



Live hard, die young

– how elephants suffer in zoos

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Herds of African elephants travel on average 12km per day in the wild.

Elephants in zoos die young. New RSPCA-commissioned research¹ reveals captive elephants in European zoos suffer from a catalogue of inadequate provisions along with poor welfare and early death. The RSPCA has seen no evidence to suggest that European zoos are able to keep elephants satisfactorily long term, and therefore believes they must phase out their elephant populations, with an immediate end to imports and breeding. They must also make immediate, substantial and monitored improvements to welfare standards for elephants currently in their care.

The scale of the problem

Zoo elephants are wild, not domesticated. Over 500 – 48 per cent of the world's zoo elephant population – are held in Europe. The majority of those in zoos are wild-caught – Asian elephants coming mostly from Burma, and African elephants from Zimbabwe. The rest probably came from timber camps or were born in zoos.

How zoo elephants are treated

RSPCA-commissioned research has revealed a catalogue of inadequate husbandry provisions for many European zoo elephants.

- **Elephants are often kept in unnatural social groups. Groups are small, with very different age**

structures compared to wild populations, and contain unrelated individuals. Elephants are weaned and separated from their mothers very early. The strong, lifelong bonds between females are frequently broken when they are transported to other facilities or separated as part of their husbandry. Single elephants are increasingly moved away from their social groups, and mothers are hardly ever transferred with their offspring.

- **Poor diets typically deliver the wrong balance of nutrients in the wrong form.**
- **Enclosures generally lack stimulation and are typically very small. Even the minimum enclosure sizes recommended by the American Zoo and**

¹ *A review of the welfare of zoo elephants in Europe*, Clubb R and Mason G, 2002.



Elephant enclosures in European zoos generally lack stimulation.

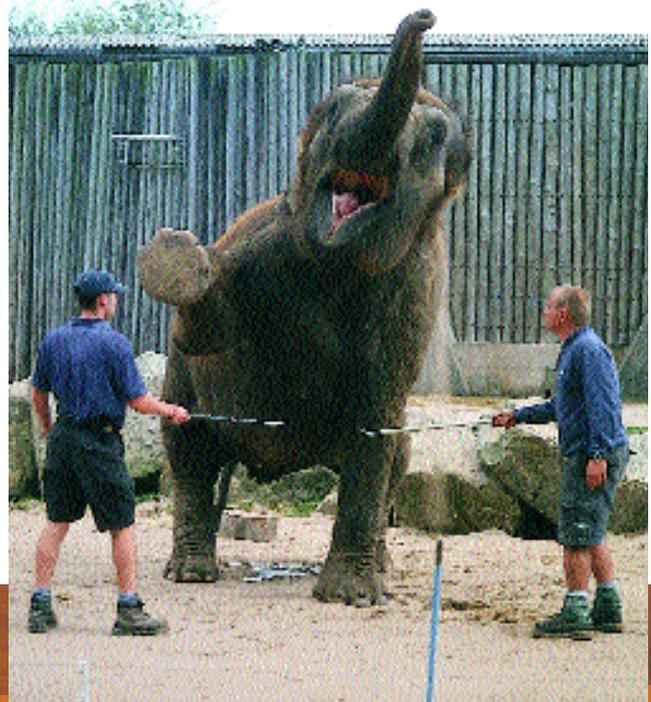
Aquarium Association (AZA) and the European Association of Zoos and Aquaria (EAZA) are still 60 to 100 times smaller than the smallest wild territories.

- **Some enclosures have hard, poorly drained flooring.**
- **90 per cent of European zoo elephants have no natural grazing.**
- **For most elephants the European climate may be too cold and wet – they can spend up to 16 hours confined indoors in cold weather.**
- **Elephants are the only dangerous wild animals in the UK, and probably in Europe, regularly cared for by a system involving unrestricted contact with their keepers (hands-on). In 80 per cent of European zoos, elephant handlers try to dominate elephants by psychological means, physical restriction and punishment – a system known as traditional free contact. Elephants are usually controlled by an ankus (the traditional sharp-ended ‘elephant hook’), but may also be subjected to electric cattle prods, ropes and chains. The use of such devices is typically unmonitored and often at the discretion of individual handlers. It is not known how many young zoo elephants are, or have been, ‘broken’ to facilitate**

training and obedience – a process that has potentially severe immediate and long term welfare implications. Obedience in these elephants is probably due to conditioning, habituation, fear and learned helplessness – not the dominance supposed by their handlers. Elephants do attack and even kill their keepers. There have been at least six deaths caused by elephants in free contact systems in European zoos since 1990 – three in less than three years in the UK.

- **Elephants are still trained to perform acts derived from circuses in European zoos, such as hind-leg stands.**

‘Exercise time’ at a UK zoo, 2002.



Welfare problems

The report identifies a range of welfare problems resulting from the conditions and manner in which elephants are kept in European zoos.

- Although most animals have a greater life expectancy in captivity compared to their wild counterparts, estimates for elephants suggest they live longer in the wild than in zoos. The mean life expectancy of elephants in European zoos is just 15 years for Asians and 16 for Africans – even elephants working in Burmese timber camps have a mean life expectancy of 30 years.

Individual Asian elephants as old as 79 have been reported in timber camps, while wild African elephants are estimated to live up to the age of 65. In contrast, the oldest recorded ages for zoo elephants are just 56 for Asian elephants and 50 years for African.

- Elephants born in zoos on average die younger than those imported from the wild. Stillbirth, infanticide and calf-rejection are collectively responsible for around 74 per cent of the deaths of infant elephants born in zoos.
- Data shows over 60 per cent of zoo elephants that survive beyond infancy, die through illness – including circulatory problems, foot problems and herpes. Tuberculosis is also a potential threat.
- Female Asian zoo elephants in one study were 31 to 72 per cent heavier than their wild counterparts – probably as a result of high-energy diets and lack of exercise.
- The arthritis that appears relatively common in zoo elephants may be the result of excessive body weight, lack of exercise, inadequate flooring, damp, unhygienic conditions, being trained to perform certain acts (such as hind-leg stands) and general stress.
- Being made to perform certain acts repeatedly can lead to other health problems, such as hernias.

- Malnutrition has been reported and can lead to deficiencies in vitamin E, calcium, iron and other nutrients. Intestinal problems such as enteritis, colic and impaction of the colon are believed to be more common in zoo than in wild elephants.

- Breeding rates in zoos are about 10 times slower than those in the wild or timber camps. The average zoo female produces one calf in her whole lifetime, compared with six in the wild.

Low female fertility could be caused by disrupted reproductive cycles (perhaps due in part to a higher incidence of ovarian cysts), excessive body weight (also linked with cysts), stress or reproductive stress/suppression – for example because of the relative instability of zoo herds.

Zoo females have short reproductive lives – at the most a quarter of that in the wild. Zoo-kept Asians breed very young – at 15 years on average, compared with 20-25 in timber camps and 18-20 in the wild.

When they start breeding earlier, they stop breeding earlier too. Their longevity is also affected: females that breed before 12 years old die earlier than other animals.

About 30 per cent of zoo males in one study were infertile due to low sperm quality. About 75 per cent of those tested have low sperm volumes. Behavioural problems (such as low libido) may also play a role. Possible causes are stress, dominance-based training – bulls that are considered subordinate to keepers or females may have lower sperm quality and testosterone levels – excessive body weight and specific nutrient deficiencies, such as zinc.

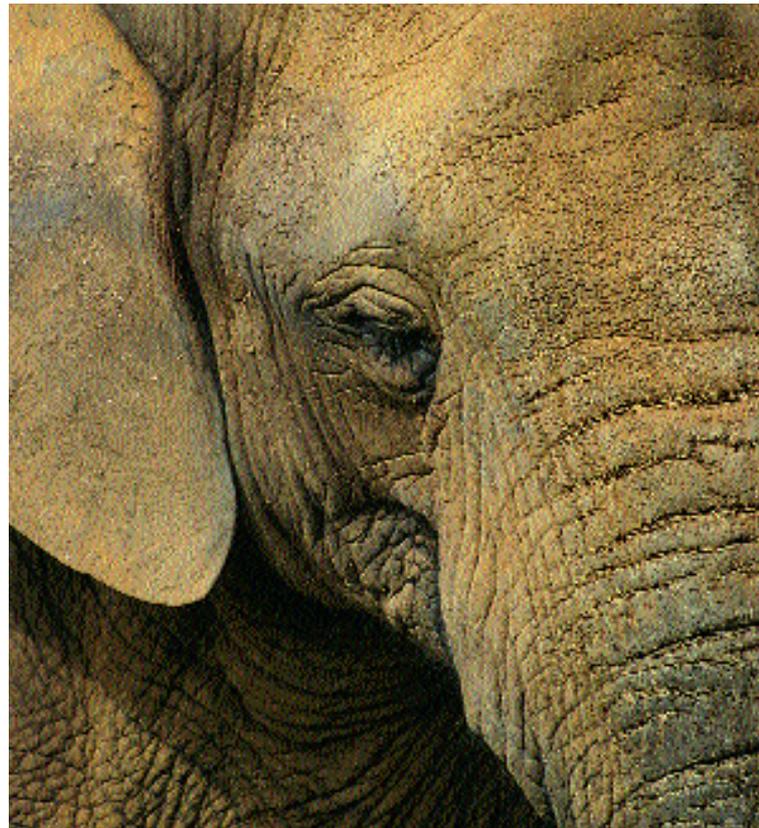
When successful, breeding in zoos may condemn more animals to poor living conditions because of limited space.





- Unnaturally structured, small social groups – so common in European zoos – have severe potential welfare consequences. They may affect the acquisition of learned skills, such as aspects of sexual behaviour and maternal care, and also limit behavioural stimulation. They may prevent females forming the strong bonds they do in the wild and possibly lead to aggression.
- The common movement between facilities (an increasing trend affecting 30 per cent of animals) has potentially serious welfare consequences for both the moved animal and its remaining group members. Such movements can lead to aggression as the group readjusts its social hierarchies. Captive-born animals are taken from their mothers when they are about three. Calves this young would still be suckling in the wild – taking them from their mothers at this age has severe potential implications for stress, behavioural abnormalities, immune functioning and reproduction.
- Data shows about 40 per cent of zoo elephants perform stereotypic behaviours. An example is persistent ‘weaving’,

where the animal stands and moves its body in figure-of-eight patterns. Grouping unrelated or mixing unfamiliar animals, inadequate enclosure sizes and designs, and lack of stimulation are all possible causes.



ANDREW FORSYTH/SPCA PHOTOLIBRARY

Why zoos say they keep elephants

Zoos claim keeping elephants supports conservation, education and research. But do these putative benefits really outweigh the welfare costs?

Conservation

Zoo elephants don't breed well and die early. This means more wild-caught elephants have to be imported. The World Wide Fund for Nature (WWF) and the African Elephant Specialist Group of the International Union for Conservation of Nature and Natural Resources (IUCN) do not think captive breeding contributes significantly to elephant conservation. Priorities in

elephant conservation have been identified by the IUCN. They include the establishment of more protected areas, enforcing anti-poaching legislation and various strategies to reduce conflict with humans – but not captive breeding.

Education

The claimed educational role has never been adequately quantified and as such it is hard to see what educational benefit elephants in zoos can offer.

Research

Though research has been carried out on zoo elephants, the same research could be done with elephants in other types of facility or in the wild.



ANDREW FORSYTH/RSPCA PHOTOLIBRARY

Circus style act being performed at a UK zoo, 2002.

What the RSPCA wants

■ No more elephants must be imported into Europe.

The RSPCA believes there is no justification under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) for their continued importation to zoos. CITES states that importation of Asian and most African elephants² is only allowed for 'conservation, education and research' to facilities that are 'suitably equipped to house and care for them'. And importation of African elephants from Botswana, Namibia and Zimbabwe³ must be 'to appropriate and acceptable destinations', as designated by the appropriate Scientific Authority.

■ No more elephants must be bred in Europe.

There are significant welfare costs to the animals involved, which are not outweighed by any real benefits. Captive breeding brings additional welfare costs as well as practical problems. The 50 per cent of progeny that are male are also particularly difficult to house well and safely.

■ Zoos in Europe that still keep elephants must phase them out.

Given the RSPCA's current knowledge of elephant welfare in European zoos, the RSPCA remains to be convinced that any of these zoos meet elephants' welfare requirements overall. Furthermore, the conditions under which elephants live in the wild (detailed in Clubb and Mason, and compared with captive conditions) are such that the RSPCA remains doubtful that the welfare requirements of elephants could be met by existing European zoos. Nevertheless, zoos must make every effort to provide the highest quality of life for their remaining elephants for the rest of their lives, in accordance with the recommendations below, and undertake not to replace them.

■ In the future zoos should refocus their resources on wild elephant welfare.

Ultimately the RSPCA believes the costs of housing elephants properly in zoos in Europe are prohibitive, and that the money would be better spent protecting elephants in the wild from conflict with humans. For example, keeping elephants in a western zoo is estimated to be 50 times more expensive than conserving them in the wild.

² CITES Appendix 1 elephants.

³ CITES Appendix 11 elephants.

RSPCA recommendations

Until elephants are phased out from European zoos, drastic improvements must be made to the facilities provided in line with the following welfare recommendations:

■ Traditional free contact must be phased out.

The welfare benefits to elephants of traditional free contact have not been proven superior to those in protected contact⁴, and traditional free contact is a much more dangerous system for keepers. Furthermore, traditional free contact is based on a theory of dominance that is difficult to support scientifically. It can only be phased out alongside a dramatic improvement in facilities, and a protected contact system adopted instead.

Only skilled handlers should be used, who have a genuine appreciation of the psychological and physical needs of elephants, an understanding of their natural lifestyles and a deep concern for their welfare.

■ Minimum, substantial welfare recommendations must be implemented.

The RSPCA believes there is sufficient evidence to suggest that improvements in some aspects of husbandry are likely to improve zoo elephant welfare to some degree. The following minimum husbandry measures must be implemented.

- Young males should stay with their mothers until the natural age of dispersal in the wild (10 to 15 years old), unless problems of aggression arise within the group.
- Young females should stay with their mothers for life.
- No animal should be housed singly, especially females.
- Existing females that are pregnant should not be separated from the herd for calving.
- Existing females that are pregnant should not be chained for calving. Attacks by females on new-born calves may

⁴ Protected contact is a management system whereby elephants and keepers do not share the same restricted space, and where training is based on positive reinforcement. The use of ankuses and electric prods is completely disallowed.

indicate an underlying severe welfare concern that must be addressed at source.

- Enrichments – such as foraging devices, pools, rubbing/scratching posts and mud wallows – should be added to indoor and outdoor enclosures. They should be upgraded and maintained.
- Elephants should not be chained except for extremely brief periods where absolutely necessary, for example for health reasons. But the need, for example, to chain elephants in order to treat their feet should indicate zoos' failure to provide proper conditions and husbandry.
- Heated rubber flooring that drains easily should be provided in all indoor enclosures.
- Elephants must not be housed indoors for more than a few hours a day, unless there is sufficient space indoors for them to spend longer. Elephants must be able to have a good quality of life whatever the weather.
- Indoor space allowances should be at least equivalent to the AZA and EAZA minimum requirements for outdoor space.
- The RSPCA believes AZA and EAZA recommendations are inadequate and outdoor space allowances must be significantly increased.
- Diets must meet the recommendations by de Regt et al.⁵
- All forms of breaking must be discontinued⁶.
- Fear, pain and other aversive stimuli, particularly in free contact, must not be used to manage elephants. Only keepers of appropriate attitude (see above) should be employed.

Every possible effort should be made to monitor zoo elephants' welfare humanely and scientifically. The implementation of these recommendations should be monitored so any necessary improvements can be made.

⁵ Appendix 11 in *A review of the welfare of zoo elephants in Europe*, Clubb R and Mason G, 2002.

⁶ Chapter 6, Clubb and Mason.

Conclusions

The RSPCA believes, along with Clubb and Mason, that:

'overall... zoo elephants generally experience poor welfare, stemming from stress and/or poor physical health'.

The supposed benefits of conservation, education and research do not outweigh the costs to these animals, which too frequently live shortened lives in unsuitable conditions, and are often subjected to inhumane treatment by handlers.

The RSPCA is not currently convinced that European zoos will be able to reach the high levels of welfare required to keep elephants long term and believes they should immediately phase out their keeping of elephants through ceasing importation and breeding programmes, while making demonstrable improvements to the welfare of their existing elephants.

More information

If you want more detailed information you can view the RSPCA report *A Review of the Welfare of Elephants in Europe* on the RSPCA website at www.rspca.org.uk.



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