

Elephants in Zoos



A Dead End

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Voice for Animals Humane Society

Introduction

There has been an explosion of knowledge about the natural history of wild animals over the last few decades. This has led to a growing understanding that animals lead complex lives both physically and mentally. The result has been improved husbandry practices and larger enclosures tailored to the individual animals' needs for a number of species held in accredited zoos. However, conditions remain virtually unchanged for captive elephants since modern zoos were first introduced. The results are that elephants suffer greatly both physically and psychologically and their premature deaths are a testament to this.

Voice for Animals has compiled an information package on the current welfare status of captive elephants containing:

1. Scientific research
2. Reports from well respected organizations
3. Official health records
4. Case studies
5. Expert testimonials
6. Videotaped evidence

This information speaks for itself. The vast majority of zoos cannot adequately meet the most basic needs of these complex and intelligent animals. Small, cold climate, under funded zoos such as the Edmonton Valley Zoo is, bluntly, a torture chamber for its lone elephant. We strongly urge the City of Edmonton and the Edmonton Valley Zoo management to accept the Elephant Sanctuary's offer to take Lucy, at no cost to the city, and to make arrangements to move her as soon as possible.

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Solitary Elephants

Lucy is all alone in her enclosure at the Edmonton Valley Zoo since Samantha was sent on a breeding loan to North Carolina Zoo. This unacceptable situation leaves her as the most northerly lone elephant in North America. Leaving a female elephant in long term isolation is inhumane and detrimental to her physical and psychological health. (1)

By nature, elephants are highly social. Females live in tightly knit, stable, family groups for their entire lives. (2). These matriarchal groups include mothers and offspring, grandmothers, aunts and cousins. In addition, in the wild they have a large social network consisting of band groups and clans with as many as 550 members.

Like humans, elephants have a strong social need to touch and be touched. Elephants normally interact with other members of their family or group by smelling and caressing each other with their trunks. A large behavioural repertoire and sophisticated communication are essential aspects in the lives of these intelligent animals.

Keeping Lucy in an isolated state denies her this whole range of natural stimulation and interactions which are absolutely necessary for her well-being.

The Valley Zoo has stated that Lucy doesn't miss being around other elephants since she considers her keepers as her herd. This opinion is unfounded. Nothing in the scientific literature or other sources indicates that people are adequate substitutes for other members of their species or their herd.

At the Elephant Sanctuary Lucy would have the option of forming friendships with anyone of sixteen other elephants there, a far cry from her lonely existence at the VZ.

Recommendations

1. No elephant should be housed singly, especially females. RSPCA (Royal Society for the Protection of Animals, UK) (Index 2)
2. It is inappropriate to keep highly social female elephants singly. CAZA (Canadian Association of Zoos and Aquaria)
3. It is inappropriate to keep females (elephants) as single individuals. AZA (American Zoological Association 2001, US)
4. All animals must be maintained in numbers sufficient to meet their social and behavioural needs. Government of Alberta Standards for Zoos in Alberta.

References

1. Clubb, R. & Mason, G., 2003. Report on the Welfare of Captive Elephants in Europe. RSPCA, University of Oxford, Oxford, UK.
2. Sukumar, R., 1989. The Asian Elephant: Ecology and Management. Cambridge University Press, Cambridge.

Lucy's Health

A fundamental requirement for keeping animals in captivity is that we provide an excellent quality of life. In order to do that we must meet a species' and an individual's physical and psychological needs. We feel we can accomplish this for all animals at the Detroit Zoo, but we can't for the elephants. Elephants in general in captivity live shorter lives than in the wild, do not reproduce well, show numerous physical problems and often display psychological problems. The Detroit Zoo website. On not having elephants at the Detroit Zoo, August, 2005. (Index 6)

The problems mentioned in this excerpt from the Detroit Zoo reflect precisely the health problems that Lucy suffers from. She is currently afflicted with most of the conditions that can be attributed to captivity and confinement in other words; she is suffering both physically and psychologically.

In 2007, Zoocheck Canada Inc. requested and received a copy of Lucy's health records through FOIP. As expected, the records indicate that Lucy has painful, ongoing health concerns such as arthritis, foot abscesses and, since 2004, respiratory problems. These are not acute illnesses but do indicate that she is in considerable pain and that her overall health is deteriorating (1)(2). However, foot abscesses are serious and are known to have caused the death of several elephants.

A few examples illustrate the daily pain Lucy has to endure. These examples are taken from the Valley Zoo Health Records obtained by Zoocheck Canada. (1)

06/03/2002 – Radiograph result: Severe arthritis (degeneration) of right corpus.

By:

17/04/2002 – Front right foot inside toe on top near cuticle, puss, broken abscess.

And a month later:

22/05/2002 – Recheck foot. Curette of feet bleeding today. Removing spongy, smelly tissue, got a lot of puss out today.

According to health records, Lucy's foot abscesses keep recurring. Apparently the veterinarians and zoo staff are unable to get this under control.

References

1. A quick overview of Lucy's health history. Zoocheck Canada. (Index 4)
2. 2002-2007 Health Records – the Valley Zoo. (Available on request)

Elephas maximus maximus (Lucy)

Account # 100003

Birth – May 19, 1975

Sex – Female

Lack of Exercise Leading to Health Problems

Mountains of reports and studies, as well as empirical evidence indicate that lack of exercise causes serious health problems in captive elephants. The Valley Zoo, like every other zoo in North America, does not provide enough space for adequate exercise.

In the wild, the typical home range for an elephant is 150 - 550 sq. km. They travel almost continually, reportedly about 20 out of every 24 hours, ranging 8 - 20 km or more per day.(1) (3)

The half acre elephant enclosure at the VZ is grossly inadequate for Lucy. As well, this small barren enclosure does not encourage her to move about using the space available and consequently she stands still most of the time. Although the zoo staff does take Lucy for daily walks, weather permitting, these are only approximately one hour long. This amount of time is inconsequential when compared to the 20 hrs elephants walk daily in the wild.

Lack of exercise is clearly one of the main factors causing the range of ailments found in captive elephants. Except for infertility (only 2 of 558 females observed in the wild over the age of 10 were infertile) none of the following health problems have been seen in the wild. (2)

These include:

1. Foot disease (including abscesses)
2. Arthritis
3. Weight related diseases
4. Infertility
5. Neurotic behaviour (Index 5, DVD)
6. Heightened aggression

According to her health records, interpreted by a veterinarian from the Elephant Sanctuary, Lucy suffers from so-called captivity related health problems.

In a recent visit to the Valley Zoo, Voice for Animals videotaped 10 minutes of Lucy rocking rhythmically back and forth. She was already rocking when we arrived so we do not know how long this behaviour had been going on. This sign of mental stress and boredom, known as stereotypic behaviour, is unknown in the wild.

References

1. Sukamar, R., 2003. *The Living Elephants Evolutionary Ecology, Behaviour and Conservation*. Oxford University Press.
2. Poole, J., 2005. *Statement regarding space for elephants*. Index 1, p. 7.
3. Poole, J., 2005. *Elephant Exhibit Study: Expert Survey*, Los Angeles Chief Administrator's Office.

Life Expectancy

Many animals have a greater life expectancy in captivity than in the wild for several reasons:

1. Lack of predators
2. Steady food supply
3. Veterinary care and medical intervention
4. Lack of natural disasters

This, however, is not true for elephants. In the wild, elephants have a life expectancy of about 70 years whereas their life expectancy in AZA accredited facilities is just 33 years for African elephants and 35.9 years for Asian elephants. It is unacceptable that elephants should have their lives shortened by half because we choose to keep them captive for our own purposes. (Index 9)

There are a number of reasons for the premature deaths of captive elephants. Below are just few examples. (More examples in Index 1. Pp. 34-44)

1. Tika, Female African Elephant; died at age 24.
Pregnancy complication – dead fetus
Tika died in 2002 from massive infection due to failure to expel dead fetus.
2. Babe, Died in 2001 at age 43.
Colic, Foot Disorders
Babe lethargic, reluctant to walk, trunk limp; stretched back legs as if in pain; gas, loose stool. (Dec. 2000)
3. Gita, Asian elephant; Died in 2006 at age 48.
Complications from Medication
Changes (in blood chemistry) consistent with chronic inflammation, possible chronic liver damage and/or reflecting the chronic administration of anti-inflammatory drugs, antibiotics and anti-fungal drugs. (2005)

Complications causing death doesn't stop with adult elephants. There is also a high rate of stillbirths and infant mortality in zoos. (Index 1, Pp. 50, 52)

Zoos Cannot Meet Elephants' Needs

Simply put, keeping elephants captive in zoos is inhumane. Zoos and most other captive settings cannot provide the conditions that meet elephants' physical and behavioural needs.

The Detroit Zoo made the decision to send their elephants to a sanctuary because they came to the conclusion that they could not meet the elephants' needs. If a large, well-funded zoo such as the Detroit Zoo thinks that they cannot provide the necessary social and physical environment for elephants, what makes the Valley Zoo think they can? (Index 6)

We feel it is imperative for the Edmonton Valley Zoo and the City of Edmonton to do the right and responsible thing and to let ethics be their guide. They must look beyond financial considerations, pride of ownership, long held beliefs and personal attachments and make the lifesaving decision for Lucy by sending her to a sanctuary.

An influential study in the prestigious scientific journal *Nature* (Index 3) shows that wide ranging animals such as Asian elephants do poorly in zoos. They suffer from poor health, stereotypical behaviour and breeding difficulties, all conditions that afflict Lucy.

Space

Zoos cannot provide the vast acreage necessary for an elephant's need to walk.

Elephant enclosures are typically very small and barren, devoid of any natural vegetation. The barns where they spend most of their time generally have concrete floors, as does Lucy's barn. These conditions cause extremely painful arthritic and degenerative joint disorders, recurrent foot infections, digestive problems and almost always an early death.

Most people would probably be shocked to learn that elephants in captivity are given a daily diet of painkillers and anti-inflammatory medication to mask their pain and relieve their suffering. We must recognize that this constant suffering is the result of our selfish desire to keep elephants in captivity. How can this be justified?

Climate

Most zoos are located in cities with climates that are inappropriate for elephants. Elephants originate from warm, temperate regions of Africa and Asia and are adapted to those conditions.

Edmonton is an extreme example of an inappropriate climate for elephants. Lucy is kept indoors when the temperature drops below -10 C, a common occurrence during Edmonton's long winters. Add this time to the hours Lucy spends indoors when the zoo is closed: The result is that Lucy spends approximately 70% of her time locked in the barn. (Index 8). These cramped conditions allow for even less exercise and forces Lucy to stand on a concrete surface. These are the probable cause of foot infections in elephants.

Social Needs

Perhaps the saddest part of confinement in zoos is a disregard for the intense social needs of elephants. They are often housed in incompatible groupings or, worse still, alone. In

the wild, elephants live in complex societies; they are part of an extended family led by a matriarch. They will stay with this herd for their entire lives. Zoos routinely remove babies from their mothers at three, an age where they would still be nursing in the wild. As well, zoos show little or no regard for bonds that may have formed between elephants, shuffling them around indiscriminately for breeding programs.

Lucy is one of the unfortunate elephants forced to live in solitary confinement. Until fairly recently she was housed with Samantha, who was sent on a breeding loan to the North Carolina Zoo. Samantha, being an African elephant, is a different species (and genus) than Lucy and an example of the inappropriate grouping put together in zoos. Nevertheless, any bonds that may have formed between Lucy and Samantha were broken to accommodate the zoo's agenda.

Sanctuary Success – Case Studies

The Valley Zoo states that moving Lucy to the Tennessee Elephant Sanctuary (TES) is not feasible, claiming that it would be dangerous to transport her and detrimental to move her from her familiar home and the keepers she is bonded to (the VZ believes that Lucy's keepers provide the social stimulation she requires).

Substantial evidence exists to prove that the VZ's objections do not constitute legitimate reasons to keep Lucy here. Perhaps the most compelling evidence comes from the elephants themselves, those who have been moved to TES and PAWS (*Performing Animals Welfare Society, San Andreas, California, a sanctuary similar to TES*). At present, 23 elephants have been moved to TES and 12 elephants have been moved to PAWS. The success of TES and PAWS speaks for itself:

- In every one of these cases, transport was carried out safely and without injury or detriment to the elephant's health. The majority of these elephants had health problems at the time of the move; some were in substantially worse physical condition than Lucy.
- These elephants represent a wide array of personalities with varying background experiences and environments. Every one of them was able to become comfortable in her new home, successfully bonding with animals of their own species either Asian or African.

There is no reason to believe that Lucy's well being would be put at risk by moving her to TES. She would be transported in a custom-designed trailer by a team of TES personnel who have moved 23 elephants without incident. As in the case of all of the other elephants who have been moved to TES or PAWS, Lucy's health would be thoroughly assessed by veterinarians prior to the move to determine her fitness to travel*. She would also be carefully conditioned prior to the move; i.e., familiarized well with the trailer she would ride in as well as with the TES team members who would be transporting her (Note: Typically, personnel from the originating zoo also accompany the elephant on the trip. During the trip, a TES team member rides in trailer with the elephant so that she has company and is monitored constantly).

**It is important to recognize that the first priority of the TES is the safety and well being of the elephants and that the TES would not transport an elephant if there was reason to believe the trip might be harmful to her.*

There is also no reason to believe that Lucy would be unable to adjust to her new environment and bond with her new elephant companions and human caregivers at TES. While we certainly acknowledge that Lucy has bonds with her VZ keepers (they provide her with food, treats, and are her only source of companionship and social bonds), this is not a valid reason to keep her at the Valley Zoo. Bonds with humans do not fulfill an elephant's social needs, are not an adequate substitute for relationships with other elephants, and certainly do not prevent an elephant from being able to form relationships

with other elephants. Several of the elephants at TES and PAWS came from zoos where, like Lucy, they had lived almost their entire lives. As well, several of these elephants had lived a solitary existence prior to moving to TES or PAWS, with their keepers being their only opportunity for social interaction and bonding. Undoubtedly these elephants had bonds with their caregivers; however, when given the opportunity they proved very eager and capable of socializing and bonding with the other elephants at the sanctuaries (as well as with their new human caregivers).

Note: the introduction of a new elephant to a sanctuary environment cannot be considered to be the same as the introduction of a new elephant in a typical zoo environment. Due to lack of space and freedom of choice, transfers of elephants between zoos often prove to be very traumatic for the elephants, and in many cases the elephants do not adjust well, if at all. In contrast, the ample room, adequate facilities, and freedom of choice provided to the elephants at TES (and PAWS) allows for an appropriate acclimation process. The key is that the elephants are given the space and freedom to decide how they want to interact with the other elephants – this makes a world of difference as to how quickly and positively new elephants bond and integrate with the existing elephants.

If moved to TES, Lucy would benefit enormously on all levels from the improvement in her living situation. On the other hand, if Lucy stays at the Valley Zoo, her physical and mental condition will continue to deteriorate. For Lucy's sake, we are asking that she be moved.

Please see **Notes** (at the end of the report) for case studies for each of the elephants at The Elephant Sanctuary.

Conservation

More and more experts are recommending that there should be a national and international shift in resource allocation and emphasis aimed at habitat based conservation.(1)

Most good or accredited zoos list conservation as being a top priority and a central theme for their future. They often portray themselves as saviours, staving off the extinction of species, and The Species Survival Plan is trotted out as proof. In reality zoos have a limited impact on conservation; it is an expensive and ineffective way of managing the loss of species. Very few captive-bred animals are returned to the wild and it is highly unlikely that the VZ would ever be able to make a significant contribution to conservation through captive breeding.

Vast sums are spent on individual exhibits in North American zoos. This money would make a huge difference for conservation efforts in the wild.

***In-Situ v Ex-Situ* Cost Comparisons**

1. Annual captive maintenance of Black rhino per animal: \$16,800
2. Annual cost of protecting appropriate wild habitat to support one rhino: \$1,000

Therefore 16 rhino can be supported in the wild, for the same cost of keeping a single rhino in a zoo.

3. It has been estimated that it can cost over 100 times more to maintain a group of elephants in captivity for a year than to conserve a similar group, and their entire ecosystem, in-situ for the same period.
4. Garamba National Park, Zaire - size 492,000 ha: Annual operating costs for the Garamba National Park - \$269,500. Equivalent to the cost of keeping 16 rhinos in captivity.

The species protected in the Garamba National Park include:

- 31 Northern white rhino.
- 4,000 elephant
- 30,000 buffalo
- The entire giraffe population of Zaire
- 14 other ungulate species
- 16 carnivora species
- 10 primates species
- 93 other small or medium-sized mammal species

Source: *Alibhai, S.K. & Jewell, Z.C. 'Saving the Last Rhino: In-Situ Conservation or Captive-Breeding?' Rhinowatch. in press. 1993*

Comments about conservation by Winnie Kiiru.

Winnie Kiiru is author of the Zoocheck report *The Sad State of Elephants in Canada* and she most recently served as Project Manager for the Amboseli Human Elephant Conflict Project in Kenya.(2)

While in Edmonton she stated that the entire yearly budget for Amboseli National Park is \$1 million. Compare this to the Maryland Zoo's planned \$30 million expansion for exercise trails for its elephants, clearly money that could be better spent.

Ms. Kiiru also emphasized that the elephant population in Amboseli is doing just fine. She then stated that the view that North America is the place where our elephants are going to be saved from extinction is obnoxious.

References

1. Dickson, Andrew and Will Travers, 1994. *The Zoo Inquiry*. World Society for the Protection of Animals and the Born Free Foundation.
2. W. Kiiru 1993. The current status of human-elephant conflict in Kenya. *Pachyderm* 19: 15-19.

Educational Value

The main purpose of zoos has always been, and to this day remains, entertainment. Zoos, however, feel they must be seen to have a more weighty and serious purpose to justify putting animals in small cages. They therefore claim that keeping exotic animals, particularly elephants, supports conservation, education and research.

Education is a somewhat vague concept. The educational role of zoos has never been adequately quantified and it is, therefore, difficult to determine what educational benefits keeping elephants would bring. What can possibly be learned from seeing an elephant in an entirely artificial habitat, in the wrong climate who is neither a part of anything resembling a natural social grouping nor performing activities normally seen in the wild. It is obvious that educational claims are overstated.

As well, zoos make little effort for their educational programs to be innovative with imaginative use of materials and new technology. The same hackneyed “facts” about the animals are trotted out again and again, facts that do very little to explain the complex lives of elephants in their natural habitat. Some examples of signage at the Valley Zoo illustrate the poor quality of information that passes for education (see examples below).



1. This mural at the zoo is an embarrassment. There is very little factual information and no information about conservation at all. In direct conflict to the zoo's stated mandate, this mural uses questionable information to justify mans' domination over animals. It is unacceptable for zoos to suggest that these endangered animals should be trained and used in acts of entertainment.

Asian elephant

(*Elephas maximus*)



Asian elephants have been domesticated for thousands of years. They were used for transportation and in the logging industry. Today they are still used in logging, but more widely used in tourism and religious ceremonies.

The Asian elephant (Indian elephant) population is critically low in the wild, much lower than African elephants. This decline in numbers is due to habitat loss. Approximately 20% of the world's human population live in the areas where Asian elephants live. Logging, settlement, mining, farming, and hydroelectric projects continue to destroy the natural forests and grasslands of the region, making it difficult for Asian elephants to co-exist with the large human population. This loss of habitat in some areas has caused starvation in the herds, driving them to eat agricultural crops. Although elephants are revered in many of the Asian countries, they are sometimes culled (killed legally) for human safety.

Asian elephants are poached for the ivory trade, but this is less of a problem to their survival than habitat destruction. Asian elephant males have tusks, but they do not grow as large as their African cousins. Asian elephant females do not have tusks.

Habitat: grasslands, marshes, savannas and forests
Diet: bamboo, grasses, trees and shrubs
Life Span: 70 years
Young: 1 young every 4 - 9 years (calf)
Size: Males 2,700 - 5,000 kg (6,000 - 11,000 lbs)
Females smaller

Extinct in the Wild

Endangered

Threatened

Rare

Thriving



Sign by Lucy's outside enclosure states that Asian elephants have been domesticated for thousands of years. This is incorrect information and it is absolutely unacceptable that the zoo appears not to know better. Although elephants have been used by people for a very long time they are still considered wild animals. To be domesticated, an animal must conform to a number of criteria and elephants do not.

Elephant-Free Zoos

With the recognition that zoos cannot adequately provide for the complex needs of elephants, several zoos have closed their elephant exhibits, setting a positive precedent worldwide.

United States

Zoo	Year	Elephant Disposition
Philadelphia Zoo (Pennsylvania)	Pending as of 2007	Asian elephant Dulary was sent to The Elephant Sanctuary in April 2007. Three African elephants are scheduled to transfer to the Pittsburgh Zoo's elephant-breeding center by the fall of 2007.
Gladys Porter Zoo (Texas)	2006	Citing its inability to increase the size of its elephant exhibit, sent its only elephant, Ruth, a 28-year-old African, to another facility.
Lion Country Safari (Florida)	Pending as of 2006	Intends to find new homes for African elephants Stumpy and Mama and then will close its elephant exhibit.
Santa Barbara Zoo (California)	Pending as of 2006	Announced that it will not take any more elephants after the current two die.
Bronx Zoo (New York)	Pending as of 2006	Announced that when two of its three elephants pass away, the remaining one will be sent to another zoo and the elephant exhibit will close.
Lincoln Park Zoo (Chicago)	2005	After all three of its elephants died within a six-month period, announced that camels will be moved into the empty elephant exhibit.
Detroit Zoo (Michigan)	2004	Citing problems with keeping elephants in captivity, announced its decision to close its elephant exhibit and send the two female Asian elephants—Winky, age 51, and Wanda, age 46—to a sanctuary.
San Francisco Zoo (California)	2004	Announced its decision to close its elephant exhibit and send Tinkerbelle, a 37-year-old Asian elephant, and Lulu, a 38-year-old African elephant, to a sanctuary.
Chehaw Wild Animal Park (Georgia)	2004	Retired Tange and Zula, both 30-year-old African elephants, to The Elephant Sanctuary because the elephants “deserve to live out their remaining years in the very best captive environment possible.”
Henry Vilas Zoo (Wisconsin)	2000	Retired Winkie, a 34-year-old Asian elephant, to The Elephant Sanctuary, and transferred Penny, a 21-year-old African elephant, to Riverbanks Zoo, North Carolina.
Louisiana Purchase Gardens and Zoo (Louisiana)	1999	Retired Shirley, a 51-year-old Asian elephant, to The Elephant Sanctuary because “[i]t was in Shirley's best interests to retire her to a place that was more suitable.”
Mesker Park Zoo (Indiana)	1999	Retired Bunny, a 46-year-old Asian elephant, to The Elephant Sanctuary.
Frank Buck Zoo (Texas)	1998	Transferred Sissy, a 20-year-old Asian elephant, to the

		Houston Zoo, then to El Paso Zoo, and finally to The Elephant Sanctuary.
Sacramento Zoo (California)	1991	Sent lone elephant Winky to the Detroit Zoo because the zoo's elephant enclosure was considered "totally inadequate."

International

Zoo	Year	Elephant Disposition
Dudley Zoo (United Kingdom)	2003	Transferred African elephants Flossie and Flora to Planet Sauvage in Nantes, France. (Dudley Zoo had admitted for some years that its enclosure was not appropriate, and fundraising to build a new enclosure was unsuccessful, so the zoo finally decided to find a new home for the elephants and has no plans to have more elephants in the future.)
Longleat Safari Park (United Kingdom)	2003	Closed the elephant exhibit at its 350-acre Wiltshire site and relocated five African elephants to the Zoo Parc de Beauval in France.
Bristol Zoo (United Kingdom)	2002	Euthanized the lone 42-year-old female elephant, Wendy, after years of suffering from arthritis. (She had been kept alone in a tiny enclosure since 1986. Bristol Zoo elected not to replace her.)
London Zoo (United Kingdom)	2001	Permanently relocated three female Asian elephants (Mya, Layang-Layang, and Dilberta) to Whipsnade Wild Animal Park, closing the zoo's 170-year-old elephant exhibit. (London Zoo's enclosure had been heavily criticized for years, and a keeper was killed in October 2001.)
Edinburgh Zoo (United Kingdom)	1988	No longer keeps elephants because of fears that captivity may cause harm to the animals.

The Elephants of TES

Age:

- 15 of the TES elephants were older than 33 (Lucy's current age) at the time of their move to TES; four were in their 50's (Delhi, 57, Lota, 53, Billie, 53, and Shirley, 51) nine were in their 40's (Liz, 49, Bunny, 47, Queenie, 47, Dulary, 44, Lottie, 43, Misty, 40, Minnie, 40, Ronnie, 40, Frieda, 40) six in their 30's (Debbie, 35, Winkie, 34, Tina, 33, Sissy, 32, Tange, 31, and Barbara, 30) and four in their 20's (Zula, 29, Flora, 22, Jenny, 24, and Tarra, 21).

Health Issues:

- The majority of the elephants at TES were affected by health problems/issues prior to and at the time of their move. In several cases these health issues were severe, including two cases of terminal osteomyelitis* and two tuberculosis-positive elephants.

*Osteomyelitis:

"3 out of 4 captive elephants die of a bone infection, osteomyelitis, a preventable disease caused when elephants stand on hard surfaces and live in small spaces. Ulcers form on the cushioned pads of an elephant's foot, festering until the chronic infection migrates through the flesh of the foot to the bone. The bones of the foot disintegrate, causing the foot to collapse, leaving the elephant crippled and in excruciating pain. At this point a zoo has no other option but to euthanize the elephant. It is important to note that according to researchers and veterinarians familiar with wild populations of African and Asian elephants - osteomyelitis and arthritis are diseases which do not affect wild elephants".

Carol Buckley, Executive Director at The Elephant Sanctuary in Tennessee.

From: "An Elephant's Need for Space: The Debate Continues" - Trunklines, Spring 2006, (http://www.elephants.com/pdf/Trunklines_Spring06.pdf).

Examples:

- **Delhi, 57** - advanced osteomyelitis in both front feet. Severe chemical burns on her feet due to a handler at Hawthorn Corporation (which owned her before she was confiscated by the USDA and moved to TES) soaking them in undiluted formaldehyde. Also had infected sores on her elbows and a partially paralysed trunk.

Delhi was crippled when she arrived at the Sanctuary, her life expectancy questionable (osteomyelitis has not yet been cured in elephants); she was classified by her veterinarian to be under hospice care. Under the care of TES, Delhi's condition improved, the disease process slowed dramatically, and she was able to

enjoy over four active years of life (roaming, playing, running) before her passing on March 11, 2008 at age 62.

It is of interest to note as well that due to the circumstances surrounding Delhi's move (she was confiscated from the Hawthorn Corporation by the USDA and moved on very short notice), there was no opportunity to familiarize her with the TES team. The day she was picked up from the Hawthorn barn, Hawthorn would not even allow her familiar keepers to assist in loading her on the truck, so she was loaded and transported by people who were entirely unfamiliar to her; nonetheless, the move went smoothly and Delhi settled in her new surroundings right away. Two other Hawthorn elephants, Lota and Misty, were also successfully and safely loaded and transported by the TES team (who they were not familiar with). These cases are just two of the many examples that evidence the experience, dedication, and talent of the team of personnel at TES.

- **Tina, 33** – overweight, foot problems, suffered from osteomyelitis for many years.
- **Lota, 53** – emaciated; advanced tuberculosis (Lota was diagnosed with TB in 1996; she was moved to TES in November 2004)

Lota was moved to TES as a result of USDA prosecutions against her owner, Hawthorn Corporation, for violations of the Animal Welfare Act involving the care and mistreatment of its elephants. On November 17, 2004, after months of delays, Lota and Misty (another elephant owned by Hawthorn who had also tested positive for tuberculosis) were finally released to the Sanctuary. Although the team at TES did everything they could to enable Lota recover, sadly, the TB was too advanced and she passed away on February 9, 2005. Before her peaceful passing, Lota enjoyed 2 months and 23 days of freedom, sunshine, fresh air, the companionship of her dear friend Misty, and, after enduring a lifetime of cruelty and neglect, she was finally able to experience love, respect, and gentle care from human caregivers.

Note: When arrangements were made for Lota and Misty to be moved to TES, utmost precautions were taken to prepare facilities to care for them and to protect the health of the existing TES elephants as well as all staff, volunteers, and visitors. This included:

- Development of *The Elephant Sanctuary Respiratory Protection and Infection Control Plan*, an extensive protocol outlining preventative measures far exceeding those required of other facilities housing MTB positive elephants.
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- Special quarantine facilities were prepared for Lota and Misty to live in during their treatment/quarantine period, where Misty remained until August 18, 2006, when she was released from quarantine and at last joined her old friend Delhi and her new friends in the Asian elephant habitat.
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- **Liz, 49** – emaciated at only 6,000 lbs, foot infection, raspy cough.
- **Barbara, 30** – arrived at TES depressed and emaciated; 2,000 lbs underweight.
- **Jenny, 24** – severely underweight, chronic foot rot, had a leg injury and was not using the injured leg. (the leg was not treated when the injury occurred in 1992, four years prior to her move to TES).
- **Shirley, 51** – right hind leg was seriously broken in 1975 - the leg was not set at the time of injury and healed poorly (nonetheless, Shirley was still forced to perform for a circus for another 2 years). She had a limp and her foot pads and nails were unevenly worn.
- **Sissy, 32** – depressed, severely underweight, a medical procedure had left her trunk completely paralysed, and she had been knocked over at least twice by another elephant (at El Paso Zoo) and was unable to get back on her feet on her own.

Travel Distance to TES:

- Lucy's move to TES would involve a 3,549 km* trip; while this is a significant distance, it is important to note that three of the elephants at TES were transported (by TES personnel) significant distances and all made the trip without incident or detriment to their health.

Examples:

Lucy (<i>Edmonton, Alberta</i>)	3,549 km
Tina (<i>Aldergrove, British Columbia</i>)	4,185 km
Jenny (<i>Las Vegas, Nevada</i>)	2,897 km
Sissy (<i>El Paso, Texas</i>)	2,013 km

**distances provided are approximate, as the actual km would vary somewhat depending on specific route traveled.*

Living Situations Prior to Move to TES:

- Seven of the elephants came from a situation where they had been living solitary prior to their move to TES; of these elephants, six had been solitary for the majority of their lives.
- In these cases, the elephants' prior living arrangements did not prevent their successful acclimation to their new home or bonding / integration with their new companions; elephants do not "forget" or lose their ability or need for social relationships with other elephants (nor do they develop a preference for interaction

with humans as opposed to other elephants). In every one of these cases, the solitary elephant bonded with another elephant within 24 hours of her arrival at TES. (Index 12 b), page 196).

Examples:

- **Shirley** – lived alone at Louisiana Purchase Zoo and Gardens for **23 years**. Not only did Shirley immediately interact positively with Tarra, but she also had a very enthusiastic, deeply emotional reunion with Jenny when they saw each other. Jenny and Shirley were at the same circus when Shirley was in her 20's and Jenny was a calf. They had spent one winter together, 22 years prior.
- **Bunny** – lived alone at Mesker Park Zoo for **45 years**.
- **Sissy** – lived alone at the Frank Buck Zoo for **28 years**.

Note: in 1986 (at age 12) Sissy was shipped to the Fort Worth Zoo for breeding, where she had difficulty interacting with and was not accepted by the other elephants. She spent two years at Fort Worth (during which she did not become pregnant) after which she was moved back to the Frank Buck Zoo. In sharp contrast, when Sissy was moved to TES in January of 2000, she quite quickly became comfortable interacting with her new companions – she formed a bond right away with Barbara, and even became a “mentor” to another elephant, Winkie, when Winkie arrived at the Sanctuary in September of 2000.

- **Tina** – lived alone at the Greater Vancouver Zoo for **14 years** until the zoo brought in an African elephant (Tumpe), who she lived with for 16 years until Tumpe was sent to a US zoo for breeding. Tina then lived alone again for **1 year** prior to her move to TES.

Read about the elephants meeting and bonding with their new companions in the TES Elephant biographies and Ele-diaries:

<http://www.elephants.com/bios.htm>

<http://www.elephants.com/elediary.htm>

As well, see PAWS elephant bios, videos and webcams:

http://www.pawsweb.org/meet_elephants.html

Further evidence of the benefits to the elephants living at TES:

Case studies of the TES elephants not only evidence that transport and acclimation is feasible for Lucy, but they also demonstrate the enormous benefits that result from the environment and exceptional care received at the Sanctuary:

- Dramatic improvements in foot health:

With the exception of osteomyelitis (which has not yet been cured in elephants), foot and nail problems are remedied in a matter of months (*Index 1, page 72 & 73*).

Examples:

Bunny – Suffered from foot infections for close to 20 years; recovered from her debilitating foot disease within 6 months of her arrival and has not experienced any foot problems since.

Winkie – Arrived at TES with osteoarthritis and osteomyelitis. After several months the infection was no longer active (*Index 1, page 77*).

Jenny – Suffering extreme pain due to extensive foot problems when she arrived at TES (untreated leg injury; severely overgrown foot pads with numerous deep, infected cracks; severely overgrown and infected nails; overgrown, dry and cracked cuticles; dry, split heels). Foot health was restored within 1 year, with no further trimming necessary after the first 6 weeks (*Index 1, page 77*).

- Improvement in joint problems and overall body condition:

At TES the elephants are able to fulfill their exercise needs – this promotes weight loss and builds muscle strength, which relieves pressure on damaged joints. As well, blood flow to the joints is increased, which is critical in keeping the joints healthy and promoting healing (*Index 1, page 74*).

Access to natural substrates allows the elephants find comfortable places to sleep – this is very important as it enables them to take the weight off of their feet for a period of time and allows them to obtain quality sleep, without developing any pressure sores (which typically result when elephants are forced to lay on unyielding surfaces such as concrete) (*Index 1, page 74*).

Range of motion of joints is restored; elephants regain the ability to walk, run, climb, and play (*Index 1, page 74*).

Examples:

- **Delhi** – although she arrived at TES with osteomyelitis, due to her new environment and diet, the disease process slowed dramatically and Delhi was able to be extremely active, walking miles each day, climbing hills, and even running on occasion.
- **Shirley** – arrived at TES with a permanent leg injury that caused her to limp and her foot pads and nails to wear unevenly. At TES her condition improved immensely; she has no trouble laying down, scaling steep hillsides, swimming, running, and walking for miles each day, showing no discomfort in the crippled leg. Her foot pads and nails also wear evenly and no longer require corrective trimming.
- **Zula** – (31 year old African elephant) arrived at TES with a history of hip problems. After several months of increased activity, her range of motion improved and she is now able to navigate terrain that she was incapable of navigating when she first came to TES.
- Improvement in psychological and emotional health:

The passive control, non-dominant management philosophy and natural habitat environment provided to the elephants at TES supports and enables their recovery from the effects of past psychological / emotional traumas, allowing them reclaim their true natures. As Carol Buckley states, “Our decade of research has provided the data to suggest that a change of environment from deprived to enriched can reverse an elephant’s physical condition and psychological disposition. By providing a healthy environment, even an elephant that has displayed neurotic, antisocial and/or aggressive behaviour for decades can revert back to a gentle, cooperative and social creature, characteristic of her species” (*Trunklines, Spring 2006* http://www.elephants.com/pdf/Trunklines_Spring06.pdf).

- Stereotypic behaviours (rocking, head-bobbing, etc.) replaced with healthy species-typical behaviours such as walking, foraging, and interacting with other elephants.
- Aggressive behaviours cease or subside; most aggressive elephants do not feel the need to act out when they have freedom of choice (*Index 12 b*), page 195). Elephants previously considered unmanageable, even “killer” elephants, have become cooperative and non-threatening at the Sanctuary (*Trunklines, October 2001* http://www.elephants.com/pdf/oct_2001.pdf).
- Elephants who are insecure or socially inept are able to gain confidence, overcome fears and learn to relate in a positive way to other elephants and human caregivers.

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- **Examples:**

- **Misty** – Labelled a killer as a result of the death of a keeper in 1983, she maintained this dangerous reputation until the day that TES took custody of her from the Hawthorn Corporation. Her outlook and behaviour changed dramatically upon her arrival at TES, where she is playful, cooperative and affectionate, and has not shown any of her former aggressive behaviours.
- **Billie** – Traveled and performed in a circus until she became so aggressive to her trainers that she was sent to live permanently at the Hawthorn Corporation's winter quarters where she was managed protected contact. Billie has shown no signs of aggression since her arrival at TES and is described by TES personnel as a very loving and gentle elephant.
- **Frieda** – Prior to her arrival at TES, Frieda was labelled as a dangerous elephant, banned from travel and performing, and isolated in protected contact. At TES however, her behaviour is completely contrary to this reputation; she is affectionate and has shown no signs of aggression since her arrival.
- **Winkie** - During her 30 years at the Henry Vilas Zoo, Winkie lived in very impoverished surroundings and was managed free contact dominance. The stress, fear, and frustration she experienced due to these living conditions caused her to lash out, and over the years she hurt several keepers and visitors, earning a reputation as a dangerous elephant. She arrived at TES with many insecurities but with time and the support and encouragement from her caregivers and best friend Sissy, her confidence grew, she overcame her fears, and with the exception of one tragic event*, she abandoned all of her former aggressive behaviour.

*On July 21, 2006 Winkie killed caregiver Joanna Burke. The incident was witnessed by Scott Blais and is understood to have resulted from a flashback caused by Post Traumatic Stress Disorder. After the incident Winkie sank into a deep depression for approximately one week; this is both symptomatic and consistent with a post-flashback experience. Although independent investigations conducted by five agencies all concluded that TES was in full compliance with all regulations and Joanna's death was an accident, TES immediately adopted new caregiver safety protocols for use when caring for any elephant with a history of aggression (*Trunklines, Fall 2006* - http://www.elephants.com/pdf/Trunklines_Fall06.pdf).

Following the accident, Gay Bradshaw, a noted Post Traumatic Stress Disorder expert, began working with TES to study and gain knowledge about the effects of trauma on elephants. TES continues to participate in non-invasive research of PTSD in elephants, in an effort to better understand the disorder and its impacts, which promises to benefit elephants both in captivity and in the wild (*Trunklines, Spring 2006* http://www.elephants.com/pdf/Trunklines_Spring06.pdf).

- **Sissy** – In 1981, Sissy almost drowned in a flood – this terrifying experience caused long term emotional trauma and a phobia of water. In 1996, she was labelled a killer after a keeper was killed in her enclosure at Frank Buck Zoo. She was subsequently moved to the Houston Zoo (where keepers found her to be fairly antisocial and aggressive, and managed her protected contact) and then the El Paso Zoo, where she was brutally beaten by her new keepers upon her arrival. At TES, Sissy has finally had the opportunity to heal from the many traumas of her past; she has overcome many insecurities, including her phobia of water – she is now able to enjoy playing in the creeks and ponds. Her confidence has grown so much that she even helped Winkie, another shy, insecure elephant, gain confidence and overcome many of her fears. Further, she has shown none of her former aggressive behaviour; she is described by Carol Buckley as “calm, compassionate and loving” (*Trunklines, Fall 2002* http://www.elephants.com/pdf/fall_2002.pdf) and “one of the most gentle individuals I have ever been around” (Star-Telegram.com June 20, 2007).

Maggie’s Story

Maggie’s story is an example that further supports and evidences that the concerns suggested by the VZ are not sufficient reason to keep her at the VZ.

Note: Now that Maggie has moved to her permanent home at PAWS Ark 2000 sanctuary (Performing Animals Welfare Society, San Andreas, California), Lucy is now the most northern socially isolated elephant on the continent.

Maggie, Alaska Zoo, moved to PAWS Ark 2000 Sanctuary Nov. 2007

Maggie a 25 year old African elephant, was moved from the Alaska Zoo (AZ) to PAWS Ark 2000 in November of 2007. She had lived alone at the AZ for 10 years, following the premature death of her companion Annabelle at age 32 due to foot infection that spread into her bones and bloodstream.

Maggie’s dire situation at the AZ was very similar to Lucy’s current situation:

- Inappropriate social grouping (solitary confinement):

- Negative psychological and emotional effects of being deprived of the opportunity to bond and socialize with her own species
- Inappropriate climate / temperature conditions resulting in extensive periods of indoor confinement:
 - Boredom and stereotypic behaviours
 - Significant lack of physical activity leading to overweight and poor physical fitness
 - Lack of exposure to natural light
- Impoverished outdoor and indoor enclosures:
 - Severe lack of space, adequate mental stimulation and opportunities to engage in wide range of satisfying natural behaviours (i.e., roaming, swimming, grazing/foraging, digging, felling trees, playing with other elephants) resulting in:
 - Boredom and stress
 - Stereotypic behaviours
 - Significant lack of physical activity, resulting in excess weight and poor level of physical fitness

Similar to position that the Valley Zoo has taken so far regarding Lucy, when it was initially suggested that Maggie must be moved to a more suitable home, the Alaska Zoo's board of directors discussed moving Maggie but instead voted to keep her in Alaska, concluding that "Maggie is in good health, this is the only home she's known, and there are health issues involved in transportation and relocations" (*Lise Funderburg, "Peaceable Kingdom, an elephant tale", Hallmark Magazine January / February 2007*).

Contrary to this reasoning, however, three years later when the AZ Board finally agreed to move Maggie (following two incidents where Maggie went down and was unable to get back on her feet by herself*) neither health issues nor leaving her lifelong home proved to be any impediment to her successful journey (which due to the distance from Alaska to San Andreas even involved a 4-hour flight) and integration into her new home and elephant family at PAWS, where she is now thriving.

*Note:

On May 13, 2007, Maggie lay down and was unable to get back up. 17 firefighters with a winch and tow truck were required to get her back on her feet. During this incident Maggie was laying down for at least 10, and possibly as long as 19 hours – an extremely perilous situation for an elephant.

On May 16, 2007, Maggie went down a second time. 12 firefighters returned with the winch and tow truck to help her back up again. During this second incident, Maggie was down for 6 or 7 hours.

If an elephant lies down or collapses and remains in a prone position too long, the weight of the elephant's body can disrupt blood flow to the extremities, impair breathing, and damage internal organs.

In 2006, Gita, an elephant at the Los Angeles Zoo, died after she collapsed and remained on the ground for over eight hours. Lucy, an elephant from the Milwaukee Zoo, was euthanized after two collapses which occurred a few months apart.

Highlights of Maggie's Introduction / Integration at PAWS:

- November 2, 2007 - Maggie arrives at PAWS Ark 2000.
- During the introductory period (November 2, 2007 to February 13, 2008) Maggie lived in her own indoor stall and outdoor habitat which directly adjoined that of the other African elephants, enabling her to be with them 24 hours a day and to touch and socialize with them from the other side of the barriers.
- By her fifth day at PAWS, Maggie was already becoming relaxed around the group and stayed right at the fence with them, staying close and frequently turning her back for each of them when they approached to explore and touch her - a sign of acceptance and trust (*see "Maggie is Joining the Group" – diary entry November 6, 2007 http://www.pawsweb.org/news_and_alerts_maggie_11_7_07.html*).
- November 17, 2007 - while being introduced to the rugged habitat area, Maggie was very reluctant to leave her new elephant companions to follow her keepers (her keepers from the Alaska Zoo, who accompanied her on the trip and stayed at PAWS until Nov. 18th to assist in Maggie's introduction to her new home) out to explore the large area. After exploring the new habitat, Maggie was eager to return to the other elephants (*see "Maggie's Walk on the Wild Side" – diary entry November 17, 2007 http://www.pawsweb.org/news_and_alerts_maggie_11_17_07.html*).
- December 8, 2007 – diary entry notes that, "It was obvious to all that Maggie, the lone elephant from Alaska, had bonded deeply for life with 71's group..."
- April 10, 2008 – Maggie is now happily living in with the rest of the group of African elephants; the diary entry reads, "Maggie is now a strong, very vocal member of 71's eclectic group of displaced, dysfunctional, delightful and quite devoted elephants...The photographs, which we have taken, cannot truly reflect the freedom and independence that Maggie displays as she confidently struts across the hill, rumbling and roaring her pleasure as her loyal friends graze nearby".