply forced to breed, generation after generation, for paying visitors to observe in captivity and for zoos to profit from them. Since the introduction of the Big Cat Public Safety Act, zoos have been forced to end unethical and dangerous big cat handling activities, but as we have seen, some facilities have found novel ways to continue to offer photo opportunities with big cats, including cubs. While minor steps forward have been made in the phasing out of white color morphs from zoos, this is simply a first step in realizing that the same action is required for all big cats.

Big cats in zoos experience a poor quality of life; a captive environment cannot meet their fundamental needs. In addition, there is no conservation benefit to holding these majestic animals captive. We call upon the zoo community to bring an end to captive big cat suffering and take steps to phase them out of zoo collections. We also call upon the public to stop supporting the zoo industry by not going to these venues to decrease the demand that fuels the desire to hold these awe-inspiring animals captive.

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