

Opinion

The Case Against Zoos

By Emma Marris

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After being captives of the pandemic for more than a year, we have begun experiencing the pleasures of simple outings: dining al fresco, shopping with a friend, taking a stroll through the zoo. As we snap a selfie by the sea lions for the first time in so long, it seems worth asking, after our collective ordeal, whether our pleasure in seeing wild animals up close is worth the price of their captivity.

Throughout history, men have accumulated large and fierce animals to advertise their might and prestige. Power-mad men from Henry III to Saddam Hussein’s son Uday to the drug kingpin Pablo Escobar to Charlemagne all tried to underscore their strength by keeping terrifying beasts captive. William Randolph Hearst created his own private zoo with lions, tigers, leopards and more at Hearst Castle. It is these boastful collections of animals, these autocratic menageries, from which the modern zoo, with its didactic plaques and \$15 hot dogs, springs.

The forerunners of the modern zoo, open to the public and grounded in science, took shape in the 19th century. Public zoos sprang up across Europe, many modeled on the London Zoo in Regent’s Park. Ostensibly places for genteel amusement and edification, zoos expanded beyond big and fearsome animals to include reptile houses, aviaries and insectariums. Living collections were often presented in taxonomic order, with various species of the same family grouped together, for comparative study.

The first zoos housed animals behind metal bars in spartan cages. But relatively early in their evolution, a German exotic animal importer named Carl Hagenbeck changed the way wild animals were exhibited. In his Animal Park, which opened in 1907 in Hamburg, he designed cages that didn’t look like cages, using moats and artfully arranged rock walls to invisibly pen animals. By designing these enclosures so that many animals could be seen at once, without any bars or walls in the visitors’ lines of sight, he created an immersive panorama, in which the fact of captivity was supplanted by the illusion of being in nature.

Mr. Hagenbeck’s model was widely influential. Increasingly, animals were presented with the distasteful fact of their imprisonment visually elided. Zoos shifted just slightly from overt demonstrations of mastery over beasts to a narrative of benevolent protection of individual animals. From there, it was an easy leap to protecting animal species.

The “educational day out” model of zoos endured until the late 20th century, when zoos began actively rebranding themselves as serious contributors to conservation. Zoo animals, this new narrative went, function as backup populations for wild animals under threat, as well as “ambassadors” for their species, teaching humans and motivating them to care about wildlife. This conservation focus “must be a key component” for institutions that want to be accredited by the Association of Zoos and Aquariums, a nonprofit organization that sets standards and policies for facilities in the United States and 12 other countries.

This is the image of the zoo I grew up with: the unambiguously good civic institution that lovingly cared for animals both on its grounds and, somehow, vaguely, in their wild habitats. A few zoos are famous for their conservation work. Four of the zoos and the aquarium in New York City, for instance, are managed by the Wildlife Conservation Society, which is involved in conservation efforts around the world. But this is not the norm.

While researching my book on the ethics of human interactions with wild species, “Wild Souls,” I examined how, exactly, zoos contribute to the conservation of wild animals.

A.Z.A. facilities report spending approximately \$231 million annually on conservation projects. For comparison, in 2018, they spent \$4.9 billion on operations and construction. I find one statistic particularly telling about their priorities: A 2018 analysis of the scientific papers produced by association members between 1993 and 2013 showed that just about 7 percent of them annually were classified as being about “biodiversity conservation.”

Zoos accredited by the A.Z.A. or the European Association of Zoos and Aquaria have studbooks and genetic pedigrees and carefully breed their animals as if they might be called upon at any moment to release them, like Noah throwing open the doors to the ark, into a waiting wild habitat. But that day of release never quite seems to come.

There are a few exceptions. The Arabian oryx, an antelope native to the Arabian Peninsula, went extinct in the wild in the 1970s and then was reintroduced into the wild from zoo populations. The California condor breeding program, which almost certainly saved the species from extinction, includes five zoos as active partners. Black-footed ferrets and red wolves in the United States and golden lion tamarins in Brazil — all endangered, as well — have been bred at zoos for reintroduction into the wild. An estimated 20 red wolves are all that remain in the wild.

The A.Z.A. says that its members host “more than 50 reintroduction programs for species listed as threatened or endangered under the Endangered Species Act.” Nevertheless, a vast majority of zoo animals (there are 800,000 animals of 6,000 species in the A.Z.A.’s zoos alone) will spend their whole lives in captivity, either dying of old age after a lifetime of display or by being culled as “surplus.”

The practice of killing “surplus” animals is kept quiet by zoos, but it happens, especially in Europe. In 2014, the director of the E.A.Z.A. at the time estimated that between 3,000 and 5,000 animals are euthanized in European zoos each year. (The culling of mammals specifically in E.A.Z.A. zoos is “usually not more than 200 animals per year,”

the organization said.) Early in the pandemic, the Neumünster Zoo in northern Germany coolly announced an emergency plan to cope with lost revenue by feeding some animals to other animals, compressing the food chain at the zoo like an accordion, until in the worst-case scenario, only Vitus, a polar bear, would be left standing. The A.Z.A.'s policies allow for the euthanasia of animals, but the president of the association, Dan Ashe, told me, "it's very rarely employed" by his member institutions.

Mr. Ashe, a former director of the U.S. Fish and Wildlife Service, suggested that learning how to breed animals contributes to conservation in the long term, even if very few animals are being released now. A day may come, he said, when we need to breed elephants or tigers or polar bears in captivity to save them from extinction. "If you don't have people that know how to care for them, know how to breed them successfully, know how to keep them in environments where their social and psychological needs can be met, then you won't be able to do that," he said.

The other argument zoos commonly make is that they educate the public about animals and develop in people a conservation ethic. Having seen a majestic leopard in the zoo, the visitor becomes more willing to pay for its conservation or vote for policies that will preserve it in the wild. What Mr. Ashe wants visitors to experience when they look at the animals is a "sense of empathy for the individual animal, as well as the wild populations of that animal."

I do not doubt that some people had their passion for a particular species, or wildlife in general, sparked by zoo experiences. I've heard and read some of their stories. I once overheard two schoolchildren at the Smithsonian's National Zoo in Washington confess to each other that they had assumed that elephants were mythical animals like unicorns before seeing them in the flesh. I remember well the awe and joy on their faces, 15 years later. I'd like to think these kids, now in their early 20s, are working for a conservation organization somewhere. But there's no unambiguous evidence that zoos are making visitors care more about conservation or take any action to support it. After all, more than 700 million people visit zoos and aquariums worldwide every year, and biodiversity is still in decline.

In a 2011 study, researchers quizzed visitors at the Cleveland, Bronx, Prospect Park and Central Park zoos about their level of environmental concern and what they thought about the animals. Those who reported "a sense of connection to the animals at the zoo" also correlated positively with general environmental concern. On the other hand, the researchers reported, "there were no significant differences in survey responses before entering an exhibit compared with those obtained as visitors were exiting."

A 2008 study of 206 zoo visitors by some members of the same team showed that while 42 percent said that the "main purpose" of the zoo was "to teach visitors about animals and conservation," 66 percent said that their primary reason for going was "to have an outing with friends or family," and just 12 percent said their intention was "to learn about animals."

The researchers also spied on hundreds of visitors' conversations at the Bronx Zoo, the Brookfield Zoo outside Chicago and the Cleveland Metroparks Zoo. They found that only 27 percent of people bothered to read the signs at exhibits. More than 6,000 comments made by the visitors were recorded, nearly half of which were "purely descriptive statements that asserted a fact about the exhibit or the animal." The researchers wrote, "In all the statements collected, no one volunteered information that would lead us to believe that they had an intention to advocate for protection of the animal or an intention to change their own behavior."

People don't go to zoos to learn about the biodiversity crisis or how they can help. They go to get out of the house, to get their children some fresh air, to see interesting animals. They go for the same reason people went to zoos in the 19th century: to be entertained.

A fine day out with the family might itself be justification enough for the existence of zoos if the zoo animals are all happy to be there. Alas, there's plenty of heartbreaking evidence that many are not.

In many modern zoos, animals are well cared for, healthy and probably, for many species, content. Zookeepers are not mustache-twirling villains. They are kind people, bonded to their charges and immersed in the culture of the zoo, in which they are the good guys.

But many animals clearly show us that they do not enjoy captivity. When confined they rock, pull their hair and engage in other tics. Captive tigers pace back and forth, and in a 2014 study, researchers found that "the time devoted to pacing by a species in captivity is best predicted by the daily distances traveled in nature by the wild specimens." It is almost as if they feel driven to patrol their territory, to hunt, to move, to walk a certain number of steps, as if they have a Fitbit in their brains.

The researchers divided the odd behaviors of captive animals into two categories: "impulsive/compulsive behaviors," including coprophagy (eating feces), regurgitation, self-biting and mutilation, exaggerated aggressiveness and infanticide, and "stereotypies," which are endlessly repeated movements. Elephants bob their heads over and over. Chimps pull out their own hair. Giraffes endlessly flick their tongues. Bears and cats pace. Some studies have shown that as many as 80 percent of zoo carnivores, 64 percent of zoo chimps and 85 percent of zoo elephants have displayed compulsive behaviors or stereotypies.

Elephants are particularly unhappy in zoos, given their great size, social nature and cognitive complexity. Many suffer from arthritis and other joint problems from standing on hard surfaces; elephants kept alone become desperately lonely; and all zoo elephants suffer mentally from being cooped up in tiny yards while their free-ranging cousins walk up to 50 miles a day. Zoo elephants tend to die young. At least 20 zoos in the United States have already ended their elephant exhibits in part because of ethical concerns about keeping the species captive.

Many zoos use Prozac and other psychoactive drugs on at least some of their animals to deal with the mental effects of captivity. The Los Angeles Zoo has used Celexa, an antidepressant, to control aggression in one of its chimps. Gus, a polar bear at the Central Park Zoo, was given Prozac as part of an attempt to stop him from swimming

endless figure-eight laps in his tiny pool. The Toledo Zoo has dosed zebras and wildebeest with the antipsychotic haloperidol to keep them calm and has put an orangutan on Prozac. When a female gorilla named Johari kept fighting off the male she was placed with, the zoo dosed her with Prozac until she allowed him to mate with her. A 2000 survey of U.S. and Canadian zoos found that nearly half of respondents were giving their gorillas Haldol, Valium or another psychopharmaceutical drug.

Some zoo animals try to escape. Jason Hribal's 2010 book, "Fear of the Animal Planet," chronicles dozens of attempts. Elephants figure prominently in his book, in part because they are so big that when they escape it generally makes the news.

Mr. Hribal documented many stories of elephants making a run for it — in one case repairing to a nearby woods with a pond for a mud bath. He also found many examples of zoo elephants hurting or killing their keepers and evidence that zoos routinely downplayed or even lied about those incidents.

Elephants aren't the only species that try to flee a zoo life. Tatiana the tiger, kept in the San Francisco Zoo, snapped one day in 2007 after three teenage boys had been taunting her. She somehow got over the 12-foot wall surrounding her 1,000-square-foot enclosure and attacked one of the teenagers, killing him. The others ran, and she pursued them, ignoring all other humans in her path. When she caught up with the boys at the cafe, she mauled them before she was shot to death by the police. Investigators found sticks and pine cones inside the exhibit, most likely thrown by the boys.

Apes are excellent at escaping. Little Joe, a gorilla, escaped from the Franklin Park Zoo in Boston twice in 2003. At the Los Angeles Zoo, a gorilla named Evelyn escaped seven times in 20 years. Apes are known for picking locks and keeping a beady eye on their captors, waiting for the day someone forgets to lock the door. An orangutan at the Omaha Zoo kept wire for lock-picking hidden in his mouth. A gorilla named Togo at the Toledo Zoo used his incredible strength to bend the bars of his cage. When the zoo replaced the bars with thick glass, he started methodically removing the putty holding it in. In the 1980s, a group of orangutans escaped several times at the San Diego Zoo. In one escape, they worked together: One held a mop handle steady while her sister climbed it to freedom. Another time, one of the orangutans, Kumang, learned how to use sticks to ground the current in the electrical wire around her enclosure. She could then climb the wire without being shocked. It is impossible to read these stories without concluding that these animals *wanted out*.

"I don't see any problem with holding animals for display," Mr. Ashe told me. "People assume that because an animal can move great distances that they would choose to do that." If they have everything they need nearby, he argued, they would be happy with smaller territories. And it is true that the territory size of an animal like a wolf depends greatly on the density of resources and other wolves. But then there's the pacing, the rocking. I pointed out that we can't ask animals whether they are happy with their enclosure size. "That's true," he said. "There is always that element of choice that gets removed from them in a captive environment. That's undeniable." His justification was philosophical. In the end, he said, "we live with our own constraints." He added, "We are all captive in some regards to social and ethical and religious and other constraints on our life and our activities."

What if zoos stopped breeding all their animals, with the possible exception of any endangered species with a *real* chance of being released back into the wild? What if they sent all the animals that need really large areas or lots of freedom and socialization to refuges? With their apes, elephants, big cats, and other large and smart species gone, they could expand enclosures for the rest of the animals, concentrating on keeping them lavishly happy until their natural deaths. Eventually, the only animals on display would be a few ancient holdovers from the old menageries, animals in active conservation breeding programs and perhaps a few rescues.

Such zoos might even be merged with sanctuaries, places that take wild animals that because of injury or a lifetime of captivity cannot live in the wild. Existing refuges often do allow visitors, but their facilities are really arranged for the animals, not for the people. These refuge-zoos could become places where animals *live*. Display would be incidental.

Such a transformation might free up some space. What could these zoos do with it, besides enlarging enclosures? As an avid fan of botanical gardens, I humbly suggest that as the captive animals retire and die off without being replaced, these biodiversity-worshipping institutions devote more and more space to the wonderful world of plants. Properly curated and interpreted, a well-run garden can be a site for a rewarding “outing with friends or family,” a source of education for the 27 percent of people who read signs and a point of civic pride.

I’ve spent many memorable days in botanical gardens, completely swept away by the beauty of the design as well as the unending wonder of evolution — and there’s no uneasiness or guilt. When there’s a surplus, you can just have a plant sale.

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