Why Humans Should Not Choose Mates for Wild Animals

Critical Problems in Captivity

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About us:

Elsa Foundation is a non-profit charitable trust that focuses on the conservation of biodiversity, prevention of cruelty to animals and animal rights issues of both domestic and wild animals. It opposes keeping wild animals in captivity.

We have been to several countries to study best practices and implement them in India.

The foundation supports various government bodies, in informed policy-making and decision-making on critical issues impacting biodiversity and the rights of animals.

Our work areas are research, advocacy, awareness, publication, support in policy and decision making.

Website: www.elsafoundationcharity.org

There is not a single aspect that is beneficial for an elephant when it is forcefully kept in captivity

Elephants are keystone species that are directly responsible for survival of many other species (plants and animals) in the forest

Capturing wild elephants and forcing them to live in captivity not only destroys the elephant species but also a huge threat to biodiversity

Contents

Introduction:

Just because two wild animals (one male and one female) are kept in a cage / enclosure at a zoo, it does not mean one animal will choose another animal as its partner. Forcing two incompatible animals to live in a cage / enclosure is highly unethical and is a disaster for both the animals in captivity. The reasons for this are explained in this document.

Zoos across the world do the above-mentioned blunder.

The aspects of innate and learned behaviour are discussed with examples in this document.

As a special case, several research findings on the innate behaviour of elephants in their partner selection process and learned behaviour in leading their life successfully are presented here.

Foundation's book on captive elephants

While this document focuses on the behavioural aspect of the elephants, the foundation's book on the life of captive elephants covers a wide spectrum of topics.

The book includes topics on cruelty to elephants, physiological and psychological problems faced by captive elephants etc.

Even though the title of the book says, it is about the temple and private elephants, about 90% of the facts discussed in the book apply to zoo elephants also.

To get a PDF copy of the book, please send an email to us.

elsa foundation

Living Conditions of
Temple, Private Elephants.
Solution to the problems

Section 1: Innate and Learned Behaviours

Innate behaviour in animals:

Innate behaviour is exhibited by an animal by birth, as it is passed on to it, through its DNA.

Spider building a web, weaver bird constructing a mind-blowing nest, monkeys being arboreal (i.e., able to live on trees), a calf suckling from its mother etc. are innate behaviours

The following are characteristics of innate behaviour

- It is Heritable (passed via DNA)
- It is Intrinsic (without anyone teaching, the animal will exhibit this)
- It is Repetitive (the same pattern exhibited every time)
- It is Inflexible (it never changes even because of experience)
- It is Consummate (it is fully developed (or) expressed at the first performance)

Even if an animal is kept at a zoo, in isolation, from birth, it will still try to exhibit this innate behaviour

Zoos DO NOT provide even the very basic atmosphere for any animal to exhibit this innate behaviour

The psychological impact of obstructing the innate behaviours in captivity

Forcing an animal to live in an abnormal, abusive condition will obstruct the animal from exhibiting its innate behaviours

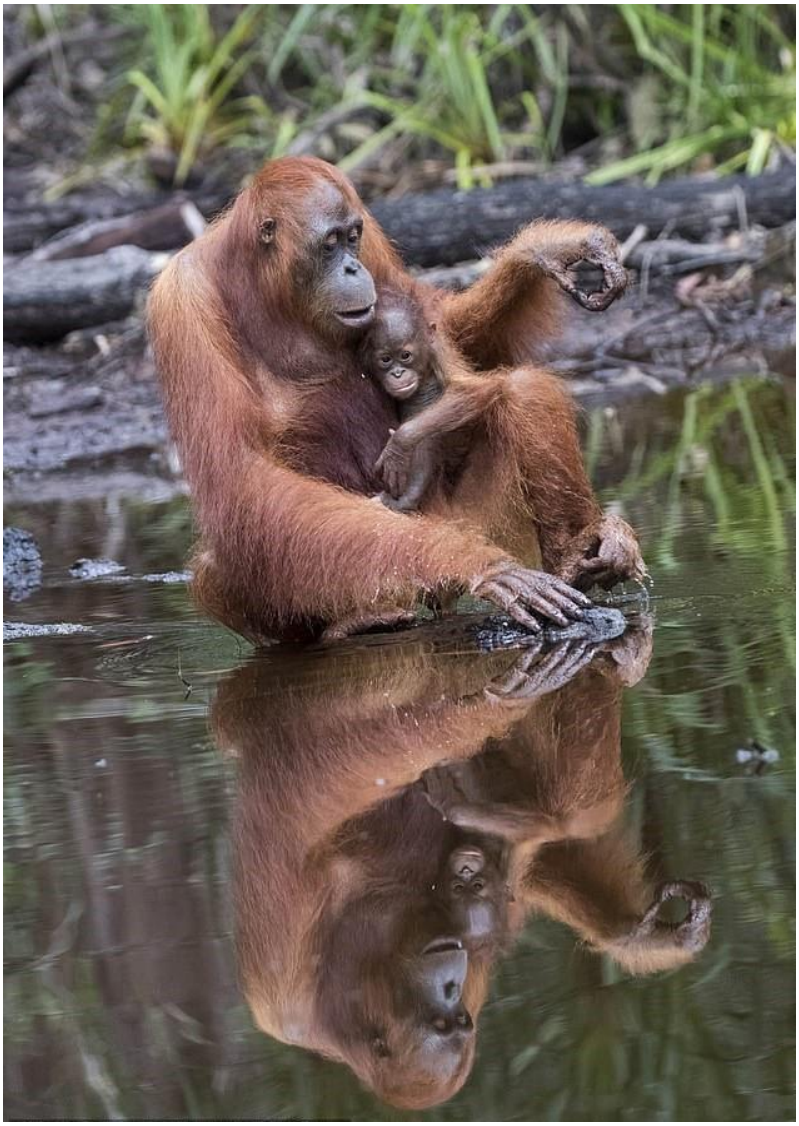
This leads to serious physiological stress and the animal becoming insane.

Insanity in zoo animals can be noticed by these actions

- Non-stop head bobbing and swaying of the body by chained captive elephants (stereotypic behaviour)
- An animal running in a non-stop circular motion inside the enclosure / cage
- Self-mutilation (few examples)
    - Apes and monkeys plucking their body hair and eating it
    - Animals biting their limbs
    - Birds plucking their feathers

Due to physiological and psychological trauma caused by captivity, this grey parrot had plucked its feathers

What is learned behaviour?



Similar to innate behaviour, learned behaviour is also extremely important for a wild animal. These are skills they learn from their family seniors when they grow up. Survival becomes very complicated without these skills

Examples:

- Monkeys and apes teach their young ones about snakes and the dangers associated with them.
- Senior elephants teach the calves, the long route to reach the waterholes, during summer. Teach migratory routes to reach the other forests, during the dry season in their current habitat etc.
- Elephant calf learning to drink water using its trunk, from other senior members of the family.

What is Ethology?

The study of wild animals' behaviour in their natural habitat is called Ethology. Ethology is a combination of innate and learned behaviours

Section 2: Elephants' Partner Selection

Note: In African elephant species, female elephants also have tusks

Elephants' innate behaviour and biological parameters in partner selection

Elephants (both male and female) exhibit innate behaviour in their partner selection and have a high influence of biological parameters in their selection. This section tries to highlight some of them.

Age:

Female elephants have a preference to choose male elephants of older age as their partner

Females prefer elderly males (above 35 years) that are healthy, strong and large as partners. *(Joyce Poole, May 1989 & H.B. Rasmussen, et.al, 2007)*

Even though males can begin mating around age 15, they don't fall into a regular musth rhythm until they're about 35.

It's well known that bull elephants become more successful in the mating game as they age. (*Grant Currin, 2019 & H.B. Rasmussen, et.al, 2007)*

Musth in the majority of younger bulls (less than 35) was only up to 25 days/year, but for older males above 35 years it went up to 115 days and the average was about 75 days/year *(Poole; 1989)*

Size:

The large body, height, weight, age of the tusker, robust looks and musth duration are what matters for females. *(Sukumar et.al., March 2015)*

Just as dominance rank in non-musth bulls is decided by body size, the larger bulls also won most of the agonistic interactions of a pair of musth bulls.

Infrasound communication

The female in the oestrous cycle and male in musth communicate their status to the opposite gender, even several kilometres away, by infrasound communication (frequencies less than 20 Hz) a.k.a. rumbles. This sound cannot be heard by humans.

Due to its large wavelength, infrasound crosses the lower portion of the trees without any obstructions.

Playbacks of female elephant reproductive calls, (i.e., oestrous rumbles) can change the movement trajectory and behaviour of male elephants *(Caitlin E. O'Connell-Rodwell, 2022)*

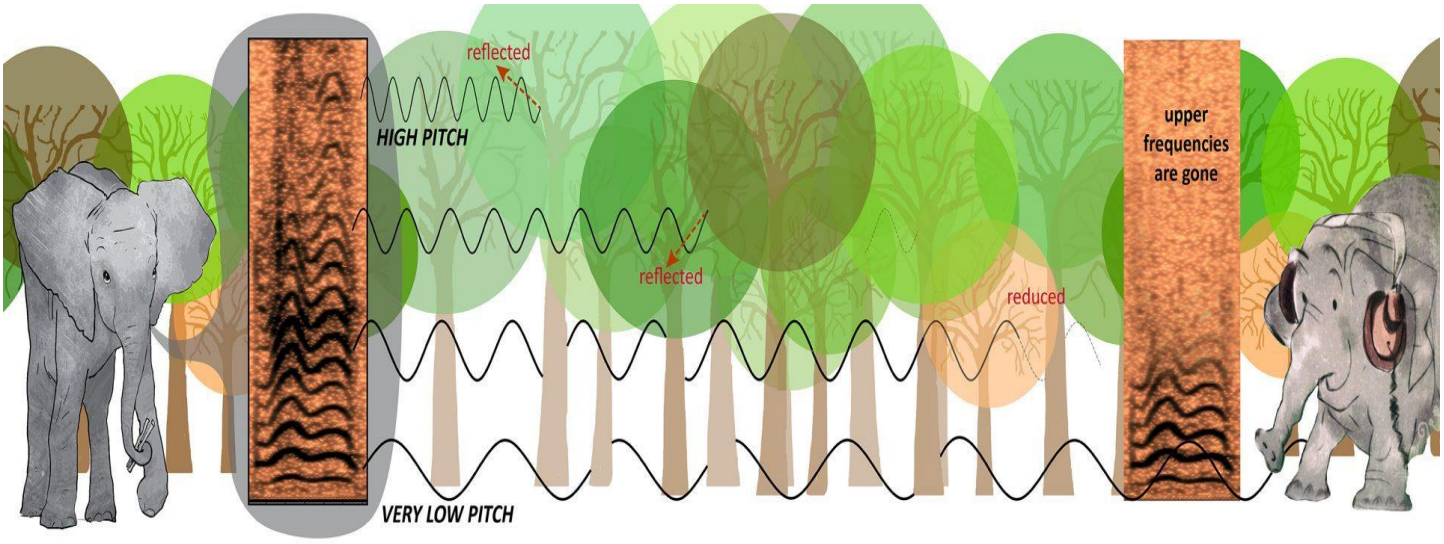


Image: Elephant listening project

Male African elephants discriminate and prefer vocalizations of unfamiliar females to avoid inbreeding and to find a suitable partner *(Angela et.al. 2017)*

Musth:

Musth is a seasonal physiological condition in a healthy male elephant, which indicates that it is ready for breeding. Musth lasts for a few months every year. Indications of musth are oozing fluids on the temporal glands, regular dribbling of urine, increased level of testosterone and aggressiveness. Males in musth are so attractive to females that almost 80 % of calves in the same population are sired by them, according to a 2007 study. *(H.B. Rasmussen, et.al, 2007)*

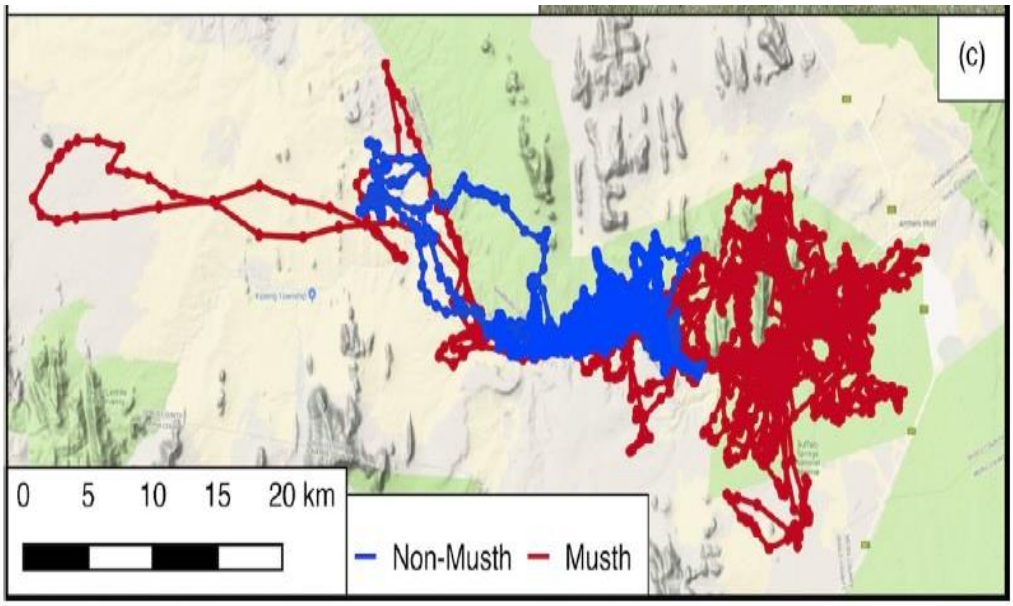
Older bulls conserve their energy, to use during musth. During musth, they walked faster than their younger competitors. These 50-somethings (age) also patrolled territories 350 percent larger. *(Grant Currin, 2019)*

Secretion from the temporal glands indicating that the bull is in musth

Our results demonstrate that mature males increase their daily mean speed and range size when in musth (reproductively active state) to find a suitable partner. *(Lucy A. Taylor et.al.; 2019)*

Blue is movement in the non-musth period

Red is movement in the musth period



Male to male combat for proving the strength and passing a healthy gene pool:

Male-to-male combat is there to prove which is the strongest bull. The strongest bull establishes mating rights *(Joyce Poole 1989).* Females' preference for such strong bulls is to pass on a healthy gene pool to the next generation.

What happens if humans select a partner for an elephant

The above facts indicate that there are so many parameters that are innate and also multiple biological aspects that influence the partner choice of an elephant. If humans randomly bring two elephants and try to make them partners, it may not be successful. If non-compatible elephants are kept together, then it will be highly stressful for the elephants and it will be a disaster. This is a huge blunder committed all over the world, at zoos.

Mismatch of the breeding cycle at the zoo:

Mismatch of the oestrous cycle (approx. 16 weeks) of the female and musth cycle of the bull may occur if there are just two elephants at the zoo. This leads to high-stress levels for the elephants.

Inbreeding at zoos

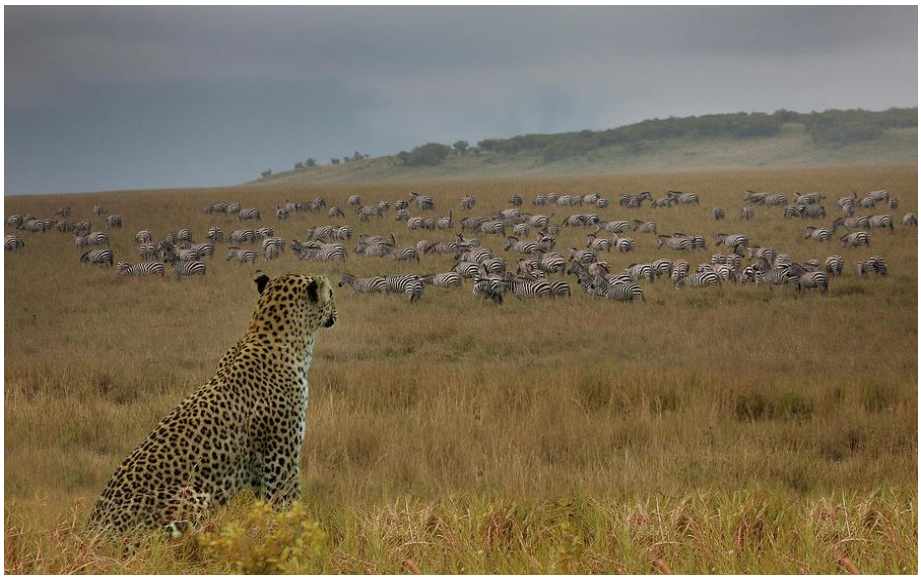
Zoos trap animals inside a cage/enclosure which leads to a situation of inbreeding within the same group. This leads to abnormalities in the body, early fatality, inbreeding depression among offspring of zoo animals

"Inbreeding depression" is the reduced "biological fitness" which is the result of inbreeding. Biological fitness refers to an organism's ability to survive and perpetuate its genetic material.

Inbred offspring have lower survival or fertility and consequently lower fitness *(Pusey & Wolf 1996; Crnokrak & Roff 1999; Keller & Waller 2002; Edmands 2006).*

Wild animals avoid inbreeding and have evolved a natural mechanism for this. Our data indicate that males avoided inbreeding in spite of the fact that they may miss mating opportunities*. (Archie et.al. 2007)*

Section 3: Elephants' Role in Biodiversity and Ecology



What is Biodiversity?

The presence of multiple species of plants and animals in a habitat that is perfectly suitable for them. The habitat (mountains, forests, lakes, rivers etc.) that provides plenty of food and water for their living - all these components as a whole is called biodiversity. It has three components 1. Ecosystem diversity. 2. Species diversity 3. Genetic diversity.

What is Ecology?

Ecology is a science that studies how plants, animals and their environment (collectively called an Ecosystem) are interdependent for their survival. Their interactions and their relationships.

Ex.: The elephants' dung is carried by dung beetles and stored underground in small holes. For dung beetles, dung is the food. After consuming a portion of food, the leftover dung becomes natural manure for the forest plants and grass. This dung nurtures the plants and grass growth in the forest. These plants and grass are in turn consumed by deer, buffalo, zebra and other herbivorous animals.

Elephants' role in biodiversity and ecology

Footprints serve as frog nurseries

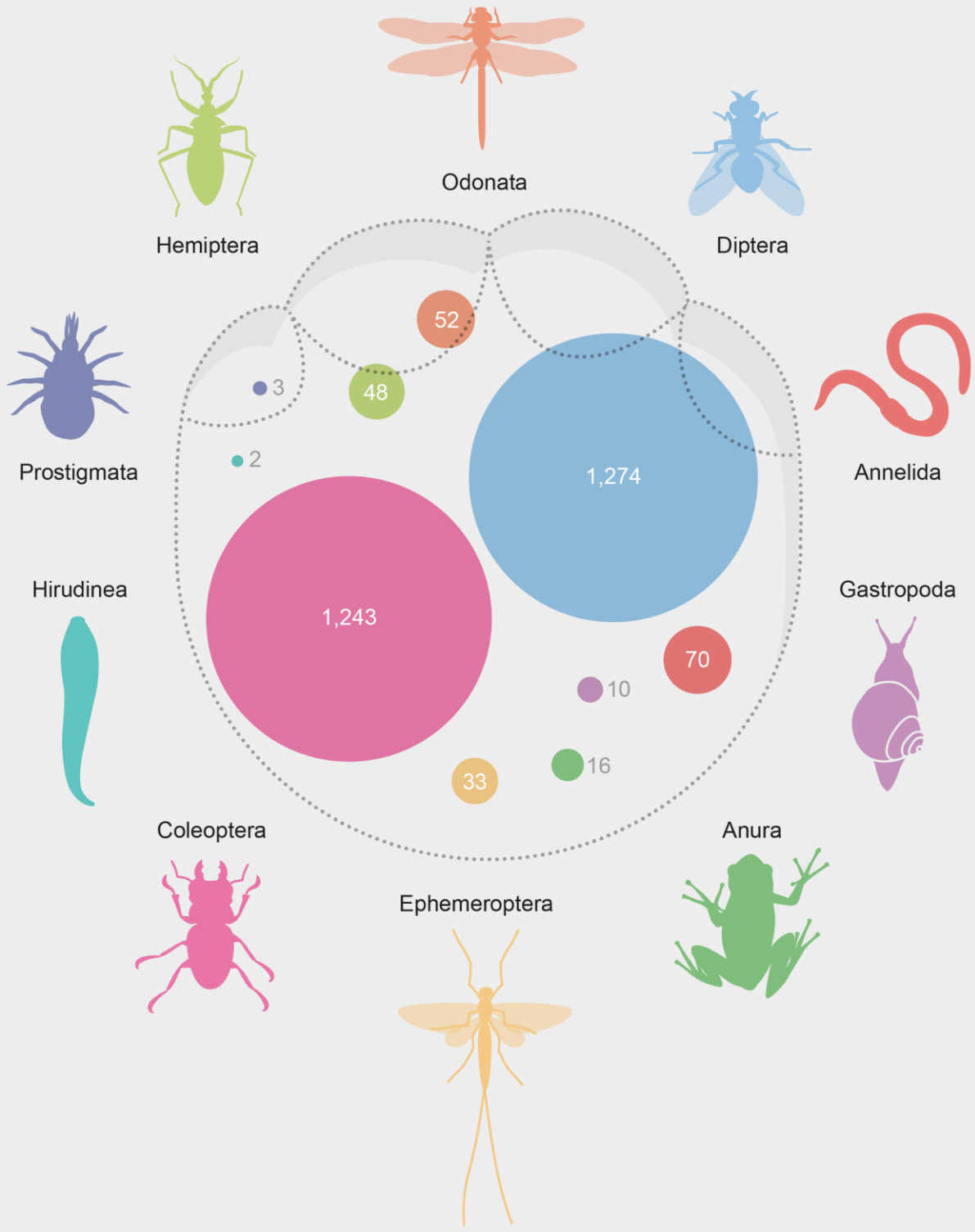
Elephants play a major role in conserving biodiversity and maintaining an ecosystem balance. Several species of plants and animals depend on elephants for their survival.

Dung piles and puddles generated by elephants act as a small ecosystem / microhabitat supporting various small organisms such as insects, lizards and frogs

"Aside from these frogs, I also found a broad array of invertebrates including beetles, termites, ants, spiders, scorpions, centipedes, and crickets in many of the elephant dung piles, suggesting that a dung pile can become a small ecosystem on its own." *(Ahimsa Campos-Arceiz; 2009)*

The Pool Party in a Pachyderm Print

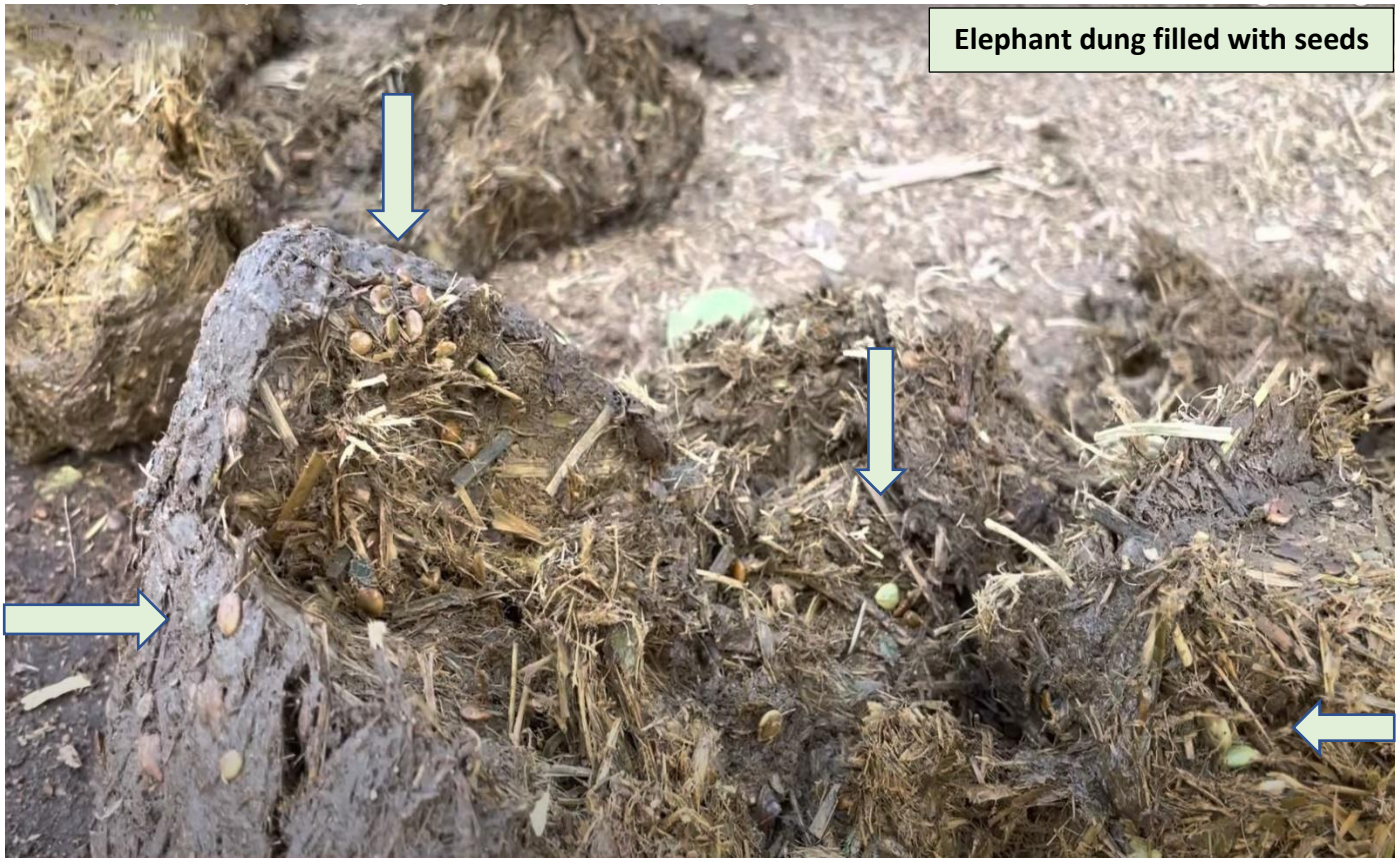
Thousands of animals were found in 30 elephant footprints. Animals represented in the data below are grouped by order.



Amanda Montanez; Source: "Elephant (Loxodonta africana) Footprints as Habitat for Aquatic Macroinvertebrate Communities in Kibale National Park, South-West Uganda," by W. Remmers, et al., in African Journal of Ecology; August, 2016.

Large quantities of seeds are spread through elephant dung. Dung nurtures the growth of the seeds and trees.

Elephants are classified as **Keystone Species** and as **Ecosystem Engineers** due to their enormous contribution to biodiversity and ecology



Elephant dung filled with seeds

Three species of frogs were dicovered to live in the dung pile:

*Ornate narrow-mouthed frog Microhyla ornata,

*Narrow-mouthedspecies Microhyla rubra,

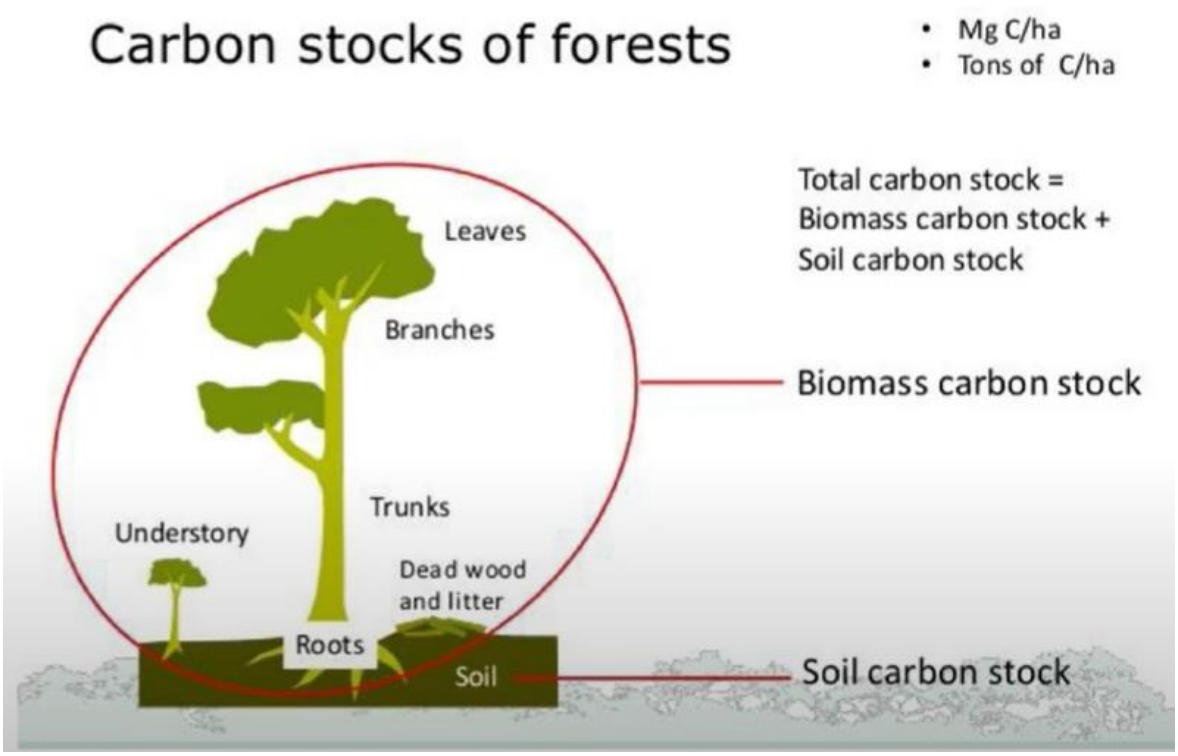
*Species in the Sphaerotheca genus.

How do humans and all other living organisms benefit from elephants?

Elephants grow trees,shrubs, plants, grass and also develop micro-habitats

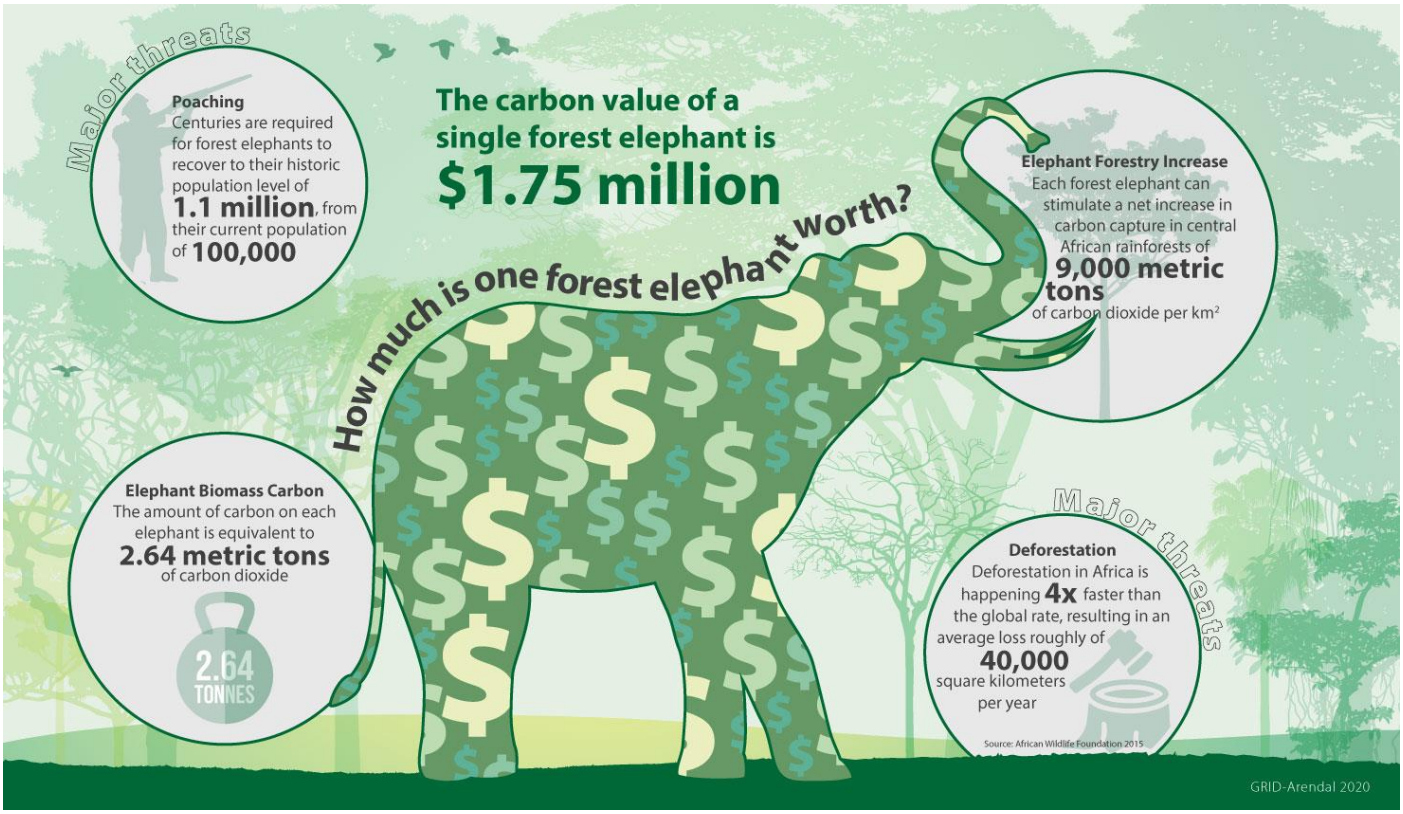
- Parts of trees, shrubs, plants and grass consumed by humans & several organisms
- Trees consume carbon,reduce global warming and protect the ozone
  - Reduced warming protects humans and all organisms
- Trees give oxygen
  - Humans and all organisms breathe oxygen
- Trees give rain
  - Rain fills the rivers, lakes, ponds and increases ground water level
  - Humans drink and cultivate with water
  - Organisms use water for drinking and as their habitat for living

Elephants enhance the carbon stocks of forests



The carbon stock refers to the amount of carbon stored in forests in the form of biomass, soil, deadwood and litter.

More the carbon stock, higher would be the forest's capacity to absorb and sequester carbon dioxide (CO_2), the main harmful greenhouse gas in the atmosphere, through photosynthesis



Article | Published: 15 July 2019

Carbon stocks in central African forests enhanced by elephant disturbance

Fabio Berzaghi ✉, Marcos Longo, Philippe Ciais, Stephen Blake, François Bretagnolle, Simone Vieira, Marcos Scaranello, Giuseppe Scarascia-Mugnozza & Christopher E. Doughty

Nature Geoscience **12**, 725–729 (2019) | Cite this article

Abstract

Large herbivores, such as elephants, can have important effects on ecosystems and biogeochemical cycles. Yet, the influence of elephants on the structure, productivity and carbon stocks in Africa's rainforests remain largely unknown. Here, we quantify those effects by incorporating elephant disturbance in the Ecosystem Demography model, and verify the modelled effects by comparing them with forest inventory data from two lowland primary forests in Africa. We find that the reduction of forest stem density due to the presence of elephants leads to changes in the competition for light, water and space among trees. These changes favour the emergence of fewer and larger trees with higher wood density. Such a shift in African's rainforest structure and species composition increases the long-term equilibrium of aboveground biomass. The shift also reduces the forest net primary productivity, given the trade-off between productivity and wood density. At a typical density of 0.5 to 1 animals per km^2, elephant disturbances increase aboveground biomass by 26–60 t ha^{-1}. Conversely, the extinction of forest elephants would result in a 7% decrease in the aboveground biomass in central African rainforests. These modelled results are confirmed by field inventory data. We speculate that the presence of forest elephants may have shaped the structure of Africa's rainforests, which probably plays an important role in differentiating them from Amazonian rainforests.

Section 4: Wild vs. Captive elephants

Captivity destroys ecosystems & biodiversity and in turn has a huge impact on all living organisms including humans

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Comparison of the life of captive elephants vs. wild elephants

Wild Elephant	Captive Elephant
Social life: Female elephants live their entire life along with their natal herd. Male elephants live with their herd till the age of about 15 years (i.e. till they reach adulthood)	Denied an opportunity to live with its natal herd
Reproduction: Elephants' reproduction cycle regular	Opportunity for reproduction denied.
Conservation of keystone species done. Elephants calve only once in 5 years leading to a very slow reproduction, so allowing elephants to live in the wild is very important for conservation.	Goes against the conservation of keystone species, as no reproduction happens.
Contagious Disease: Chances of getting infected with such diseases is very rare	There is a high chance of elephants getting infected by humans. For example, TB spreads from humans to elephants. This leads to the risk of life for the animal
Mud bath: Elephants do regular mud baths to remove the parasites on their body and for cooling their body	The opportunity to do a mud bath is prevented as the majority of them don't have access to fresh water sources such as lakes / rivers
Musth: Musth is a condition in male elephants that occurs for about 3 months every year. During this period the elephants have a very high level of testosterone and are highly aggressive. Fluid secretion at the temporal gland is observed. Musth is a sign breeding readiness of a healthy male elephant	During musth, the male elephants are chained on all four legs and made to stand like a statue for several months. This causes serious damage to the physical and psychological well-being of the elephant.
Learning: Elephants learn various aspects of their life by imparting knowledge from their natal herd. For example, the species of plants to feed, migratory routes, water hole locations, predators, alternate forests for feeding etc.	An elephant kept in captivity is completely denied this learning opportunity.
Human control: As the elephants roam free, they are completely free of human interference.	Elephants are tamed in a kraal for several months with brutal attacks to obey the command of the mahout (elephant keeper). Every time a mahout is changed, the brutal attack repeats to instil the sense of fear in the elephant, to obey the new mahout. In several places, post musth, brutally attacking the male elephant, is a procedure followed every year, as the mahouts think the elephant will not obey them after musth.

Wild Elephant (continues.....pg. 2)	**Captive Elephant** (continues.....pg.2)
Chaining: This scenario does not prevail. The animals roam freely.	Elephants are chained for a major portion of a day. This is an extremely cruel way of keeping an animal.
Psychological well-being: The animals live a natural life leading to excellent psychological well being	Cruel practices, lack of proper diet, artificial atmosphere, lifelong separation from family and brutal taming methods lead to serious psychological stress on the animal. The animal becomes insane and exhibits stereotypic behaviours such as continuous head bobbing, body swaying etc.
Bathing: The elephants have the opportunity to bathe in a river or lake with fresh water. Showering, using their trunks and immersing their whole body in water to subside the heat, is done.	In most cases, the animals are denied an opportunity to get access to a lake or river. They are bathed using a hosepipe.
Drinking water: The animals have an opportunity to access fresh water from a lake or river	Water is given in a bucket (or) using a hosepipe. Also, water is given at the discretion of the mahout, not when the elephant really needs it.
Physical exercise-Walking: Elephants on average walk 20kms every day for food and water. This gives enormous physical exercise needed for such a large mammal	The elephants are chained for major portion of a day denying the opportunity for any form of physical exercise that leads to serious problems such as arthritis, obesity etc.
Neck exercise: Wild elephants frequently browse on leaves on tall trees by lifting their head and it gives exercise to their neck	Captive elephants never get this opportunity, so they lack neck exercise, which is vital for their health.
Lack of sleep and rest: This scenario does not arise	Captive elephants, when kept inside the shed are chained on two opposite legs (or) three legs. This prevents them from lying on the ground and sleeping (which is the method for long-duration sleep) (or) even sitting on the floor. Elephants with serious arthritis problems also are denied an opportunity to rest by lying down (or) sitting, leading to a prolonged painful life. This is very cruel.
Danger to human life: This scenario does not arise except on accidental close encounters of humans in which the animal attacks for self-defence.	Multiple instances of captive elephants attacking people that resulted in fatalities are recorded. This includes incidents in Tamil Nadu, Kerala, Maharashtra etc.
Diet: Elephants in the wild consume more than 100 species of plants. This gives them all the necessary nutrients needed for their physical health	Captive elephants' diets are restricted to just 2 (or) 3 species of plants. Manmade artificial food is also fed. All the above lead to severe malnourishment

Wild Elephant (continues.....pg. 3)	**Captive Elephant** (continues.....pg.3)
Foot infection: As the elephants walk in mud, the scenario for foot infection is absent.	As the elephant is kept on hard concrete surfaces for major portions of a day, the animal gets frequent, serious foot problems.
Browsing and grazing: The opportunity for browsing and grazing is plentiful.	Browsing and grazing opportunity is completely denied.
Body temperature regulation problems: Elephants have a very weak thermoregulatory system owing to very minimal sweat glands (only around toenails) and the presence of intra-abdominal testicles in males, which is otherwise external in the case of most mammals. The body temperature of elephants is 37 degrees Celsius and their comfort zone is 22-25 degrees Celsius. In the dense forest, this temperature (22-25 degrees) prevails even during peak summer ensuring the animal is not affected by heatstroke. Also, the presence of lakes, rivers plus wet mud bath ensures temperature regulation in elephants.	**Heatstroke** is a major problem in captive elephants. In the cities temperate easily go above 40 degrees celsius in summers. Also, most of the captive elephants are kept in a tin-roofed / asbestos roofed shed. Such sheds retain the heat and produce the effect of a burning oven. Without any provision to access river (or) lake (or) wet mud bath to cool down, constrained inside a burning shed, the animal undergoes immense suffering.
Complexity in medical treatment: This scenario does not arise, except on very rare occasions of treating a wild elephant that was affected due to natural causes	Unlike cats (or) dogs, providing medical treatment to the largest land mammal is very complex. Any damage caused in its body might lead to a fatal end due to the complexity of the healing process. Proper medical devices, accessories, equipment etc. are not available for treating elephants. For example, a broken leg of a dog can be analysed with an x-ray and further treatment can be attempted. In the case of elephants such options are very rare at present.
Biodiversity exposure: Wild elephants are on constant travel in search of food and water. They travel several hundred kilometres every year. In this journey, they encounter a wide variety of ecology (plain grasslands, mountains, dense rain forests, lakes, rivers, ponds etc.) They are also exposed to a rich variety of species such as tigers, deer, bison, bears etc. This exposure gives immense knowledge about interacting with various components of biodiversity.	Captive elephants are completely denied this wide spectrum of exposure and they are kept in appalling conditions leading to mental insanity.

Consequences of prolonged chaining and standing on hard substrates

Documented facts by various elephant scientists

- The forefeet of elephants have a digit-grade structure and hind feet are semi-*plantigrade (Mikota et al, 1994)* implying weight-bearing by the digits of the forelegs and sole & digits of the hind legs. Thus, an elephant that is severely restricted in its movement due to chaining cannot have a choice in its decision to shift weight from the fore/ hind legs by assuming suitable postures such as lying down/spreading its feet to a suitable distance to distribute weight uniformly.

- *Kurt and Garai (2007)* suggest the formation of deformed limbs to be a consequence of abnormal postures caused by chaining on uneven substrates.

- Restricting movement and/or keeping the elephant on cold, damp concrete surfaces is thought to lead to degenerative joint diseases in elephants *(Mikota, et al., 1994).*

- Abrasions caused by continuous chaining can result in skin cracks and wounds which are difficult to heal in elephants; chain scars occurred more on the hind feet as chains exert pressure when pulled by the elephant *(Kurt and Garai, 2007).*

- Overgrown nails/cuticles and excessive footpad growth, are linked to inadequate exercise leading to poor wear and tear of the feet, necessitating regular feet trimming procedures such as trimming of the pad, filing of the cuticle/ nails *(Mikota, et al., 1994).*

- According to *Varma (2009) and Buckley (2008),* captive elephants in natural habitats— large spaces with earthen natural substrate— required little foot care. According to the authors, joints stiffen in elephants made to stand for long periods on concrete; in a confined environment liquid waste from the elephant is difficult to remove, which can lead to infection.

- The rocking/ swaying stereotypic movements exhibited by elephants result in pressure on feet and nails with consequent tissue damage and thin footpads.

- Non-human animals such as elephants undergo trauma in close confinement captive situations: such situations include loss of control by the elephant over its life, deprivation in the form of social isolation, chaining and restricted movement, among other features. Trauma is described as a form of stress in which the animal experiences a physical/ psychological event that is perceived to be life-threatening.

- Manifestation of such stressors includes behavioural expressions such as stereotypy, increased aggression, etc. *(Bradshaw, 2007).*

- Increased frequency of stereotypic behaviour was observed among elephants that were chained (both fore and hind legs) as compared to the same elephants being let loose in a fenced place (penned) *(Friend, et al., 1999).*

- The rear feet of “penned” elephants (free to move inside a fenced sanctuary) were cleaner and healthier as the elephants’ excreta (dung/ urine) did not accumulate around their feet *(Friend, et al., 1999).*

- Severe and chronic cases of foot/leg problems in elephants in zoos have led to euthanasia of some elephants: of the sixteen captive Asian elephants euthanized in a span of ten years (1977-1987) in the U.S., nine were euthanized due to severe pododermatitis *(Mikota, et al., 1994).*

Foot and nail – critical problems (images below by Elephant Aid International)

Lack of walking and standing on a hard surface the whole day leads to overgrown footpads and nails. Such condition results in **infection, lameness and osteomyelitis.**

Osteomyelitis is a bacterial infection that causes the toe bones to disintegrate, leading to the elephant's physical collapse and subsequent death. Elephants with such foot conditions live an unimaginable painful life and eventually die without any treatment.

COMPARISON

Healthy nails

Healthy foot pad

Over grown nails

Cracked nails

Right: Osteomyelitis
Image by Elephant Aid International

Section 5: Case Study - Zoo Elephant Shankar

What will happen if a female elephant is brought from Africa, to accompany the Delhi Zoo's (India) lonely African elephant Shankar?

About Shankar- The African elephant in the Indian zoo

Shankar, a male calf was given as a diplomatic gift by Zimbabwe along with another female calf (Bombai) in the year 1998. The calves were kept at the Delhi Zoo. After 8 years of arrival, the female elephant died. Since then, for the past 16 years (as of 2022) Shankar is kept in solitary confinement and chained for the majority of the day.

Regarding the opinion of bringing one more elephant as a partner to Shankar

There is an opinion to bring a partner female elephant for Shankar, from Africa. This section explains why this idea will be a disaster.

Impact of isolating animals from their species

An animal that is torn off from its family, for any reason, is going to face serious problems in its life.

Example: Large-scale culling of adult elephants in South Africa led to a situation of having several orphan male elephant calves. After a few years, when these orphan elephants were left in the wild, they started killing endangered Rhinos (headcount about 50), as they thought Rhinos are a threat to them and also due to aggression caused by musth. Scientists have never seen such behaviour among other wild elephants. A detailed study of this problem revealed that these orphan elephants did not have any elderly bull (acting as a father figure) and teaching them about the life of elephants, dos and don'ts, etc. These are learned skills that any wild animal learns from its family.

In this aspect, injustice was done to Shankar who was removed from his family as a calf. If a female elephant is removed from its family, it will be subjected to multiple serious problems as described in the previous section (table)

A Murder Mystery: Why Were Elephants Slaughtering Rhinos? -- Lack Of Adult Role Models Gets The Blame

Oct 23, 1994

Seattle Times news article

Liz Sly
Chicago Tribune

JOHANNESBURG - It was after the second or third corpse was found that conservationists at the Pilanesberg game reserve realized they had a major problem: Someone, or something, was systematically killing rhinos, and the chief suspects were elephants.

Elephants don't normally kill rhinoceroses. So when the attacks began in April, the game rangers on the reserve, north of Johannesburg, were reluctant to believe what was happening.

But the evidence, although baffling, was unmistakable.

Some of the dead rhinos had gaping wounds, shaped like elephant tusks, in their backs. Others had suffered broken ribs and internal injuries that could have been inflicted only by a much larger animal.

There were upturned and trampled trees at the death scenes - always a telltale sign of elephants. And finally, the giveaway of many a murder mystery, there were footprints - elephant footprints.

By June, the serial elephant killer or killers had claimed four confirmed rhino victims and six suspected ones whose corpses were too badly decayed to establish positively the cause of death.

But Greg Stuart-Hill, the region's chief ecologist, said there are few doubts that the six also had fallen prey to the same

Clive Walker, chairman of the Rhino and Elephant Foundation of Africa, believes the problem goes back to the childhood trauma suffered by these translocated elephants and to the lack of parental authority throughout their formative years.

As babies, these elephants watched their parents being slaughtered, he said. Then they were trucked away from their homes and released into unfamiliar surroundings.

"These are highly intelligent animals with a high level of memory retention and strong emotional attachments," Walker said. "The culling experience is highly traumatic."

Repetition of the same blunder:

The enormous problems and lifelong sufferings the captive elephants undergo are discussed in detail in the foundation's book on "Life of captive elephants". When Shankar is already subjected to such enormous cruelty, bringing one more elephant from Africa, tearing it off from its family will be a repetition of the same blunder and subjecting one more animal to lifelong suffering.

A calf born at the zoo is sentenced to life-long imprisonment

When a calf is born at the zoo, the blunder done for its parents is extended to the next generation.

This leads to the lifelong (about 70 years) suffering of the calf with all the problems mentioned in this document and also in the foundation's book on captive elephants' life.

Knowledge and skills needed to raise a calf (Learned behaviour)

Female elephants live with their family till their death. The family consists of the elephant's mother, grandmother, aunts, and cousins. The family can be as large as 70 elephants. Elephants learn the art of raising their calves from their senior family members. They also get constant support for raising the calves from the family.

What does scientific data say about captive breeding?

There is no evidence that captive breeding methods like artificial insemination have improved overall birth rates, as elephants in captivity have a high rate of stillbirths and a very high rate of infant mortality. (Royal Society for Prevention of Cruelty to Animals, England). One such case from Pittsburgh Zoo is given here.

Barcelona Zoo elephants

Image:

Elephant Voices

Zoo Impregnates Elephant With Baby They Know She Can't Raise

"They were under a lot of business pressure ... they were willing to do anything."

By Elizabeth Claire Alberts
Published on 8/30/2017 at 4:44 PM

UPDATE 8/30/2017: *On Wednesday morning, Pittsburgh Zoo announced that staff made the decision to euthanize Seeni's baby, who was born prematurely and had trouble eating and gaining weight. "We fully stand behind the informed and calculated decisions made, and the valiant efforts and commitment of the team of experts who cared for the elephant calf," Pittsburgh Zoo said in a press release. "The Zoo's keeper and veterinary staff demonstrate dedication to the care and welfare of animals every single day and always act in the interest of what is best for each individual animal in every unique situation."*

The elephant never should have been taken out of Africa, and she definitely shouldn't have been forced to have another baby. That's what animal welfare advocates say about Seeni, a 23-year-old elephant who tragically lost her family in Africa and was transported to Pennsylvania to take part in a captive breeding program.

Twenty-one years ago, when Seeni was just a baby, she lived in the wild with her family in the Kruger National Park region of South Africa. But her life drastically changed when the country killed Seeni's family during an organized cull, which was done to protect vegetation, and to supposedly strengthen

After being moved to the Pittsburgh Zoo, the weak baby elephant was almost immediately placed on display for the public, which Frohoff believes was an effort to bring in more visitors and money to the zoo. "It's very profitable for them," she said.

While Frohoff is particularly concerned for the health and well-being of Seeni and her baby, she points toward a larger issue at hand — the zoo's treatment of elephants as objects, rather than as sentient beings.

Last week, the baby elephant even underwent surgery to get a feeding tube inserted in her oesophagus. While the baby elephant is said to be recovering well, Frohoff worries about the long-term effects of removing the baby from her mother.

"If this baby survives, she will not have the maternal skills needed either to successfully reproduce," Frohoff said. "So, what they are doing is breeding successive generations of psychologically impoverished elephants, which in the opinion of many conservation biologists is irresponsible. She [the baby] has already suffered the absence of her mother … but she's also suffering both psychologically and mentally from these invasive medical procedures."

"The old paradigm that appears to be being used is that elephants are mere objects, while ignoring all of the scientific evidence to the contrary that they are sentient individuals and complex social cultures that then create what is an elephant," Frohoff said.

"They [zoos] are not considering that what makes an elephant an elephant is a rich and complex psychological and cultural way of being in the world, and if you take away their cultural identity [and family] … you are creating, through that process, an extremely unnatural elephant that cannot be expected to reproduce successfully."

Young elephant killed by older bull elephant at a Bristol zoo leaving keepers 'distraught'

M'Changa, a 12-year-old African elephant, sustained fatal injuries in an incident with an older bull elephant

Animals trapped at zoos cannot escape, even if there is a life-threatening danger. Such fatal encounters may occur if incompatible animals are kept in the same enclosure.

THE TIMES OF INDIA

A jumbo loss for zoo

TNN | Mar 9, 2009, 08.46 PM IST

MYSORE: After suffering from arthritis for six years, a female African elephant died at Mysore Zoo on Monday. With this, the number elephants in the zoo has declined to 10, which includes two African, both males, and eight Asian elephants.
Zoo authorities said 44-year-old Jambi collapsed at the enclosure around 11 am on Monday. The pachyderm was living with its family -- African tusker Timbo (50) and Richi (14).

Jambi, born in mid-1960, was in good health before it was attacked by her mate Timbo in 2002. In the incident, Jambi fell into moat and sustained injury on its lumbar region and later developed arthritis. After the attack, the pachyderm spent many sleepless nights. "We had contacted many zoos overseas to treat Jambi, but all went futile because it was a peculiar case," the authorities claimed.

Jambi did not respond to treatment despite repeated efforts by zoo authorities. Since September 2007, her condition deteriorated and it had developed stress and tension, they added.

Zoo executive director Vijay Ranjan Singh told `The Times of India' that Mysore is the only zoo in India having African elephants. With the death of Jambi, the authorities are worried as from where to find a mate for Timbo, the aggressive tusker.

The above statements from the zoo officials prove that the female African elephant Jambi lived a painful, horrible life without any treatment and had a miserable death in 2009, after suffering for 7 long years.

Non availability of receptive females. Mismatch in musth (male) and oestrous (female - approx. 16 weeks) cycles could be the reasons for such attacks.

Mysore Zoo – Karnataka

The adult male African elephant has been kept isolated due to injury inflicted by the elephant on the adult female and sub-adult elephants – "Zoo Elephants of India" report

Delhi zoo is not capable of handling wild animals

450 animals died in Delhi zoo in 3 years, reveals RTI reply

SOMRITA GHOSH @ New Delhi

IN the last three years, the National Zoological Park located in the national capital has lost around 450 animals, including tigers, lions and others, revealed an RTI.

According to the reply received by activist Vivek Pandey, the zoological park commonly known as Delhi zoo, hosts 1,347 creatures. In 2019, it saw the death of maximum animals — 189. There were 123 deaths in 2020 and 137 in 2018, stated the reply.

In this period, there have been deaths of six tigers and tigresses and one lion. While the RTI reply does not state the reason for the death of tigress Nirbhay, it also does not mention its cub which died of acute illness, as claimed by the zoo administration last year. They had said last year that the six-year-old Nirbhay died due to complications after given birth to two cubs on December 10.

In 2020, two tigresses, one tiger and one lion died. In 2018, two tigers were the casualties. Reasons for death, as mentioned in the RTI, states senility, renal failure and multipledge nerative lesions.

However, maximum deaths reported were of black bucks. Around 100 of these animals died in this period, stated the reply. The IUCN List has declared this species as Nearly Threatened. Hunting of black bucks is prohibited under Schedule I of the Wildlife Protection Act of 1972.

The activist had also sought information on budget and medical expenditure details of the zoo. The reply stated that the government provided funds of ₹41 crore, ₹23.18 crore and ₹23.02 crore for the 2018, 2019 and 2020, respectively. Zoo authorities in this period spent 7.09 lakh, ₹14.89 lakh and ₹10.41 lakh on medical expenses.

> **Death of endangered species like black bucks and others should be a point of concern. The Central government should have a mechanism to monitor the functioning of zoological parks**
>
> Vivek Pnadey, activist

"Funds for the zoological park are released in crores, but not utilised properly for medical care of these animals. This could be a reason for the high mortality rate. Death of endangered species like black bucks and others should be a point of concern. The Central government should have a mechanism to monitor the functioning of zoological parks," said activist Pandey.

Lions from Gujarat in exchange deal

EXPRESS NEWS SERVICE @ New Delhi

THE Delhi zoo will soo get three lions from Gujarat for breeding purposes under an exchange programme, officials said.

"The Central Zoo Authority has approved the proposal to bring one lion and two lionesses from Kevadia and Sakkarbaug in Gujarat," Delhi zoo Director Ramesh Pandey said on Tuesday. In return, Delhi will give two hippopotamuses.

Another exchange with the zoo in Nagpur is on the cards. Delhi will get two tigers as part of that, Pandey said. The zoo will also receive a pair of sloth bears from the Nagpur facility.

Arignar Anna Zoological Park in Chennai is likely to provide a male tiger to Delhi, the director said. A tigress was brought from Kanpur for breeding purposes last November.

The Delhi zoo is participating in the 'Conservation Breeding Programme' of the Royal Bengal Tiger. According to the Central Zoo Authority, Conservation Breeding Programme is the science of conserving a species by preventing imminent population collapse in the wild due to a large number of eliminative pressures such as habitat loss and others.

With PTI inputs

Delhi zoo does NOT possess the expertise and passion to manage wild animals.

The above-mentioned deaths are a shocking proof for that

Mahout (elephant keeper) trying to attack and control Shankar (the African elephant)

Image by: Claire Palmer

Critical problems faced by Shankar

- **Male elephants in the wild, live in small bachelor groups. Shankar being in isolated captivity for about 16 years (as of 2022) is highest form of cruelty. This is also in violation of CZA's Recognition of Zoo Rules (Rule 10 – Section 9.4) that says zoo animals should NOT be kept in isolation for more than 6 months**
- **Elephants in the wild have an opportunity to reproduce, this is denied for Shankar**
- **The enclosure is very small (about 1.2 acres)**
- **Elephants in the wild walk a minimum of 20 kms every day, browsing and grazing. This opportunity is completely denied for Shankar**
- **Lack of exercise leads to multiple health problems**
- **The pool here is always very dirty filled with algae (it could be toxic Blue Green algae (Cyanobacteria)). This condition is being reported even in 2004 (The Indian Zoo Inquiry report). This is in violation of "Elephants upkeep guide" and rules of CZA. This indicates that the zoo has not taken any steps to clean the pool on a regular basis.**
- **As the pool is very dirty, the elephant is unable to use the water in the pool for taking bath.**
- **There are no trees inside the enclosure. Elephants do not have a well-developed thermoregulation system. Male elephants' testicles are inside their body. These factors demand a place with pleasant temperature and plenty of shade for the elephants to live. Due to lack of trees, there is no shade available and the temperature is harsh.**
- **Elephants use trees as scratch posts to remove the itching sensation on their body. Lack of trees denies the opportunity to use a scratch post.**
- **The scorching hot weather of Delhi (for about 6 months in a year) is not suitable for elephants.**
- **Delhi being one of the most polluted cities in the world, the atmosphere is not apt for elephants (or) any other wild animals to live.**
- **Close proximity of the railway track leads to constant noise pollution (24 hours of a day).**
- **Such noise pollution disturbs the Circadian Rhythm (biological clock controlling the wake-sleep cycle) of Shankar, which impacts the sleep of the animal. Such deprivation of sleep leads to serious health problems.**
- **Chain used for tying does not have a leather (or) rubber hose covering it. This leads to skin abrasion and severe pain. This is in violation of "Elephant upkeep guide, 2013" by CZA.**
- **Chained for several hours during night, which is unnecessary, as the elephant cannot escape from the enclosure surrounded by a moat.**
- **Shankar was chained even during day time as per Indian Zoo Inquiry report (2004).**
- **Due to isolated captivity Shankar is exhibiting stereotypic behaviour such a "body swaying". This is a sign of serious psychological damage. The same signs of distress were reported in 2004, Indian Zoo Inquiry report, indicating that this prolonged problem was never addressed by the zoo officials.**

Note: More details in the sections "Comparison table" and "Health problems documented by scientists"

Section 6: Sending back to the wild - Progressive elephant conservation projects

David Sheldrick Trust – Kenya

Walking the orphans in to the jungle, to get them familiarised with the jungle

NGOs in India and other countries focus on hand raising orphan elephant calves and sending them back to wild, when they become adults.

Few examples of such progressive elephant conservation projects are

India: Wildlife Trust of India; Kenya: David Sheldrick Trust; Zambia: Game Rangers

Projects done by such NGOs need to be taken as role models and focus of Indian forest departments and CZA should shift from 'captivity' to 'releasing back to wild'

David Sheldrik Trust, Kenya: Feeding milk to orphans

Game Rangers, Zambia: Walking the orphans in to deep jungle, to prepare them for a soft release in to the wild

Section 7: Scientific Findings, Reports & Recommendations

Rescued elephants from circuses and zoos rehabilitated at a 2700 acres sanctuary in Tennessee USA

Views of "Royal Society for Prevention of Cruelty to Animals" (RSPCA-Australia)

The problem with keeping elephants in zoos is that their needs cannot be adequately met in a captive zoo environment. Consequently, the welfare of elephants kept in zoos is severely compromised. Potential causes for poor welfare in zoo elephants include restricted space and opportunity for exercise, unsuitable climate, extended periods of confinement, hard or wet flooring, inappropriate diet, small social groups, lack of stability in social groups, lack of opportunity to exhibit natural behaviours, and exposure to aversive stimuli in training and handling.

For example, zoos cannot provide adequate space for elephants. Elephants are, by nature, nomadic creatures that are constantly on the move. It is nearly impossible to provide, even an adequate amount of space and exercise, in a captive environment.

In addition, zoos cannot mimic the social structure that elephants need to thrive. Elephants in the wild can exist in herds numbering up to 58 animals. Female elephants particularly are intensely social animals, existing in small groups made up of mothers, calves, 'aunts' and so forth.

These animals develop strong lifelong bonds with these family members. When elephants are held in captivity, moved and separated from their group, this cause unacceptable levels of distress and the breakdown of these family groups. A recent study showed that captive zoo elephants showed increased stereotypic behaviours such as weaving and pacing, where they were separated from other elephants or confined to indoor areas.

One argument put forward to justify the keeping of elephants in zoos is that they contribute to the conservation of the species. In fact, zoos have contributed little to the conservation of either African or Asian elephants since they were first brought into captivity.

There is no evidence that captive breeding methods like artificial insemination have improved overall birth rates, as elephants in captivity have a high rate of stillbirths and a very high rate of infant mortality. Moreover, elephants in captivity die at a younger age, experience a range of health problems and also exhibit signs of severe stress, including the constant, repetitive 'weaving' that is familiar to many observers.

Neither the World-Wide Fund for Nature (WWF) nor the International Union for Conservation of Nature and Natural Resources (IUCN) think captive breeding contributes significantly to elephant conservation.

Inspection Report by RSPCA-UK

Live Hard, Die Young: How elephants suffer in zoos (2006) - An RSPCA report on the welfare of elephants in European zoos, using the results of the detailed study done by us. We review the key issues uncovered by the study and make recommendations to stop elephants from being imported into Europe, stop breeding, phase out keeping elephants in European zoos, and for zoos to refocus their resources on protecting these animals in the wild.

Views of Sheldrick Wildlife Trust, Kenya

"No zoo in the world can provide elephants with the complex social structures and vast spaces they need to thrive."

- **Angela Sheldrick, CEO, Sheldrick Wildlife Trust**

Report by Born Free Foundation – A multinational wildlife charity

Elephants in Zoos – A Legacy of Shame

Despite the large and growing volume of evidence highlighting the problems associated with keeping elephants in captivity, upwards of 1,000 elephants are housed in zoos around the world, most of whom suffer in captive conditions that cannot possibly mimic their wild habitats or provide them with the social and cultural opportunities or choices available to their wild counterparts. As a result, elephants in zoos typically suffer shortened life expectancies, as well as poor reproductive success, high calf mortality, a variety of physical problems, and a range of behavioral abnormalities.

Elephants in Zoos – A Legacy of Shame outlines the history and continuing plight of elephants in zoos across the United States, Canada, and Europe. Using specific individual cases, the report highlights the impacts of captivity on the physical and psychological health and welfare of individual elephants, the unsustainable nature of existing captive populations, and the impacts of wild capture for captive use on the social stability and conservation of wild elephant populations, with the consequent and serious knock-on effects on the wider ecosystems of which they are involved. The report also highlights the ethical and public safety concerns associated with keeping elephants in zoos.

We conclude that elephants do not belong in captivity and recommend that keeping of elephants in zoos should be phased-out. The capture of wild elephants for captive use and the breeding of elephants in zoos should be brought to an immediate end,

Views of "Elephant Voices" – Elephant Conservation Charity in Kenya

Dr. Joyce Poole

Elephant Ethologist and Conservationist

Co-Founder, Scientific Director, ElephantVoices

Joyce Poole has studied elephants and worked for their conservation and welfare since 1975. She graduated from Smith College, holds a Cambridge University PhD and was a Princeton University post-doctoral fellow.

Poole is a world authority on elephant behavior and communication. Her elephant discoveries include: The phenomenon and patterns of musth; infrasonic and long-distance communication; vocal imitation; vocal and gestural repertoires. She is co-author of *The Elephant Ethogram,* a publicly accessible online library of African elephant behaviour, has published numerous popular and scientific articles, written two books, and participated in scores of elephant documentaries.

Poole is a recipient of the Smith College Medal, the Jackson Hole Wildlife Film Festival Outstanding Achievement Award, and the Horace Dutton Taft Alumni Medal.

Long term studies on wild elephants show that these animals thrive in extensive social networks in large, complex ecosystems. By contrast, the majority of elephants in zoos are frequently separated from their relations and companions and are subjected to unsuitable climates and insufficient space. Many also face invasive reproductive and health measures, as well as the practice of chaining and physical control and discipline.

In an ideal world there would be NO elephants held captive in zoos. Live elephants would be replaced by advanced, interactive, virtual reality elephant exhibits, where people learn why elephants shouldn't be kept in confinement.

Multimedia theaters and web cameras would allow the public to view documentary films, and to follow wild elephants in their natural environment.

By partnering with field studies in such an endeavor, zoos would be able to meet educational and conservation goals. We believe that as the plight of captive elephants is better understood by a discerning public, depressed and dysfunctional zoo elephants will become increasingly unacceptable, and there will be broad demand and appeal for alternative exhibits.

Views of Mr. Shubhobroto Ghosh–Co Author–The Indian Zoo Inquiry, 2004

Many notable experts have spoken out against the capture and incarceration of wild elephants for display in zoos. Shankar is a potent example of mankind's brutality and insensitivity. He would have been best left with his own kind in Zimbabwe itself to associate and play in the wild with his kin as elephants do. In the current light of hard core scientific information that is coming out in different media on the behaviour of elephants, it would be prudent not to repeat the mistakes of the past by capturing further elephant calves only to subject them to torture and suffering in unnatural spaces. Many enlightened zoo directors have voiced their opinion on this tragic aspect of elephant captivity. Therefore it is strongly urged to leave free ranging African and Asian Elephants strictly where they belong, in the wild.

"The Indian Zoo Inquiry" report, 2004

Observation about Shankar:

The single African elephant is inappropriately chained

A number of animals are kept singly. The single chained African elephant presents a very distressing picture.

Recommendations for Shankar

All animals should be provided appropriate social environments. Social animals should not be kept alone.

The single African elephant should be moved to Mysore Zoo (the only other Zoo in India housing African elephants) or another facility abroad housing this species.

Reportedly, Delhi Zoo was trying to procure another African elephant as a companion.

The Zoo should abandon this plan as the elephants would still be in an abnormal social situation.

Summary of critical problems

Bringing a partner for the elephant Shankar, from Africa leads to removing of the female elephant from its natal herd.

Various problems discussed in this document will occur to the separated female elephant. To name a few

- Unable to exhibit innate behaviour in partner selection
- If non-compatible animals are kept in the same enclosure it will lead to a disaster.
- Lack of maternal instinct
- Psychological trauma due to forceful separation from family
- Learning "learned behaviour" will stop
- Psychological trauma
- Unable to raise a calf (in case it is born)
- Calf being imprisoned for its life at the zoo
- Trapped in the hands of unqualified people at the zoo
- Brutal attacks by mahouts, to make it obey the mahouts' commands
- Physical health problems due to lack of exercise.
- Lifelong chained confinement.
- Damage to biodiversity
- Unethical
- Cruel

Violation of constitution, laws and rules

- **Article 51A (g) in The Constitution of India 1949**

  Fundamental duties - It shall be the duty of every citizen of India to protect and improve the natural environment including forests, lakes, rivers and wildlife, and to have compassion for living creatures

- **The Central Zoo Authority (CZA) recognition of zoo rules (Rule 10 – sub-section 9.4) insists on not keeping any zoo animal isolated for more than 6 months**, but Shankar is in solitary confinement for the past 16 years (as of the year 2022)
- **CZA guidelines about the upkeep of zoo elephants (2013)**
- **CZA order (Nov. 2009) banning elephants from zoos that don't have proper facilities.**
- **Prevention of Cruelty to Animals Act - Section 11 (1). Treating animals cruelly:**
- **Prevention of Cruelty to Animals Act - Section 3 - Duties of persons having charge of animals:**

  It shall be the duty of every person having the care or charge of any animal to take all reasonable measures to ensure the well-being of such animal and to prevent the infliction upon such animal of unnecessary pain or suffering.

- **Ministry of environment and forests – Captive elephants management rules**

Recommendations

Based on the scientific, legal and ethical facts presented in this report, we very strongly recommend:

- To rehabilitate Shankar in a sanctuary in Africa as soon as possible
- Completely drop the plan of bringing one more elephant from Africa
- Phase out zoos, that cause enormous destruction to bio-diversity and rehabilitate the zoo animals.
- To ban diplomatic gifting of wild animals
- To ban the exchange of exotic wild animals by Indian zoos

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Elsa Foundation

Animal & Biodiversity Charity