

# Innocent Prisoner

The Plight of Elephants Kept in Solitary Confinement in Europe





**2013**

Cover Photo

Top: ©Daily Mail. Hand of Desperation – Bill Travers and Virginia McKenna with *Pole Pole* at London Zoo, 1983.

Bottom: ©BFF. Hand of Hope? – Virginia McKenna with *Twiggy* at Belgrade Zoo, 2013

## Foreword

Although what follows here is a 'report', what some might regard as a dry presentation of facts, figures, dates and statistics, it is far more than that.

*Innocent Prisoner* is about elephants – sensitive, emotional, social, family animals – and it has a particularly special significance for me.

Thirty years ago this month, a teenage African elephant was 'put to sleep' at London Zoo. Her name was *Pole Pole* and my late husband Bill Travers and I had met her in 1968 when she joined us in Tsavo National Park, Kenya, where we were making a film for young people about elephants, *An Elephant Called Slowly*.

*Pole Pole* had been torn from her wild family as a two year old – she was destined for London Zoo, as a gift from the then Kenyan Government.

Filming over, we asked the authorities if we could buy her and give her to Senior Game Warden, David Sheldrick, and his wife Daphne. Our request was granted but we were told that another little elephant would have to be caught. One way or another, the Government's promise to the Zoo would be honoured.

Unthinkable.

*Pole Pole* came to London Zoo.

Fifteen years later, on October 17<sup>th</sup> 1983, she was put down.

In the 30 years that have elapsed, many things have changed. In many ways the world is unrecognisable. However, it was, perhaps, too much to expect that there would be no more elephants in captivity, although that was and remains our aim. But surely it is not too much to hope that keeping *solitary* elephants in zoos or circuses would belong to a darker, less aware, less thoughtful and compassionate era. Alas, that is not the reality.

In Europe alone there are over 40 solitary elephants in zoos, circuses and other captive situations. One female has been alone for 40 years.

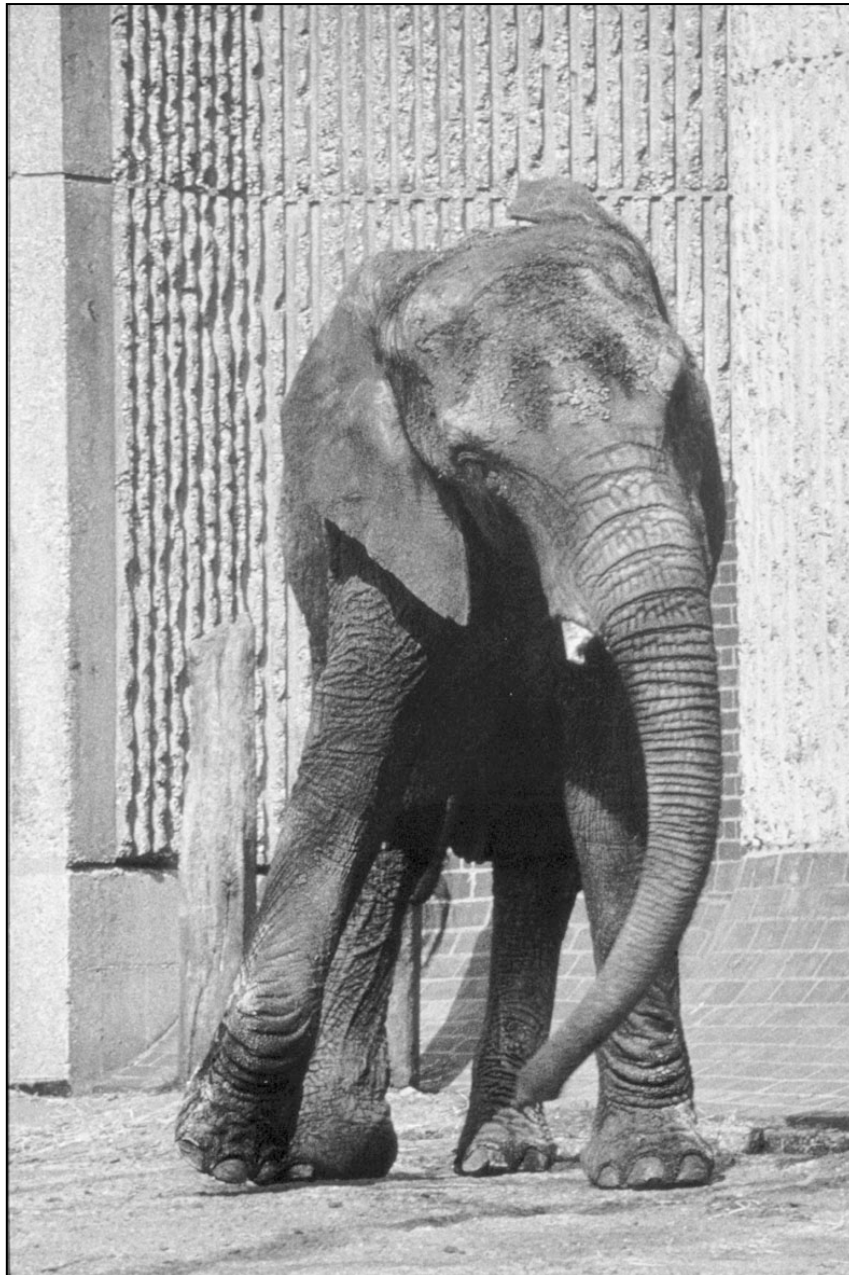
We know and understand so much more about the nature and behaviour of elephants than we did 30 years ago. Thanks to the incredible and invaluable work done by people studying them in the wild – including Cynthia Moss, Daphne Sheldrick and Joyce Poole - we know they are family animals, protecting and caring for young and old for as long as they live, and mourning them when they die. To keep an elephant without companions, without purpose, without any opportunity to express natural behaviours is like condemning a human to solitary confinement. But the elephant is innocent, punished for no crime.

I visited one of the elephants featured in this report in September. *Twiggy*, in Belgrade Zoo, is a symbol of all we are fighting to change. She has been alone for nearly 17 years. In my heart, the thought that *Twiggy* could possibly endure a further 25 years in her bleak and hopeless surroundings is as much of a tragedy as the fact that *Pole Pole* died when she was just a teenager.

That is why I hope this report, *Innocent Prisoner*, inspires us all to bring to an humane and compassionate end a practice that could and should have ceased, long, long ago.

**Virginia McKenna OBE**

**October 2013**



This report is dedicated to the memory of *Pole Pole*, the last African elephant at London Zoo who died too young, too far from home and alone

## Introduction

Elephants: supremely complex, social animals, whose natural biology and behaviour is based on living within and as part of closely-bonded matriarchal herds.

In the wild, elephants face threats including poaching, loss of habitat and human/elephant conflict, but captivity is far from the safe, secure environment one might imagine.

All elephants in captivity risk physical ailments such as lameness and obesity. Their mental state, in all likelihood affected by the deprived social circumstances they are forced to endure, can deteriorate and they may develop stereotypic behaviour. Few reach old age and records indicate that captive breeding does not even replace the number of elephants dying in captivity.

It seems clear to me that life in zoos or circuses can in no real sense replicate the life for which elephants have evolved. Everything is a compromise: from what the elephants eat, to how far they move, to with whom they interact.

The Born Free Foundation has long been concerned with the plight of elephants in captivity across the globe but at a time when many of us recall the tragedy, 30 years ago, of *Pole Pole's* premature death at London Zoo, the realisation that dozens of elephants continue to be **kept alone** in zoos and circuses serves as a stark reminder of how, in some respects, the world remains unchanged and unmoved.

The number of solitary elephants is proof - if proof were needed - that the current system of keeping elephants in captivity is broken.

There are a great many reasons, explanations and excuses offered as to why captive elephants may end up isolated and alone in solitude: disease, behavioural problems, lack of suitable companions or facilities in which to house them. But it is an inconvenient truth that **wild elephants, particularly females, do not live their lives alone**, and that every single one of the elephants in this report is a victim of a captive system that has let each and every one of them down.

And what about circuses? While zoos may try to convince themselves - and an increasingly sceptical public - that they know how to keep elephants (despite mounting evidence to the contrary), how can we possibly justify subjecting these amazing creatures to life on the road as part of a travelling circus?

So, what's to be done? It may be that, in some cases, all we can do is to try and make the life of the animal concerned as tolerable as we can. The damage caused by captivity may be too profound.

But we can chart a different course for the future. We can accept the fact that elephants are profoundly unsuited to life in zoos and circuses. We can end attempts to breed elephants in captivity, attempts that all too often result in distress, trauma and failure. We can call a halt to all

imports of elephants from the wild and, at a stroke, ensure, at least, that no more are subjected to the deprivations of captivity. Where possible, we can bring solitary elephants together, giving them the opportunity to share the companionship they crave.

Personally, I dearly wish that we could rescue all of the elephants living alone and offer them the opportunity to live out their lives in a place of sanctuary, but without a change in attitudes, a willingness by zoos and circuses to relinquish their animals, and without the very significant resources needed to create and maintain a high quality 'care-for-life' elephant sanctuary, that objective will remain, for the moment, a dream.

So, I wonder what the next thirty years will hold?

A future where we abandon the concept of confining elephants (and so many other species) for our so-called education and entertainment? A future where we deliver on our obligations to protect elephants in the wild, along with the environments they and the rest of life on earth depend on for their survival?

Or more of the same...

One thing is clear: The choice – and their future – is in our hands.

**Will Travers OBE**

**CEO, Born Free Foundation**

## The Last Thirty Years for Captive Elephants

Since the death of *Pole Pole* in 1983, what has changed for elephants in captivity? In the intervening thirty years, there have been highs and lows, successes and failures.

### Key landmarks for captive elephants since 1983:

- 1984 Zoo Check (later the Born Free Foundation) founded.
- 1984 Zoo Licensing Act 1981 comes into force in UK, requiring licensing and inspection of zoos in Britain.
- 1984 Performing Animal Welfare Society (PAWS) founded in California, USA.
- 1989 African elephants transferred to Appendix I of CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora).
- 1994 *Tyke*, a female African elephant, escapes from Circus International in Honolulu, USA and is shot eighty-six times before dying.
- 1995 Elephant Endotheliotropic Herpesvirus (EEHV) first documented at the National Zoo, USA.
- 1995 The Elephant Sanctuary in Tennessee, USA, founded.
- 1998 Thirty elephants captured from the wild in Botswana, destined for zoos worldwide.
- 2001 Keeper Jim Robson killed by elephant at London Zoo.
- 2001 Last elephants moved from London Zoo to Whipsnade Wild Animal Park.
- 2002 European Zoos Directive 1999/22/EC comes into force.
- 2002 *Review of the Welfare of Zoo Elephants in Europe* by Ros Clubb and Georgia Mason published.
- 2003 Eleven elephants exported from Swaziland to two zoos in the USA.
- 2005 Born Free Foundation and campaign partners prevent the export of the elephant *Veda* to Yerevan Zoo from Bannerghatta National Park, India.
- 2006 Eight elephants exported from Thailand to zoos in Australia.
- 2007 The Global Federation of Animal Sanctuaries (GFAS) is established.
- 2008 Research paper on compromised survivorship in zoo elephants published in esteemed scientific journal *Science*.
- 2008 *The Welfare, Housing and Husbandry of Elephants in UK Zoos* by Moira Harris, Stephen Harris and Chris Sherwin published
- 2009 India introduces ban on elephants in zoos.

- 2011 The Association of Zoos and Aquariums (AZA) in the USA introduces policy of Protected Contact, separating keepers and elephants in all accredited facilities.
- 2011 *Anne*, the last circus elephant in Britain, retires to Longleat Safari Park.
- 2012 *Secretary of State's Standards of Modern Zoo Practice* updated to include specific requirements for elephants in British zoos.



## Solitary Elephants – the Situation in Europe

*‘The affinity for gregariousness – being with other elephants – is a basic elephant “need”’*  
Lee & Moss (2009)

Under natural conditions female elephants will spend their lives in contact with and living alongside other female elephants and their offspring, in closely bonded matriarchal groups (Annexe I). There is also increasing evidence that male elephants, rather than living their lives alone after reaching their early teens, as once thought, regularly interact with groups of females and form bachelor groups with other males (Annexe II).

Various minimum husbandry and welfare guidelines for captive elephants have been developed, particularly by national Governments (e.g. UK) and zoo associations. These appear to recognise, at least in part, the need for elephants to have social contact with other elephants. For example, the guidelines issued by the British and Irish Association of Zoos and Aquariums (BIAZA) state that zoos *“must establish stable, female groups, preferably of related animals in order to replicate the wild state. Thus zoos must strive to keep a minimum group size of four compatible cows older than two years”*. Furthermore they state that *“it is not acceptable to keep bulls in physical and social isolation until required for breeding”* (although concessions are made for housing males indoors and for “difficult” bulls or those in musth (Annexe II) (BIAZA 2010).

In a study published in 2009, one-fifth of all the elephants held in 194 zoos around the world lived either alone or with only one other elephant. The majority of female groups consist of fewer than four individuals. Approximately 48% of all elephants in zoos were kept in social groups of 5 or fewer animals.

Across Europe, there may be as many as 668 elephants living in captivity in zoos, circuses and in private hands (Annexe III). However, accurate, comprehensive records of the number of elephants in zoos, circuses and private facilities do not exist. Zoo records, for example, are limited to those individuals included in coordinated breeding programmes, and may not be publicly available, whilst circuses may frequently move between one country and another and exchange animals regularly. Consequently, it is very difficult to get a complete picture of the overall situation and of each elephant’s identity and life history. In this report, we have primarily used the global database on elephants available online at [www.elephant.se](http://www.elephant.se), and we are grateful to the website’s coordinator for making the information publicly available.

We believe that in Europe there are currently at least 43 elephants living alone in zoos, circuses and other captive facilities. In all likelihood, this figure is an underestimate, as the transient nature of circuses makes it near impossible to keep track of elephants in circuses, and the figure does not include cases where a facility may have more than one elephant but houses at least one elephant separately.

Of these 43 elephants, it appears that 22 are currently housed in zoos, 20 are travelling with circuses and 1 is housed at private premises (Table 1). On this basis perhaps as many as 15% of all the female elephants in European circuses and 5% of those in European zoos are kept alone (see Annexe III).

Evidence suggests that solitary elephants can be found in at least 18 European countries, from the United Kingdom to Serbia; from Italy to Armenia. It appears that Germany has the most solitary elephants with at least 6 in circuses and 1 in a zoo.

Country	African Elephants			Asian Elephants		
	Zoo	Circus	Other	Zoo	Circus	Other
Armenia				1.0		
Austria				0.1		
Belgium	0.1					
Bulgaria				0.1		
Croatia				0.1	0.1	
Czech Republic				0.1	0.2	
France	0.1	0.3			0.1	
Germany	0.1	1.2			0.3	
Hungary					0.2	
Italy				0.2	0.3	
Netherlands		0.1				
Poland				1.1		
Romania				0.1		
Serbia				0.2		
Slovenia				0.1		
Spain				0.2	0.1	
UK	0.1			0.1		0.1
Ukraine				1.1		
<b>TOTAL</b>	<b>4 (0.4)</b>	<b>7 (1.6)</b>	<b>0 (0.0)</b>	<b>18 (3.15)</b>	<b>13 (0.13)</b>	<b>1 (0.1)</b>

Table 1: Numbers of single elephants at facilities across Europe (1.1 = 1 male, 1 female). Information from [www.elephant.se](http://www.elephant.se), June 2013

Based on available information, we found that solitary elephants kept in European zoos had been moved on average 3 times, with one elephant being relocated 8 times. It appears that a proportion of the solitary elephants have been allocated an EEP (European Endangered Species Breeding Programme) number which, in theory, implies some involvement of the EEP Coordinator in determining how often the elephants are moved and where they live.

It appears that, on average, those elephants currently held in solitary had not had a companion for over 11 years. Records suggest that one female Asian elephant, *Flavia*, held at Parque Zoologico de Cordoba in Spain, has been alone for the longest period having been kept without companionship since 1973, a total of 40 years.

What is striking about the elephants listed in Table 1 and in the Case Studies (p.8-14) included in this report, is that they are not all old elephants, nor are they all the solitary survivors of previous groups. They are also not predominantly male, as might be anticipated given the particular challenges associated with holding bull elephants. The oldest solitary elephant is *Anne* (see below), while the youngest was born in 2005. At least 4 of the solitary elephants were born in captivity and at least 6 were born after the death of *Pole Pole* in 1983.

Since the beginning of our investigations into the plight of solitary elephants which started in June 2013, at least 1 solitary elephant in Europe has died (*Madi* p.14).

There are reasons, some of which are entirely understandable and legitimate given the prevailing conditions in European captive facilities, as to why an elephant might be housed alone. Age or ill-health may prevent movement to another facility; infectious disease or behavioural problems can prevent

introduction to new animals etc. For example, *Anne* is currently housed at Longleat Safari Park, UK, having been relocated there as an emergency response following the exposé of her treatment and abuse at a circus winter quarters in 2011. Nevertheless, keeping such a social species in solitary confinement invariably risks compromising the animals' welfare, and any facility keeping an elephant alone is denying the animal's basic need for companionship.

The following pages outline six individual Case Studies that highlight the tragic histories and specific problems faced by some of Europe's 40 or more solitary elephants.

### **References and Further Reading:**

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Rees, PA (2009). The sizes of elephant groups in zoos: implications for elephant welfare. Journal of Applied Animal Welfare Science 12: 44-60

## **CASE STUDY 1: Twiggy**

**Species: Asian elephant (*Elephas maximus*)**

**Sex: Female**

**Born: 1966, Asia**

**Current Location:  
Belgrade Zoo, Serbia**



Throughout her life, *Twiggy* (also known as *Susan*) has been frequently moved between facilities, spending time in a total of seven separate locations, of which five were in the UK. After her initial capture from the wild, she was taken to Wellingborough Zoo, UK, in 1967 where she was kept for a year before being moved to Flamingo Land, UK. In 1969 she was moved to Cricket St. Thomas Wildlife Park, UK, where it is believed that she may have been housed with another elephant *Chicky* for two years. *Twiggy* was then transferred to Belle Vue Zoological Gardens, UK, in 1975. A year later, in 1976, she was sent to Glasgow Zoo but was back at Belle Vue Zoological Gardens within a year as Glasgow Zoo was reportedly unable to manage her. So, in a 10 year period, *Twiggy* moved six times between zoos in the UK.

In 1977 she was relocated from Belle Vue to Amersfoort Zoo in the Netherlands where she stayed until 1990 when she was moved to her current location in Belgrade, Serbia. When *Twiggy* arrived at Belgrade Zoo there was another elephant living there, a wild-caught male called *Boy* who had arrived in 1975 from a circus. Unfortunately *Boy* died in 1997 at the age of 27. *Twiggy* has been alone at Belgrade Zoo ever since.

*Twiggy* has a history of being aggressive towards her keepers. It is reported that she attacked keepers in the UK and the Netherlands. In 2010, a man was attacked and seriously injured by *Twiggy* as he rescued his grandchild who had managed to climb into the enclosure at Belgrade Zoo.

Investigators from the Born Free Foundation visited *Twiggy* in September 2013, and found that she is still housed alone in a small grassed but otherwise bare paddock, with access to an indoor stall with a concrete

floor. Her enclosure consists of a flat, grassed area without any trees, structures or enrichment (scratching posts, mud wallow, dust bath, browse, pool, etc). The enclosure is surrounded by a concrete moat which acts as a barrier between the elephant and visitors. Such moats are considered to be dangerous to elephants as they present a risk of injury or death were the elephant to fall in, and both BIAZA (the British and Irish Associations of Zoos and Aquariums) and AZA (the Association of Zoos and Aquariums) recommend that dry moats are no longer used to contain elephants.



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## **CASE STUDY 2: Tania**

**Species: Asian elephant (*Elephas maximus*)**

**Sex: Female.**

**Born: 1975, Asia**

**Current Location: Targu Mures Zoo, Romania**



©Alice Ionescu 2013

After being caught in the wild in the 1970s, *Tania* was imported to Europe and was housed alone in a small enclosure at Plaisance du Touch Zoo, France, until 2004. Although we do not know the exact date of arrival, we estimate that she was alone at the zoo for at least 24 years. In 2004 *Tania* was transferred to a newly-opened zoo called Terra Natura in Benidorm, Spain. Here she had access to other elephants at last and, despite her years in isolation, she was apparently able to form bonds with two females, *Petita* and *Khaing Soe Soe*, who also arrived at the park in 2004. Unfortunately as a result of financial problems, Terra Natura decided to relocate some elephants in 2009 and *Tania* was transferred to La Barben Zoo in France.

La Barben Zoo already kept a female Asian elephant called *Dora*. Unfortunately all efforts to introduce the two elephants failed and, after two years there, *Tania* was relocated in 2011 to Parco Faunistico Le Cornelle in Bergamo, Italy. This park was already home to another Asian female called *Rupa* but efforts to introduce them were, once more, unsuccessful.

Since her arrival in Romania in 2012, *Tania* has generated a lot of interest amongst members of the public who are concerned that she is being kept alone. Numerous petitions have been produced, one gathering nearly 68,000 signatures calling for *Tania* to be sent to a sanctuary. Targu Mures Zoo has made it clear that it would prefer to keep *Tania* and find her a suitable companion rather than relocate her to another facility. Modest improvements have been made to her enclosure and she now has access to a larger outdoor area – dependent on the season – but she remains on her own.

### **CASE STUDY 3: Lumni**

**Species: African elephant (*Loxodonta africana*)**

**Sex: Female**

**Born: 1982, Africa**

**Current Location: La Teste Bassin D’Arcachon Zoo, France**



© BFF 2013

After being caught from the wild in the early 1980s, *Lumni* travelled around Europe with a circus called Amedeo Folco. During her time with the circus, her left hind leg was damaged, possibly broken. It is likely that *Lumni* failed to receive treatment to completely heal the injury and she has been left with a pronounced bend in her leg. Because of this deformity, she was unable to perform in the circus and was moved to Olmense Zoo in Belgium in May 2009. Within 5 months she was moved again, this time to Parco Faunistico Le Cornelle, Italy. It was reported that she was moved because she was being kept alone at Olmense Zoo. In 2010, it was decided that she should be moved to La Teste Bassin D’Arcachon Zoo, France, to join a male African elephant called *Max*. Prior to *Lumni*’s arrival, *Max* had been on his own at the zoo for four years. Like *Lumni*, his left hind leg was also disabled and he had also spent time in a circus before his arrival at the park in 2007. Unfortunately *Max* collapsed in April 2011 and had to be euthanased. *Lumni* has been alone there ever since.

Investigators from the Born Free Foundation visited *Lumni* in September 2013. She is housed in a sparse enclosure, covered in patchy grass. There is a small water trough in which she is unable to immerse herself, no trees inside the enclosure and no obvious signs of environmental enrichment. Her indoor enclosure is a small barn which, at the time of our visit, was not accessible to *Lumni*.

## **CASE STUDY 4: Valli**

**Species: Asian elephant (*Elephas maximus*)**

**Sex: Female**

**Born: 1980, Sri Lanka**

**Current Location:  
Skanda Vale  
Monastery; Wales**



*Valli* was found in the wild as a baby and was taken to the Pinnawala Elephant Orphanage in Sri Lanka. In 1981 she was gifted to Skanda Vale Monastery by the then Sri Lankan President J.R. Jayewardene and transported to the UK. Attempts to encourage the Monastery to relocate *Valli* to live with other elephants have been rejected by the community members at Skanda Vale who seem willing to place their monastic needs above the social requirements of *Valli*. She remains alone in South Wales.

Over the years, numerous elephants, many caught from the wild, have been gifted in a similar fashion. In 1968, *Pole Pole* was sent to London zoo as a diplomatic gift from the then Kenyan government. Nearly 46 years later, elephants are still being used to 'smooth' inter-governmental relations. In the last year, two elephants were gifted to Japan by President Mahinda Rajapaksa of Sri Lanka. These two elephants, 8 year old Amara and 5 year old Vidura were transferred from the same facility as *Valli*, the Pinnawala Elephant Orphanage which is gaining an unenviable reputation less as a Sanctuary than a tourist trap and export facility for Sri Lanka's elephants.

In 2011, four wild-caught juvenile elephants were shipped from Zimbabwe to two zoos in China. One died shortly afterwards and footage of the one of the suffering elephants in the facilities caused widespread public condemnation, resulting in a future planned shipment of young elephant from Zimbabwe to China being abandoned.

As a result of campaigning by the Born Free Foundation and other organisations, in 2005 India introduced a ban of the use of elephants and other animals as diplomatic gifts (see Case Study 5: Grand, p. 13)



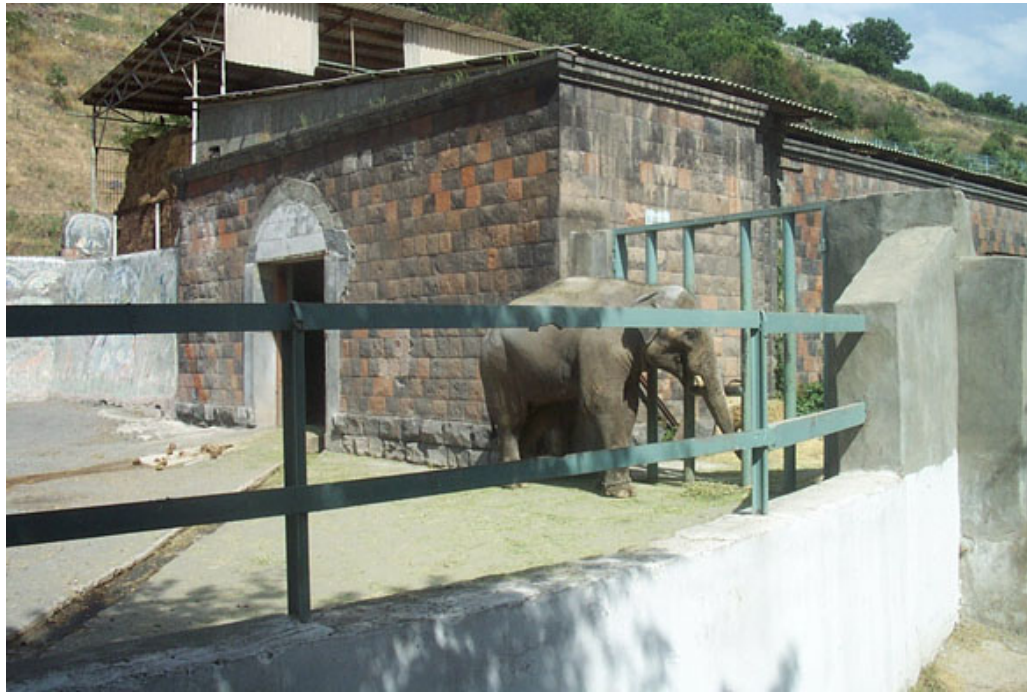
## CASE STUDY 5: Grand

**Species:** Asian elephant (*Elephas maximus*)

**Sex:** Male

**Born:** 1995, Moscow Zoo, Russia

**Current Location:** Yerevan Zoo, Armenia



*Grand* was born at Moscow Zoo in 1995 and was relocated to Yerevan Zoo in 1999 when he was 4 years old. His parents, *Pipita* and *Pamir*, who originated from Vietnam, are still kept at Moscow Zoo along with *Grand's* sister, *Pobeda* who was born to them in 2009.

Over the years Yerevan Zoo has tried unsuccessfully to import other elephants to join *Grand*. In 2005 the Indian Government planned to send a six year old female elephant called *Veda* as a gift to the people of Armenia. The plan to move *Veda* from the Bannerghatta National Park in India to Yerevan Zoo was met with fierce resistance from the Born Free Foundation and others, who were already campaigning for *Grand* to be rehomed to a more suitable facility. Eventually the Indian government (through the intervention of Prime Minister Dr Manmohan Singh) abandoned the move. Just 2 years later, in 2007, it was discovered that plans were being made to send a different female (*Asokamala*) to Armenia from the Pinnawala facility in Sri Lanka. Once again Born Free and others strongly opposed this transfer and a successful case at the Supreme Court prevented the elephant from being moved.

Yerevan Zoo eventually obtained a female elephant called *Candy* as a companion for *Grand*. She was transferred to Yerevan from a Russian circus in 2007 and the Zoo publicised this by holding a 'marriage ceremony' for the two elephants. However, *Candy* died in 2008 at the age of 13, after only a year at the Zoo. *Grand* has been on his own in Yerevan ever since.



Grand's outdoor enclosure, Feb 2005

## CASE STUDY 6: Madi

**Species:** Asian elephant (*Elephas maximus*)

**Sex:** Female

**Born:** 1965, Asia

**Died:** 2013, Estonia



2013

We believe *Madi* spent her entire life in the circus.

Her story highlights the problems facing elephants and other performing animals in circuses. It is very difficult to get an accurate picture of *Madi's* life, as there is no legal requirement to keep comprehensive public records of any kind. We found that those records available are often incorrect and are further confused because circuses regularly exchange elephants. What we have been able to determine is the following:

*Madi* was a 48 year old Asian elephant who sadly died on the 7<sup>th</sup> of June 2013. At the time of her death she was travelling alone with a German circus owned by the brother of her owner. During her lifetime she had been used by at least three other circuses.

*Madi's* death made headlines worldwide as footage was circulated of her handler standing and jumping on her while she was submerged in a river. Earlier footage taken a few weeks before her death indicated that she was suffering from a form of trunk paralysis, a condition which causes the trunk to lose its prehensile abilities. This can hinder the elephant when eating and drinking and prevent breathing when submerged in water. Sadly it appears that *Madi* drowned as she was unable to raise her trunk above the surface of the water. Unfortunately a necropsy was not carried out after her death so we are unable to confirm the exact cause of death.



Handler on top of Madi, June 2013



Madi after being pulled from the water, June 2013

## **Conclusion and Recommendations**

### **The Born Free Foundation is calling for:**

- Significantly improved welfare of elephants currently housed alone, through relocation wherever possible to facilities that can offer opportunities for social contact with other elephants. Where that is genuinely not possible, provision of companionship (in adjoining enclosures if introduction is not possible) and/or additional enrichment and better housing conditions.
- An immediate end to the practice of separating females from their existing herds, unless lives are at risk.
- Provision of social opportunities for all male elephants and an end to keeping males permanently alone.
- National laws amended to reflect recommended minimum group sizes, as indicated by BIAZA.
- Immediate undertakings by zoos to increase the space available to elephants.
- The introduction of legislation to end as swiftly as possible the continued use of elephants in circuses (as is already the case within Europe in Greece, Austria and Croatia and will be the case in England in 2015.)
- The establishment of a genuine elephant sanctuary in Europe, together with long-term funding.
- An immediate end to imports of elephants from the wild.
- A moratorium on the breeding of elephants in captivity in Europe.
- The creation of a publicly-accessible, transparent and up-to-date Europe-wide database concerning all elephants currently held in zoos, circuses and in private hands, including data on any transfers between facilities.
- An immediate end to the use of chaining/tethering as a means of restraining elephants unless strictly for very short periods of time for the purposes of treatment under the instruction of a suitably-qualified veterinarian

**Born Free continues to adhere to its long-standing policy which would see the phasing-out of the keeping of elephants in zoos and circuses and by private individuals throughout Europe over the next 30 years, thereby ensuring that the keeping of elephants in solitary can never happen again.**

## Annexe I

### Elephants in the Wild

There are two species of elephant: African (*Loxodonta africana*) and Asian (*Elephas maximus*). There is debate over whether African elephants actually comprise two separate species, but this is not universally agreed and for the purpose of this report we will treat African elephants as one species.

African elephants are listed on the IUCN Red List of Threatened Species™ as Vulnerable, meaning that the population is facing the risk of extinction in the wild in the near future. Asian elephants are listed as Endangered and are at a very high risk of extinction.

Elephants are the largest living terrestrial mammal and live across sub-Saharan Africa, South Asia and South-East Asia. Elephants live in tropical regions; savannahs, forests, rainforests, wet marshes, thornbush and semi-desert scrub of Africa; and grasslands and forests of Asia. Home ranges in the wild for both species vary from tens to thousands of km<sup>2</sup>, depending on local climates and resource availability. Wild elephants may travel anywhere between 1km and 30km a day, spending 60% to 80% of their time foraging for food and water. Their bodies are specially adapted to cope with their natural environment; their feet have evolved to support their weight and enable them to walk efficiently over long distances on rough surfaces. The foot plays a huge part in supporting the elephant's body weight. There is little flexibility in the limb joints which is an adaptation to improve the energy efficiency of locomotion. An elephant's large ears can help to regulate body temperature in hot climates, the extensive surface area is used to cool blood which is then pumped around the elephant's body.

With large brains and advanced thought processes, elephants have tool-using abilities similar to those of great apes, the ability to solve discrimination tasks quickly, and long memories. Elephants are highly intelligent and have the largest social network of any mammal studied other than humans.

The bonded, matriarchal group, comprising females and their offspring, is the keystone of elephant society. Females live in stable, family groups of about 4-12 individuals lead by a matriarch, within which they remain throughout their lifetime. Smaller groups may break off to search for resources in a form of fission-fusion, but will re-join the main herd when possible. Despite the flexibility of the group, elephants maintain strong social bonds throughout their lives. These bonds start from birth with the elephant calf's relationship with its mother. This mother-offspring bond and the protection of a family group helps to provide vital stability for the development of the calf. Female calves learn everything from the other members of the herd, including how to forage, socialise and how to raise young of their own. 'Allomothering' is very common amongst elephants with young females helping to look after calves and thus learning important skills for the future. Successful breeding females can have a new calf every 4/5 years and there are low levels of infant mortality.

Adult males maintain social bonds with other elephants but are known to spend a greater amount of time on their own in the wild. However, sociality is as important for male calves and juveniles as it is for females and they are more sociable than many believe. Males can stay with their maternal family until around the age of 15. Adolescence is an important social period for African elephant males and there is a larger amount of social interaction between younger and older males. The older males are more tolerant of adolescents and it gives the younger animals the opportunity to learn from the older bulls and observe their behaviour, especially important when the bull is in *musth*.

In the absence of lethal human intervention, wild elephants regularly live up to the age of approximately 65 years. The main causes of death in the wild are drought, direct killing by humans (poaching) and habitat loss/degradation.

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### Social Behaviour in Male Elephants

*'Proximity to older males provides opportunities for males to learn from more experienced individuals.'*

Evans & Harris 2008

There is sufficient and increasing evidence of male elephant social behaviour in the wild to indicate that housing bulls alone for all or most of their life is inappropriate. In recent history, it has been common for zoos to keep male elephants entirely alone as they were assumed to not require the same level of social contact as females. However, recent research has shown that male elephants in the wild engage in social behaviour, regularly interacting with groups of females and forming groups with other males. While male elephants in the wild do live a more solitary life than females, during adolescence they undergo an intense period of learning which is very important to ensure stability as an adult. A study examining adolescence in African elephants found that males between the ages of 10-20 were the most sociable and had a preference for larger social groupings. It is thought that young males benefit from observing and interacting with older males in musth (a state of heightened sexual and aggressive activity). Older bulls are known to be a lot more tolerant of younger males than others. The importance of such interactions was highlighted in the case of a group of orphaned juvenile male African elephants were released in Pilanesberg South Africa. These young males began attacking, mounting and killing rhinoceros. As these juveniles had been orphaned at a young age, they had not learnt normal social behaviour as a result of the absence of older bulls. Once older adult male elephants were introduced to the park, the killings stopped.

Peak breeding age in the wild is between 45-50 years old. Unfortunately, most bulls in captivity do not live long enough to reach this prime breeding age: the youngest African elephant to sire offspring in the EEP was less than 9 years old, and the oldest 29.

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## Annexe III

## Elephants in Captivity in Europe

Country	Total	Circus		Zoo		Other	
		Male	Female	Male	Female	Male	Female
Armenia	1			1			
Austria	10		2	2	6		
Belarus	2		2				
Belgium	24			9	14		
Bulgaria	1				1		
Croatia	8		7		1		
Czech Republic	25		2	3	20		
Denmark	14			3	11		
Estonia	3			1	2		
France	79		22	15	35		2
Georgia	2			1	1		
Germany	199	1	46	35	107		
Hungary	12		2	2	8		
Ireland	5			1	4		
Italy	35		17	2	16		
Netherlands	47		6	15	26		
Poland	19			6	13		
Portugal	9		3	1	5		
Romania	4		3		1		
Serbia	2				2		
Slovak Republic	2				2		
Slovenia	1				1		
Spain	62		12	14	36		
Sweden	9			2	6		
Switzerland	20		9	2	9		
Turkey	5			3	2		
Ukraine	4			2	2		
United Kingdom	64			14	49		1
<b>TOTAL</b>	<b>668</b>	<b>1</b>	<b>133</b>	<b>134</b>	<b>380</b>	<b>0</b>	<b>3</b>

Table 2: Numbers of elephants at facilities across Europe. Information from [www.elephant.se](http://www.elephant.se), June 2013. Totals and numbers may differ due to inconsistencies in the database.

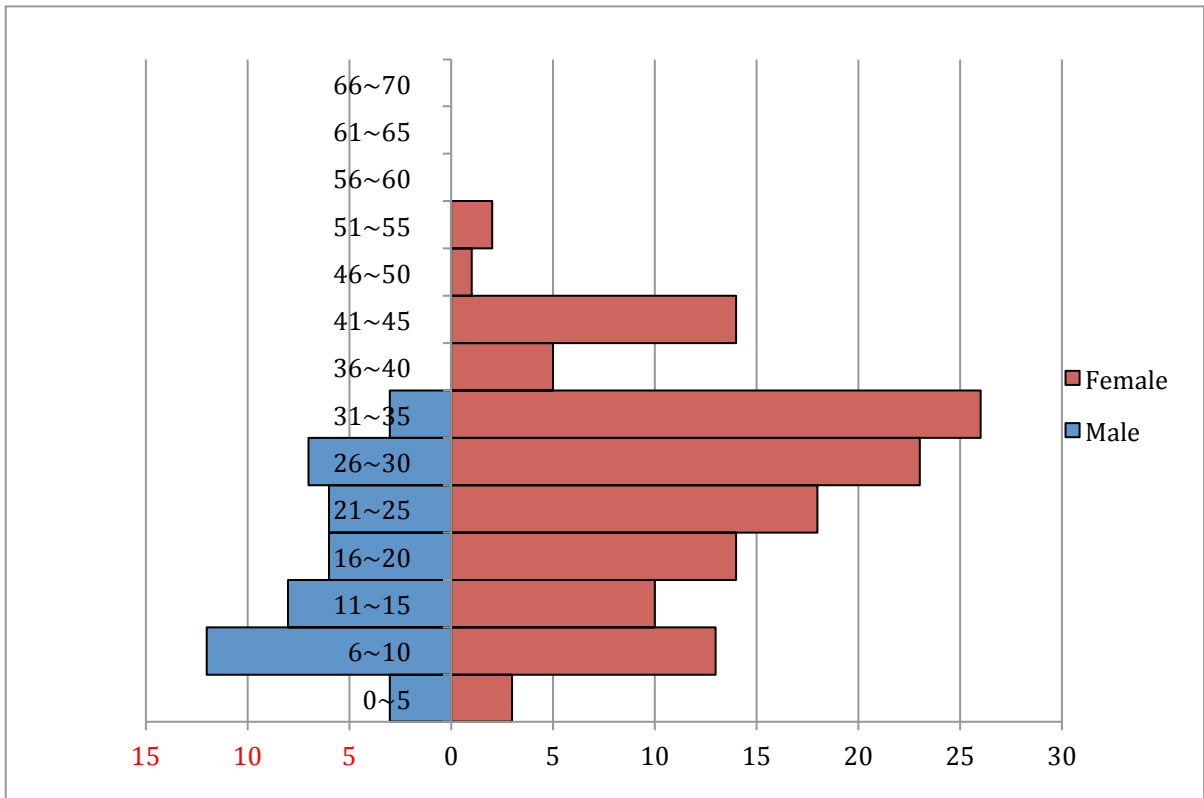


Figure 1. Population pyramid of living African elephants in Europe

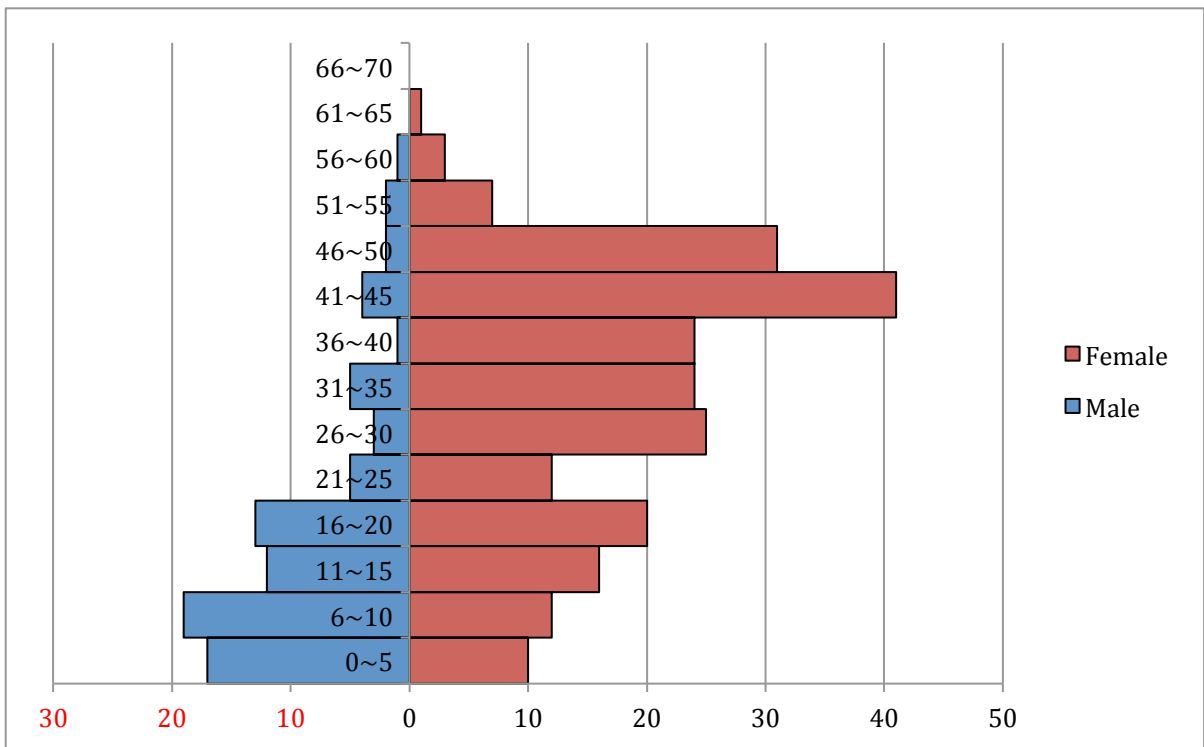


Figure 2: Population pyramid of living Asian elephants in Europe



## Annexe IV

### Elephants in the Circus

Circuses are travelling exhibitions where animals and / or humans perform tricks and displays for the public. In some regions, circuses travel with their animals year-round, while in others they may return to “winter quarters” for some months of the year.

The animal circus, by its very nature, operates in such a way as to facilitate ease of frequent transportation and to ensure day-to-day animal control. Due to their dependency on regular travel, circuses cannot provide sizeable and complex living conditions but instead may subject their animals to extended periods in cramped conditions in transport vehicles; restricted movement due to shackling or chaining; repeated and extended transportation; repeated loading and unloading; inadequate and unnatural social environments; a lack of privacy; and high noise levels.

There may be up to 1000 circuses with wild animals in Europe, and many more worldwide. Estimates put the number of elephants used in circuses in Europe at 134 (see Table 2). Between 1975-2005, 1640 elephants were officially traded worldwide for circus and travelling exhibition purposes; a figure which does not include movement of circus elephants between European Union Member States (UNEP WCMC database). It is estimated that circuses hold 31% of all captive African and Asian elephants.

Some countries have prohibited the use of wild animals including elephants in circuses (e.g. Austria, Costa Rica, Greece); while others currently prohibit the use of some wild animal species but allow elephants (e.g. Denmark, India, Sweden).

#### Transport:

Elephants in circuses are frequently transported between sites: at least every week or two for much of the year. During transport they are confined in small vehicles, often for extended periods of time. Circus elephants have been shown to spend up to 93.2% of the time in transport vehicles where they may demonstrate stereotypic behaviour. Research has shown that circus elephants spend the majority of their time during transport standing, rather than lying down to rest. This may complicate existing foot and joint problems.

Loading and unloading at the destination may be very stressful and other factors, such as access to food and water, the opportunity for rest, and changes in climate can present challenges to elephant welfare during transport.

#### Performance:

Elephants may be forced to perform tricks involving unnatural body postures. These repeated movements can cause joint and ligament damage.

The effect of the presence of visitors and the noise and lights of life in the circus has not been well-studied, but evidence from zoos indicates that such stimuli may negatively impact the welfare of wild animals.

#### Housing:

*“Stereotypies tend to increase in frequency with increasing restraint of movement and with more barren environments.”*

lossa et al. (2009)

When not in a transport vehicle, circus elephants may be chained or shackled or given access to a temporary pen (often with electric fencing). It is

generally not possible for circuses to offer large, complex areas to their elephants.

#### Training:

Training of circus elephants is not well-documented, but there is certainly the suggestion that it may involve negative reinforcement.

Elephants may be trained or moved through the use of an 'ankus' or elephant hook.

#### Public Risk:

*'Elephants and tigers are the main causes of occupational fatalities for circus workers and zoo keepers in the USA.'*

lossa et al. (2009)

Elephants are large, sometimes unpredictable and can be extremely dangerous. There are numerous reports of escapes of elephants from circuses: in a recent example from September 2013, a female African elephant named Tania travelling with the French circus, Cirque D'Europe, escaped from her enclosure and killed an 84 year old man.

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## Problems Facing Captive Elephants

*'Elephants in zoos and circuses are plagued by a host of physical and psychological ailments that are not observed among their free-living counterparts.'*

Poole & Granli (2009)

### Obesity

Elephants are adapted to travel over long distances, which is impossible to replicate in a restricted captive environment. Relatively small enclosures limit the animals' opportunity to exercise, which may result in weight gain. With a large proportion of their day in the wild spent actively foraging, elephants have evolved to eat a wide and varied diet. Captive elephants are subject to a relatively limited and controlled diet, dependent on provisioning by keepers. Unlike their wild counterparts, food may be easily accessible and require little energy or time to process. This, coupled with limited physical exercise, contributes to the prevalence of obesity in captive populations.

Excess weight bearing down on the joints and feet can damage leg ligaments as well as contribute to arthritis, which may cause significant pain.

Obesity may be linked to reproductive problems. Studies suggest that excess weight causes hormone imbalances that may reduce reproductive cycling and thus affect the chances of conception. Overweight elephants may also be at a higher risk of having stillbirths.

Elephants born in zoos were found to be heavier at birth than calves born in Asian timber camps (where females are impregnated by wild males), this may be associated with increased risk of future health problems and may contribute to premature death in adults.

In a study of elephants in UK zoos, 75% were categorised as 'overweight' or 'very overweight';

and in a study of elephants in Association of Zoos and Aquariums (AZA) zoos across the United States, 74% were categorised as overweight.

### Foot and Joint Health

*'Pathological conditions of the elephant foot due to lack of mobility from inadequate space, development of stereotypic behaviours and inappropriate substrate are unique to captivity.'*

Kaufman & Martin (2009)

Elephant's feet are adapted to conditions encountered in the wild. However, such specialised anatomy can be problematic when faced with conditions encountered in captivity.

Until recently, most indoor zoo enclosures used concrete as the main substrate, which is entirely dissimilar to anything elephants would encounter in the wild. Coupled with reduced mobility due to small enclosure sizes, captive elephants' feet may wear unnaturally and unevenly. Also the pads of the feet and the nails are prone to cracking and becoming overgrown in captivity. These problems cause improper foot posture which consequently has a negative effect on the legs and spine and can result in arthritis or other joint problems.

Stereotypic behaviour may also contribute to foot problems (see Stereotypic behaviour below).

A study concerning the welfare of zoo elephants in the UK found that 80% of elephants had foot problems and 23% had an obvious limp or were severely lame.

### Skin

An elephant's skin is very sensitive to the sun and in the wild individuals will use mud or a dust bath

to protect the skin. This also helps to keep the skin in good condition, which is important in regulating body temperature and maintaining skin flexibility. Since captive elephants may have little or no access to dust baths or mud wallows, they are unable to display their natural behaviour and skin problems may arise as a result.

Prolonged periods of time in indoor enclosures '*creates the opportunity for pathological skin conditions not seen in the wild*' (Kaufman & Martin 2009). Captive elephants living in countries with colder climates may have to spend longer periods of time indoors if it is too cold to be outside. The enclosure may be heated, which can dry out the skin. Standing or lying in the same space where an animal urinates and defecates may also cause further skin irritation.

#### Tuberculosis

Tuberculosis in elephants is generally caused by *Mycobacterium tuberculosis* and *M. bovis*, species of pathogenic bacteria. The disease, which causes weakness, weight loss, and coughing, is spread by way of airborne infected droplets and appears to be an increasing problem in captivity. In recent years, tuberculosis has evolved into much more deadly drug resistant strains.

In 2005, an outbreak of tuberculosis involving five elephants was reported at a zoo in Sweden. The disease appeared to have been brought into the zoo via two elephants that had previously been used in travelling circuses.

Tuberculosis in elephants is particularly significant as the disease can be transmitted to and from humans.

#### EEHV

Endotheliotropic elephant herpes virus (EEHV) is an infectious type of herpes virus found only in elephants. It is a complex disease and numerous forms of the virus have been discovered since the index case at the Smithsonian National Zoo in the USA in 1995. Symptoms include swelling of the

head and trunk, ulceration of the mouth and internal haemorrhaging. It seems that young elephants between 2-8 years are particularly susceptible to death from EEHV, and it is a significant cause of mortality. There is no known cure, but in a minority of cases treatment with antiviral drugs has been successful. The virus may be present in many elephants without any symptoms being visible. Stress is named as a significant factor in triggering the disease – including as a result of weaning, birth, movement of animals, introduction of new animals, dominance issues in the group. Since 2000, EEHV has been implicated in the deaths of at least 16 elephants in zoos and circuses in Europe, including 10 in zoos in the UK.

#### Mortality and Longevity

A study in 2008 found that Asian elephants have a median lifespan of 18.9 years in zoos compared to 41.7 years in Asian timber camps. African elephants have a median lifespan of 16.9 years in zoos and 56 years in the wild.

Heart attacks and other circulatory problems are the leading cause of captive elephant deaths, responsible for 11.4%-20.0% of deaths in non-infants.

It is thought that stress and/or obesity are largely to blame for the decreased survivorship of elephants in zoos compared to wild populations in range states.

#### Stereotypic behaviour

Stereotypic behaviour is repetitive, unvarying behaviour with no obvious goal or function. Stereotypic behaviour is particularly common when conditions in captivity are barren and without sufficient environmental complexity, or when certain behavioural needs (such as feeding) are frustrated. Stereotypic behaviour is not generally seen in healthy animals in the wild, and is considered to be an indicator of past or present welfare problems.

In captive elephants, stereotypic behaviour can include behaviours such as swaying, weaving from side to side, head bobbing, trunk swinging, tail flicking, or pacing the same route. More than half of elephants in a study of UK zoos displayed stereotypic behaviour during the daytime. Some individual elephants displayed stereotypical behaviour for up to 60% of a 24 hour period. Almost 50% of the Asian elephants in UK zoos performed stereotypies, while 25% of Africans displayed these behaviours. A recent study of elephants in AZA zoos found that approximately 2/3 of the population exhibited some stereotypic behaviour.

Chaining or shackling of elephants, which may be common in circuses and still in use at some zoos, is associated with higher levels of stereotypic behaviour. All 29 individuals in one study of behaviour in circus elephants displayed stereotypic weaving behaviour.

### Climate

African and Asian elephants have adapted to live in a warm climate. European countries are subject to more variable annual temperatures, which can drop as low as -14°C during the winter months (see Figure 3). Elephants may be confined indoors during cold weather. In a study of elephants in UK zoos, housing in small indoor enclosures was associated with stereotypic behaviour.

Low temperature has also been shown to increase stereotypic behaviour in captive Asian elephants.

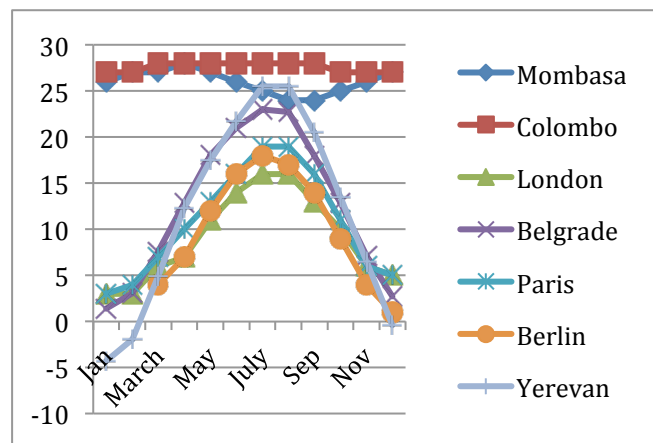


Figure 3: Graph showing variation in average temperature for selected regions with captive elephants compared to examples from elephant range states (Mombasa, Kenya and Colombo, Sri Lanka). Data from [www.weatherbase.com](http://www.weatherbase.com)

### Moving Elephants

In addition to the regular transport endured by elephants in circuses (see Annexe III – Elephants in the Circus) elephants may be moved between zoos, or between zoos and circuses, for several reasons: to participate in the breeding programme; in the event of the closure of a zoo; if there are social problems within the herd etc.

Movement and relocation of elephants between facilities can be stressful: it may involve separation from bonded individuals, lengthy and noisy transportation, arrival in new and strange environment, and introduction to other elephants and new keepers. Studies have found that cortisol levels (an indicator of stress) are higher during relocation, and remain elevated if the elephant is being introduced to others. Elephants may even be kept alone after relocation (see p5-7).

Asian elephants transferred between zoos are at increased risk of dying for up to 4 years after the transfer takes place.

### Reproduction

*'Currently, zoos are net consumers of elephants'*  
Dr. Georgia Mason, University of Guelph, Canada, 2008

Zoo breeding programmes are designed to maintain healthy genetic population and require the co-operation of multiple facilities. In Europe, EAZA manages the European captive elephant population of both species through European Endangered Species Programmes (EEPs), while similar programmes in North America are organised by the AZA.

None of the captive breeding programmes are currently thought to be sustainable, and several sources have suggested that the solution to the poor success in captive breeding may be for imports of elephants from the wild or from timber camps (see Annexe VI: Imports from the Wild).

Elephant females in zoos face numerous problems conceiving and giving birth to live offspring in captivity. In zoos, a female Asian elephant's first pregnancy only has a 42% chance of resulting in the calf surviving to one year old. The rate of infant mortality for African elephants in zoos in North America is approximately 40%.

*“The AfESG is concerned by the poor breeding success and low life expectancy of captive African elephants and does not see any contribution to the effective conservation of the species through captive breeding per se.”* (African Elephant Survival Group 1998)

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There is a high rate of infant mortality, infanticide and abandonment in captive elephants. Suggested causes for these problems include relocations between zoos and removal from the mother at a young age. Recent examples of infanticide include, an elephant mother killing her new born in Halle zoo in Germany, and another new mother in a zoo in China attempting to trample her baby before keepers were able to intervene.

Excess body fat may result in low reproductive rates and may contribute to the high stillbirth rates of Asian elephants.

Females of reproductive age may conceive naturally or in some cases are subjected to Artificial Insemination (AI). AI is associated with a significant excess of male births.

Another major obstacle for the captive breeding programme is the reluctance of adult males to breed. Bulls may be uninterested or unable to engage in normal sexual behaviour possibly due to a lack of socialisation experienced at an early age. Young males in the wild mount each other during play and can observe the older bulls successfully mate with females.

All evidence suggests that females reproduce most effectively when housed in a related group of females (as in the wild) yet zoos continually move elephants between facilities to prevent inbreeding and to maintain genetic diversity

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## Annexe VI

### Imports of Elephants from the Wild

Opinions differ within the zoo industry and beyond as to the wisdom and ethics of importing elephants from the wild. Concerns have been raised that captive breeding programs are currently not sustainable (see Annexe V) and it has been proposed that imports of elephants, even imports from the wild, are necessary to maintain numbers.

The Born Free Foundation firmly believes that there should be no imports of wild elephants into zoos or circuses and this is supported by position statements such as that of the African Elephant Specialist Group:

*Believing there to be no direct benefit for in situ conservation of African elephants, the African Elephant Specialist Group of the IUCN Species Survival Commission does not endorse the removal of African elephants from the wild for any captive use.*

AfESG (2003)

A similar statement relating to Asian elephants was launched in 2012, and currently has been signed by more than 20 international elephant biologists and conservationists.

A survey of elephants in Europe in 2003 showed that 59.5% had been born in the wild and only 38.2% were captive born (2.3% were of an unknown source). Of the elephants in zoos in the UK recorded in 2008, 44.7% had been born in the wild and 50% were born in captivity.

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## Elephant Sanctuaries

The Born Free Foundation considers that a genuine sanctuary for animals should: provide lifetime care for animals in need; not allow breeding; not engage in commercial trade in animals; restrict visitors to guided tours with a *bona fide*, educational component; and meet the highest professional and legislative standards.

Outside of the orphanages and rescue centres in Asia and Africa, there are two notable sanctuaries for elephants that have been relocated from zoos and circuses in the USA:

**The Performing Animal Welfare Society (PAWS)** operates two sanctuaries California for animals from zoos, circuses and the entertainment industry. One of the sanctuaries, ARK 2000 in San Andreas, currently houses five Asian and three African elephants across five habitats on a 2,300 acre site. The elephant habitats at ARK 2000 provide acres of varied terrain, lakes to bathe in, and purpose-built elephant barns equipped with heating and even therapeutic Jacuzzi pools.

**The Elephant Sanctuary in Tennessee** currently houses twelve Asian and two African elephants retired from zoos and circuses in three separate naturally-landscaped habitats across 2,700 acres in Hohenwald, Tennessee. The African elephant habitat is currently 300 acres and the Asian elephant habitat is 2200 acres. To put this into perspective, the whole of London Zoo is 36 acres and could fit into the Asian elephant habitat 61 times.

Maintaining elephants in a sanctuary is a costly undertaking: The Elephant Sanctuary in Tennessee estimates that it costs \$133,000 (approximately £84,000) to care for one elephant annually.

**At this time, there is no genuine sanctuary for elephants in Europe.**

### **Credits and Acknowledgments**

Many thanks to Dr. Rob Atkinson for his advice and assistance.

**Born Free Foundation 2013**

**Charity Reg. No: 1070906**

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