

Animals in Traveling Circuses: The Science on Suffering



A discussion of the scientific evidence on animal suffering in captivity and transport, and a study of the use of animals in circuses in the U.S.

www.ad-international.org

ADI Background

Animal Defenders International U.S. works to end the suffering of animals in captivity. The use of animals in entertainment, especially in circuses, is a key focus, with the aim of educating the public and informing legislators.

ADI in the U.S. collaborates with ADI partner organizations who are operating worldwide, sharing information about the use of animals in the entertainment industry. ADI undercover field officers work alongside the circus workers, filming, photographing, and making detailed observations of day-to-day life and animal care practices. In addition to gathering this evidence our researchers study the scientific literature on the effects of captivity in animals, so that we can provide governments and decision-makers with relevant scientific data to inform their decisions about the protection of animals in circuses.

ADI evidence of animal suffering has led to national and local restrictions on animal circuses across Europe, South America and Asia. We have also rescued and rehomed circus animals such as lions, tigers, horses, dogs, reptiles and chimpanzees.

Following our exposure of an African circus suspected of smuggling, a seven-year campaign achieved new regulations for the cross-border movement of endangered species with circuses at the Conference of Parties to the Convention on International Trade in Endangered Species (CITES) in Santiago, Chile. The rules, which are designed to curb the ability of circuses to traffic in endangered species, affect over 170 countries.

Where necessary, ADI organizations assist the authorities with prosecutions for cruelty. International circus trainer (and supplier of animals to the U.S. film industry) Mary Chipperfield, her husband, and their elephant trainer were convicted when our evidence showed Chipperfield beating a baby chimpanzee mercilessly, and her husband and elephant keeper beating her elephants to the ground. We provided the government of Chile with evidence to secure the rescue of a chimpanzee. ADI organizations assist the authorities with legal cases in Europe, the U.K., and South America.

In 2008 ADI U.S. is active with our 'Stop Circus Suffering' campaign in both the U.S. and South America. Our colleagues in ADI partner groups are active in the U.K., Ireland, Greece, Portugal, Norway, Bolivia, Chile, Colombia, Ecuador and Peru. ADI's expertise and resources are at work in many other countries.

Photos right: Circus animals rescued by ADI

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1. Introduction

Animals in circuses belong in the past, to a time when humans were ignorant about the other species that share our planet. However, over the past one hundred years human understanding has grown – science can now tell us about the intelligence of other species, their means of communication, toolmaking, culture, family bonds and emotions. Psychological, behavioral and environmental studies have helped us understand their world. With this greater knowledge of the capacity for suffering in our fellow creatures who share this earth, it is no longer acceptable for us to abuse animals in circuses, just for our entertainment. It is not the behavior of a civilized, advanced society.

No one is saying ‘end circuses.’ Rather, let’s take animals out of circuses and let humans do the entertaining. This has economic benefits; ADI has found that as animal circuses close, the trend is that animal-free circuses replace them. The circus industry can still thrive and even increase overall attendance without the stigma of animal suffering.

ADI partner organizations have studied circuses all over the world. We observe how animals live, how they are trained, and importantly, the attitudes of the workers. We have gathered extensive observational data and videotape. Our studies have concluded that life for animals in circuses is one of deprivation and suffering – they are deprived of everything that makes their life fulfilling. Circus animals are taken away from their family groups, forced to do tricks that they do not want to do; forced to live in tiny, barren cages where they have to eat, sleep, and defecate all in the same space, or spend a large part of their day tied on short ropes. These animal care practices are common throughout the worldwide industry. In addition, circus animals are frequently kicked, punched, whipped and beaten to make them obey. Such treatment of defenseless animals degrades our society.

Some key findings from ADI’s studies of circus practices worldwide:

- Horses and ponies spend up to 96 percent of their time tied with short ropes in stalls, or tethered to trailers. Time in the ring, allowing them to run, is limited.
- Tigers and lions spend between 75 and 99 percent of their time in severely cramped cages on the backs of trailers. So called ‘exercise cages’, if used, add little more space, and time available to use them is limited.
- Elephants spend 58 to 98 percent of their time chained by at least one leg, and generally both a front and hind leg. The circus norm is to chain elephants overnight, either in tents or trailers. Elephant enclosures with circuses are desperately inadequate, and the regime of chaining, being prepared for the show, performing and giving rides means time in them is very limited.
- Animals in circuses suffer poor animal welfare and long, arduous journeys.
- Extended periods being tied up, chained, or caged results in abnormal behaviors that indicate these animals are suffering as a result of the environmentally impoverished, inappropriate conditions in which they live.

It is therefore essential that consideration be given to legislation to prohibit the use of animals in traveling circuses.

Legislation should specifically outlaw violence during training. Current animal anticruelty laws will not prevent violence in training if different standards apply to performing animals.

Circus animals in the U.S. are vulnerable to abuse:

- ADI’s studies of common training practices have shown that the public rehearsals frequently seen on the road are entirely different from the real training, where the animal learns its routine, which goes on in the permanent training center, behind closed doors.
- Once animals have been ‘broken’ they will probably spend the rest of their lives plodding through variants of the same routine, including the moments when they refuse to obey or when they ‘pretend to attack’ the handler. The cats will perform this routine with any handler to whom they have been leased or purchased for the season.
- Intimidation and abuse of animals in circuses ranges from daily subjugation – shouting, screaming, banging cage bars, whipping – escalating to kicks, punches, up to a full-blown beating with iron bars, broom handles, pitchforks, or whatever is at hand.
- When moving lions and tigers for example, workers bang the bars of cages and cage tunnels with iron bars and scream, to get the cats to move quickly. Audiences do not realize that when a group of large cats come running into the ring, as if full of enthusiasm, it is because someone is standing behind the curtain with an iron bar in their hand (ADI observations). We have previously filmed a full-grown lioness urinating in fear when screamed at.
- For most of their time, animals are being cared for by untrained minimum-wage workers who are under pressure to move the animals fast and do not understand the species they are dealing with; this alone can lead to violence.



Photo © Animal Defenders International



Photo © Animal Defenders International

Beaten, dragged to her knees and then kicked in the face. Swain elephant at Bailey Brothers Circus.



Photo © Animal Defenders International



Top: Three month old tiger cub hit in the face, to “behave”, Sterling & Reid Circus.
Bottom: Tigers in a trailer. Clyde Beatty Cole Brothers Circus.



The Scientific Evidence on Suffering

Other than ADI's evidence, there has been little first-hand data on the treatment of animals in traveling circuses and its effects on them. We have therefore reviewed the scientific literature on animals during transport, in confinement and in captivity for other industries, such as zoos, farming and laboratories. We have discussed the biological indicators of stress, as well as the behavioral and psychological effects of captivity and confinement in a range of species. This research is summarized in section 4 of this report.

The frustration caused to animals by extreme confinement in traveling circuses – living in a tiny cage where they can barely move around, or constantly chained to the ground – restricts their ability to perform their natural behaviors.

The scientific evidence is clear – if an animal has no control over its environment, and cannot move about to exercise its body and mind, this causes it to start to perform repetitive, abnormal behaviors which animal behaviorists call 'stereotypical' or 'displacement' behaviors – these behaviors are an indicator that the animal's welfare has been compromised, and that it is suffering as a result.

The science, and our own observations, tell us that these animals experience mental as well as physical suffering in traveling circuses.

We conclude that the traveling circus is not a suitable environment for an animal. Restrictions of space, time, mobility and facilities mean that no animal will be able to behave as he or she would in his/her natural environment. Many species commonly kept in circuses have highly specialized behaviors, making it impossible to meet their needs.

Suffering in both humans and animals is not easy to prove. However, if animals behave in an unnatural manner or exhibit behaviors that cause concern, **such concern is justified until proven otherwise**. A civilization that considers itself humane would give potential victims the benefit of the doubt.

The Pilot Study

There are currently at least sixteen major U.S. animal circuses, some with multiple units that travel separately. We report here the results of a pilot study of nine randomly selected animal circuses in the U.S., using over 300 animals. ADI field officers studied training, performances and animal care practices, and found examples of animal abuse. This confirms that animal suffering is inherent in traveling circuses in the U.S., it is not restricted to wild or exotic species and despite popular misconceptions, domestic and farm animals suffer as well.

U.S. Law and Recommendations

In section 5 we discuss the Animal Welfare Act and the responsibilities of the U.S. Department of Agriculture (USDA) for licensing circuses and conducting inspections. The U.S. must take responsibility for some of the suffering of animals in foreign circuses, as there is evidence that circuses in Central and South America acquire their animals from U.S. circuses and animal suppliers. We raise some issues about the limitations of the current legislation, the USDA's inspection guidelines, enforcement, and we make recommendations for updating the Act.

Defining Animal Welfare

It is important to describe what we mean by 'animal welfare'. ADI believes that an animal's welfare includes its physical and mental state. Good animal welfare implies both fitness and a sense of well-being.

The scientific literature discussed in section 4 covers both wild and domestic species, including cattle, sheep, pigs and deer during transport, captivity and confinement. The behavior of a domestic animal is still highly influenced by its wild ancestry, such as herding behavior in horses and predator responses in domestic and wild herbivores. Therefore, studies on domestic species give an indication to how related exotic species may respond to certain stimuli.

The welfare of an animal can be assessed on whether it has control over its environment and can move about to exercise its body and mind. The 'Five Freedoms' defines good animal welfare as:

- Freedom from hunger and thirst
- Freedom from discomfort
- Freedom from pain, injury or disease
- Freedom to express normal behavior
- Freedom from fear and distress

According to Webster, "*The welfare of an animal is determined by its capacity to avoid suffering and sustain fitness*"^{2,3}. The Concise Oxford Dictionary^{3a} describes suffering, "*to undergo or experience pain or loss or damage or disablement*" and includes mental as well as physical suffering.

Introduction

Therefore fitness for an animal includes mental and physical fitness. So welfare is not just about 'doing things' to make animals feel better and keep fit, such as feeding them well and inoculating them against disease; it's about giving animals some control over their environment^{1,2,3}. That control allows them to avoid pain and mental suffering and to maintain a degree of fitness compatible with self-preservation.

Measuring welfare is complex, but the scientific literature references a number of potential welfare indicators. For example, physiological indicators of reduced welfare can be an elevated heart rate or elevated cortisol level. A behavioral indicator of reduced welfare can be the occurrence of stereotypical behavior⁴.

A stereotypy is a repeated, relatively invariable sequence of movements, which has no obvious function⁴. Stereotypies are indicators of long-term coping problems. They have been described in battery-caged hens and in pigs⁵, circus tigers⁶, horses⁷, autistic children and prisoners⁸, and many other species on farms and in zoos, laboratories and other captive situations. Abnormal behaviors like stereotypies do not arise in the wild.

Broom and Johnson: *"In natural conditions, animals are constantly stimulated by changes in their physical and social environments. Where animals are brought under closer environmental control, on farms, in zoos, or in people's homes as pets, the levels of some of the components of stimulation are reduced, while others are increased"*⁴. Animals have specific expectations of the consequences of different activities. If these fail to materialize, the animals cannot activate their own array of controlling procedures⁴. Some animals respond to a lack of stimulation and a lack of control over their environment with apathy, others with stereotypies or increased aggression⁴.

Both a lack of stimulation and a lack of environmental control are inherent in circus life. Stereotypies are particularly evident in captive wild species but are also seen in domestic animals, such as farm animals and horses.

Broom and Johnson: *"...in most cases we do not know whether a stereotypy is helping the individual to cope with the conditions, has helped in the past but is no longer doing so, or has never helped and has always been a behavioral pathology. But in all cases the stereotypy indicates that the individual has some difficulty in coping with the conditions, so it is an indicator of poor welfare"*⁴.

Another aspect to consider in the response of animals to transport, captivity and confinement is stress, or *"stimulation beyond the capacity for complete adaptation"*⁴. When an animal's coping mechanisms are taxed beyond endurance and break down, the result is stress and *distress*.

Living in such confined conditions in the circus, it is little wonder that many animals in circuses go out of their minds; we call it 'circus madness.' ADI field officers have witnessed and recorded large numbers of animals exhibiting such disturbed behavior, including pacing up and down, weaving from side to side, head-bobbing and running in place.

Read this report in conjunction with the DVD *Stop Circus Suffering* (2008), which includes some of the disturbing video footage collected during the course of the pilot investigation. The video is available from ADI (www.ad-international.org) or can be viewed online at www.youtube.com/animaldefenders.



Photo © Animal Defenders International

Top: Chains restrict movement for elephants. UniverSoul Circus.
Bottom: Capuchin monkey on a chain. Bailey Brothers Circus.

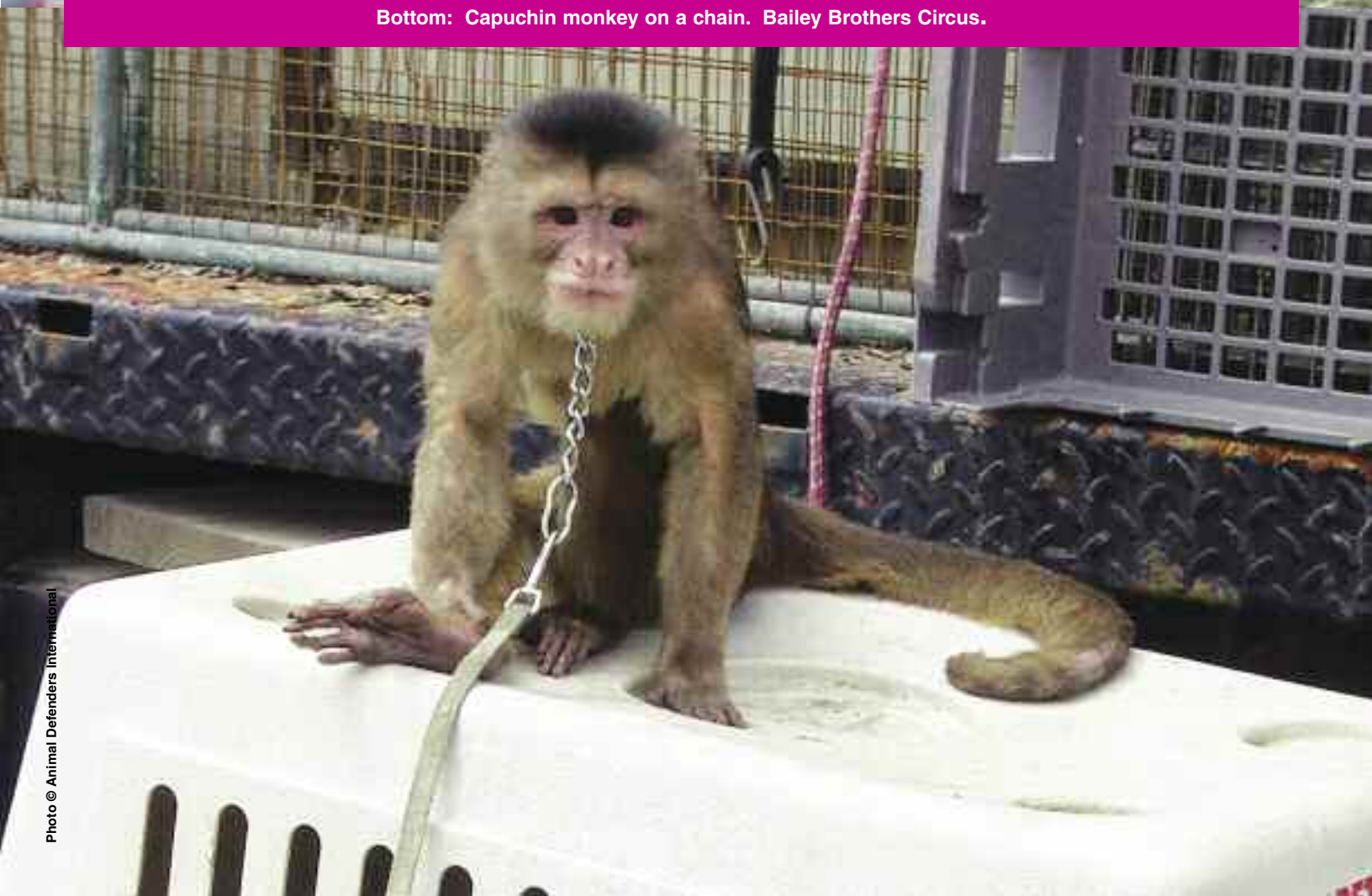


Photo © Animal Defenders International

2. The Traveling Environment

We examine here the issues and challenges raised by the need to adapt both animal accommodation and animal care practices for the traveling environment. These include:

- 2.1 Long tours, limited periods in each location
- 2.2 Portable accommodations
- 2.3 Challenges presented by frequent transportation
- 2.4 Extended periods in transporters
- 2.5 Public safety: animals in close proximity to people
- 2.6 Control of animals and potential for conflict

While attempts may be made to manage these challenges, we submit that the practical difficulties they present are an integral part of the traveling circus and therefore cannot be completely eradicated.

2.1 Long tours, limited periods in each location

Traveling circuses, by definition, spend most of the year on tour, usually eight to nine months. U.S. circuses may spend longer on the road than any other circuses in the world. For example, the Bailey Brothers Circus started a tour in Mexico before heading into the U.S. and did not return to their permanent quarters for almost eleven months. They took a six-week break and then departed again.

Generally, a circus will spend between a few days and two weeks at a particular location, sometimes longer. For example, during May 2008, the Ringling Brothers and Barnum & Bailey Circus Gold Tour planned to visit seven locations, the Red Tour three locations, and the Blue Tour five locations. During April 2004, The Bailey Brothers Circus stopped at eleven different sites in four states: Texas, Oklahoma, Kansas and Missouri.

These animals are therefore spending almost their entire lives in temporary accommodations, suffering long and arduous journeys, with little free time and little opportunity to express their normal behavior patterns.

2.2 Portable accommodations

A circus needs to be able to set up and dismantle accommodation on a weekly basis. Caging and fencing therefore, need to be collapsible, small and relatively lightweight. The very nature of the business puts restrictions on animal facilities. Even when circuses are moving from one fixed venue to another, circus personnel must dismantle and set up all of the animal and business facilities in the new location.

It might be argued that if an unlimited number of large vehicles were available, large and complex animal environments might be made portable. However this would involve a cost to the animals' welfare, as they would probably have to spend even longer waiting to be unloaded as the workers erected the more extensive and complex enclosures and caging.

The character of the site can also have an impact on animal welfare, e.g., parking lots or industrial areas. Animals tied on concrete or asphalt will suffer a poorer environment than those in a field. Busy downtown activity adds to the circus noise, lights, visitors and vehicles that can disturb animals attempting to rest. The proximity of incompatible species, such as predators in sight of prey species, raises welfare issues. Such compromises can be difficult to avoid in small spaces.

2.3 Challenges of frequent transportation

On a regular, often weekly basis animals must be loaded onto transporters and driven to a new location. The common circus routine involves animals being loaded in the late afternoon on a Sunday, remaining in their transporters until all of the tents and equipment are packed and loaded and the circus is driven to a new location, and they are not unloaded until the next morning or even afternoon⁹.

It is inevitable that some animals will become sick or injured during the touring season. Some will travel while pregnant and some will give birth on the road. At best, sick or injured animals face a long journey back to the circus' permanent quarters to recover, but it is more common for the animal to continue the tour. The sheer size of the U.S. means that once animals leave their permanent facility, they are soon well beyond "the point of no return." In the event of sickness or serious injury, an animal is effectively compelled to remain on tour.

2.4 Extended periods in transporters

Animals suffer extended periods in vehicles due to the need to dismantle and pack cages, tents and equipment for travel and then, on arrival at the new location, unload and set up, before finally unloading the animals. Thus, even a short journey can entail several hours in vehicles for the animals. This extended confinement represents poor animal welfare,



Photo © Animal Defenders International

Top: Reluctance on moving day. Bailey Brothers Circus. Bottom: Life on the end of a rope. Bailey Brothers Circus



Photo © Animal Defenders International

The Traveling Environment

causing suffering. Our observations include: a Shetland pony in a trailer for 25³/₄ hours when the journey was 5 hours; lions and tigers in cages for 19 hours for a 5¹/₂ hour journey; elephants in a trailer for 19¹/₂ hours for a 5 hour journey; a bear in a trailer for 39 hours with just one 15 minute break because the circus was relocating and setting up; camels in a trailer for 14 hours for a 3¹/₂ hour journey; a sick elephant in her trailer for nearly 18 hours for a 45 minute journey. A circus which boasted that its animal welfare policy limited journeys to 25 miles and that *“the whole process is over in less than two hours”* was spot checked and found to be keeping horses on transporters for almost 5 hours⁹.

When animals are moving to and from the circus to fulfil additional commitments – for example elephants giving rides at fairs – it can significantly increase time spent in transporters. For example in the U.S., the Swain elephants with Bailey Brothers Circus spent a whole day inside the trailer, traveling to a Hindu festival to provide rides. Two days later, they traveled from Austin to Kansas and did not leave the trailer for the entire day. As a result, in a 72-hour period they only left their transporter for six hours, and that had been to give rides at the festival. Following this they were driven to Butler, Missouri and were not let out of their trailer until noon. One elephant was immediately chained up outside and only released for the afternoon show.

2.5 Public Safety: animals in close proximity to people

The temporary nature of traveling animal circuses and the close proximity of dangerous animals to the public mean that these shows can never be entirely safe. Around the world, circus workers and members of the public, including children, have been killed and maimed by circus animals. Lions, tigers and elephants have all escaped.

The 2007 tragedy at the San Francisco Zoo showed how agile big cats can escape even a purpose-built facility, yet in Minnesota we saw tigers with Shrine Circus performing in an uncovered ring cage. In New York state three elephants with Circus Royale performed at a venue which necessitated them walking from their enclosure down a public road twice a day. Ringling Brothers Barnum and Bailey Circus travel on their own train, which means all the animals need to be marched through public and traffic to the venue – good for publicity but not necessarily highway safety. Elephant enclosures were basic and lacked secondary fencing and at Bailey Brothers Circus in Oklahoma and Kansas – one elephant repeatedly escaped. Members of the public were able to approach and feed the Bailey Brothers Circus elephants, which were often unsupervised, and at Shrine Circus in Minnesota a single strand of electric tape separated three, often unsupervised, elephants from a school playing field.

2.6 Control of animals and potential for conflict

During an average performing week animals need to be moved from their living quarters to the circus ring to perform, typically twice a day. This entails moving large and potentially dangerous animals across open ground, from their living quarters to the ring.

This transfer from cage to circus ring gives rise to two factors that can result in suffering to the animals. Firstly, the workers are under pressure to get the animals into the ring on time, and second, the need to keep the animals moving to prevent them identifying opportunities for escape. As a result, the workers (who are often untrained general hands and not necessarily animal presenters or trainers) can abuse the animals due to anxiety, stress and a lack of understanding of the species that they are handling⁹.

Generally, groups of elephants are led (or chased) through the encampment to the big top very quickly, so as minimize the risk of their being out in the open for too long. Although some animals such as single elephants who are used to the routine can appear calm, without close discipline any minor event or sight of something unusual can cause a panic or stampede⁹.

Nondomesticated species traveling with circuses such as lions, tigers, bears and elephants have not been bred over generations for compliance, and their wild nature can make them unpredictable. As a result, animal movement around the circus is commonly accompanied by shouting, banging bars, threatening, hitting and whipping by the handlers⁹.

To summarize:

- The nature of a traveling circus, with the restrictions on cage sizes and other limitations, creates an environment where the basic welfare needs of the animals cannot be adequately met.
- Animals may have to share their trucks with circus equipment, restricting space even further.
- Exercise enclosures, if erected, are frequently not made available to some or all of the animals due to time restrictions, or not enough space, or competitive or aggressive animals.
- Animals are frequently transported to different parts of the country, meaning long journeys.
- Animals are left in their trailers for many hours longer than their journey, as they wait for facilities to be erected.
- Animals are vulnerable to abuse by inadequately trained staff, who may be working under time pressure.



Photo © Animal Defenders International

Top: Chrissie and Boo with Bailey Brothers Circus. Bottom: Dogs with Bailey Brothers Circus.



Photo © Animal Defenders International

3. Pilot Study: Animals in Traveling Circuses in the U.S.

ADI studies the use of animals in traveling circuses all over the world. Methods used include observations, videotape and photography by our field officers, who work undercover in circuses. We relate our findings to the published scientific evidence on animal welfare and behavior, to inform government or administrative decision-making (see appendix).

Together, these studies have revealed consistencies in working practices throughout the industry. Indeed the differences in working practices, animal care and training methods between the circus industries of Europe, South and North America differ in little more than presentational ways. This is not surprising, given that animal living quarters need to be completely portable so any scope for development is very limited. The tricks being taught to the animals are broadly the same; presenters and animals move throughout the industry, and the timing of shows follows the normal pattern of the working week and weekends. Trainers frequently come from Europe and South America to present animals here in the U.S.

The United States is a key circus industry base with global connections. We therefore considered that it was important to conduct a short pilot study of the U.S. circus industry, with a view to using our data and expertise to assist and inform decision-making at the local and federal government levels.

ADI field officers tracked seven major U.S. traveling circuses, one static circus in Florida, and a static circus festival in Wisconsin. The traveling circuses moved through California, Florida, Georgia, Illinois, Kansas, Michigan, Minnesota, Missouri, New York, Oklahoma, Texas and Virginia in 2003, 2004 and 2005. These were selected at random and provide a representative sampling of the different circus operations in the U.S.

We found a defensive industry in which staff instruct the public that video cameras or videophones are not allowed, they block the view of people filming, and they conduct searches. One trainer was observed checking who was watching before giving an elephant a savage beating. Our field officers observed a range of animal abuse and poor welfare.

3.1 Physical and Social Deprivation

- Severe confinement and restriction of natural behaviors among all species observed including elephants, tigers, monkeys and ponies.
- Lack of free exercise among the species observed.
- Isolation of herding species like zebras.
- Chaining of elephants for most of the day, and for entire days when they were not performing, restricting their movements to a few steps backwards or forwards.
- Bare chains used on elephants' legs.
- Little apparent effort to ensure that the locations the circuses used were suitable for the animals' needs.
- Tigers living in cages on the backs of trucks, with space per animal little larger than the animals themselves.
- Ponies not given food and water for up to eight hours while giving rides to children.
- Lack of free access to water, especially for elephants.
- Excessive periods in trucks, before, during and after the journey.
- A reptile's mouth was taped shut in order to allow him to be used for photographs.

3.2 Physical Abuse

- Elephant hooks (ankuses) used universally to control elephants.
- Elephant hook used to punish elephants.
- Electric shocks given to elephants during training sessions.
- Electric shocks applied to the stomachs of elephants as they walked to the big top.
- An elephant hacked in the leg with a golf club so that she fell to her knees.
- Elephants beaten with a hosepipe and broom handle.
- A tiger cub smashed in the face to make him "behave."
- Elephants crying out and trumpeting as they were forced to pull big top tent poles and vehicles.
- An elephant dragged down with vicious blows and then kicked in the face as she lay on the ground.

3.3 Animal Health and Welfare

- An elephant continued to perform with an open sore on her face.
- A pony with a bleeding leg continued to give rides to children.

Profile of Species Found in U.S. Circuses

The aim of this table is to provide a profile of the different species being used in U.S. circuses during our observations. It helps to provide a picture of the number and species of animals that might appear at traveling shows on any given day. A head count was taken of animals in our sample of nine circuses, with the data here representing the highest number of different animals observed on a single day at a single circus. The figure given for Ringling Brothers and Barnum & Bailey Circus is for a single touring unit – in 2008 this circus has three shows touring under the unit names Red, Blue and Gold. Head counts for this table took place during visits in 2004, 2005, 2006.

Total Number of Animals

Bailey Brothers Circus	34	Clyde Beatty Cole Brothers Circus	35
Hanneford Family Circus	11	Ringling Brothers and Barnum & Bailey Circus	78
Circus Royale	20	Shrine Circus	15
Sterling and Reid Circus	62	UniverSoul Circus	19
Circus World, Wisconsin	47		

Species used in sample of nine US circuses – 321 animals

Alligator/caiman	7	Alpaca	1	Cow	6
Camel (Dromedary, Bactrian)	9	Caracal Inyx	2	Cat (domestic)	7
Dog	51	Elephant (African 9, Asian 22)	31	Emu	2
Goat	44	Horse/pony/donkey,1/mule,1	73	Kangaroo	1
Leopard	4	Lion	1	Llama	10
Monkey	7	Panther/ black leopard	1	Pig	1
Sheep	5	Snake	10	Tiger (Bengal 25, White 11)	36
Zebra	12				

Comparison of the Use of Wild/Exotic and Domesticated Species

This sample indicates a high percentage of wild and exotic species (elephants and tigers are especially popular – 20% of all animals in the sample), compared to domesticated species, such as dogs and ponies.

Domesticated species – 58% Wild/exotic species – 42%

- Ponies reported with, for example, swollen eye, breathing problems, walking problems or in need of veterinary attention.
- An elephant fed cotton candy and Coca-Cola. She was also seen eating plastic bags, cans, pieces of rubber and other debris, sometimes provided by the public.
- A horse allowed to eat debris, like plastic bags.
- Disturbed stereotypic behavior, such as head bobbing and swaying among elephants and pacing by tigers.

Public Safety

There were also issues of public safety. We found generally poor containment of animals and/or restriction of public access to them. Both animals and members of the public are at risk when animal facilities and supervision are poor.

For example when an elephant enclosure adjoined a school playing field, there was only an electric tape, no staff member permanently on hand and no secondary barrier. In another instance, members of the public were vulnerable when feeding an elephant. One elephant had learned to test the electric fence around her enclosure and made repeated attempts to escape. When she managed to escape, she was recaptured by workers with elephant hooks. She was punished by being chained by the leg to a truck. When confined she would throw hay, dung and stones at both workers and the public. Another cause for concern were elephants being walked twice a day down a road used by traffic. One circus providing elephant rides, was walking them alongside cages full of tigers. Public safety can be an important animal welfare issue, since the security and contentment of the animals is dependant upon good accommodations and supervision when the public has access to them.

The animal suffering outlined in this report is part of a pattern of the circus industry globally. However, there are factors in the U.S. that increase the stresses, strains, suffering and ultimately the abuses that the circus animals endure.

Observations from the pilot study appear throughout this report in the panels.

4. The Scientific Evidence

4.1 Effects of Transport

A scientific review of research on the transportation of horses concluded: *“Although some horses adapt to transport much better than others, transport is generally associated with lower reproductive rates, increased disease incidence, a temporary reduction in athletic performance and the alteration of many other physiological traits that are indicative of stress.... Transported horses can be subjected to a wide range of potential stressors, including isolation from herd-mates, forced close proximity to unfamiliar or aggressive horses, novel or threatening surroundings, exposure to new pathogens, restraint of normal activity patterns, forced adoption of an abnormal posture, extremes in temperature, water and feed deprivation, and blowing dust and particulate matter. Transport has long been associated with morbidity in horses”*¹⁰.

These problems occur across a wide range of species for varied durations and conditions of transport and are a key factor in traveling circus life, a serious welfare problem for animals.

4.1.1 Exotic Species

- Alpacas and other camelids, who traveled for just 30 minutes, suffered from a resulting potentially dangerous hormone disorder called hypercortisolemia (Cushing’s syndrome). When the trip ended at a location familiar to the animals it still took four hours for their cortisol hormone levels to return to normal¹¹. Circus animals are often transported for longer periods and, unlike these alpacas, transported to unfamiliar locations.
- Tigers in circuses show a wide range of abnormal behaviors and coping strategies while traveling. One of the most common stereotypic behaviors is pacing. In one study pacing increased as travel time increased^{6,9}.
- A study of captive black rhinoceroses demonstrated a connection between transport and the immediate development of a skin disease¹².
- Many species are known to suffer from ‘capture myopathy’, a syndrome that occurs in wild mammals and birds, whether free-ranging or captive, associated with the stress of capture, restraint and transportation. In many animals the syndrome is characterized by clinical depression, muscular stiffness, lack of coordination, paralysis, metabolic acidosis and death¹³.

4.1.2 Domestic Species

There are numerous studies on the effects of transportation on horses and other animals used in agriculture. This data also applies to animals in traveling circuses.

Horses

Substantial evidence has shown that horses suffer during transportation. Equine expert and veterinary behaviorist Dr. Paul McGreevy discusses transportation of horses¹⁴:

Elephant Animal Care Practices Bailey Brothers Circus



Animal Defenders International

An ADI field officer worked with Bailey Brothers for two months to gain a picture of the routines for the care of two elephants: Chrissie, a 20-year-old African elephant belonging to Billy Swain, and Boo (or Baby Ruth), a 35-year-old Asian elephant belonging to Mike Swain. Mike Swain presented both elephants during the tour. The animals were on the road for almost 11 months.

Accommodations:

Day: electric-fenced enclosure (39 ft, 4 ins x 18 ft, 8 ins).

Night: inside trailer (18 ft, 4 ins x 7 ft, 10 ins); always chained.

Night (when warm): electric-fenced enclosure, one back foot chained to trailer. This happened only three times during two months of observation. ***The elephants were chained at least 54% of the time (see table).***

Typical Daily Routine

10-10:30a.m.: The elephants are unshackled, then let out of their semi/trailer and put in electric-fence enclosure. Each elephant is given around 40-50 gallons of water, having not had access to water for the previous 13 hours (overnight). The elephants are given hay if the enclosure is concrete or allowed to graze if standing on grass.

3:30p.m.: Elephants are hosed down and the toenails bleached. They are also washed twice a week, using detergent. Their toenails were filed down once during the two-month period. One of Boo’s was filed so low that it bled. They were body-oiled with vegetable oil once during our observations, to stop the skin from drying out. If they were to be used for elephant rides they would then be dressed (i.e., a rug and saddle were tied to their backs) and put back into the enclosure.

4p.m.: They are used for elephant rides for an hour.

5p.m.: First show. Chrissie and Boo make a brief appearance.



7:30p.m: Second show. On Saturdays and Sundays the first show starts at 2p.m., with a total of three shows on Saturday and two on Sunday. This program slashed the elephant's unchained time to just two hours. In addition, whenever Mike Swain left the circus site or was inside his trailer for more than 30 minutes, Chrissie would be chained by a leg to the semi. This would happen every day for two to four hours. This was because she made repeated attempts to escape. This chain was only 2½ feet long, severely restricting her movements. After each performance the elephants would be fed three scoops of grain each.

9:30p.m: The elephants would be given 30-40 gallons of water, then put into the trailer for the night and chained by a hind leg.

Additional Restriction of Movement

Any additional activity by the circus further restricted these animals' options to manipulate their own environment.

For example, when the circus moved to another location, the elephants were moved out a 6a.m., still in their trailer from the previous night. They remained chained in the trailer for the duration of the journey and then on arrival for another two to three hours while the new site was set up.

Other engagements would result in even more restriction of movement. The elephants once spent a whole day inside the trailer, traveling to a Hindu festival to provide rides. Two days later, they traveled from Austin to Kansas and did not leave the trailer for the entire day.

They had been out of the trailer for only six of the previous 72 hours, and that had been to give rides at the festival.

The next day, the elephants were driven to Butler, Missouri and were not let out of their trailer until noon. Chrissie was immediately chained up outside and was unchained only for the afternoon show.

Behavior

Boo: exhibited abnormal, stereotypic behaviors, including repeated swaying, head bobbing and placing her trunk in her mouth. This usually started around 2p.m., or when left alone in the enclosure while Chrissie gave rides. She also swayed a lot at night in the back of the trailer and during show preparation. When Mike Swain used an aggressive verbal tone Boo placed her trunk in her mouth.

Chrissie: Similar to Boo, she exhibited stereotypic behaviors, including swaying and head bobbing, especially when on her own in the enclosure. When the trailer door was not secured properly during the day she would bang on it with her trunk. She often threw objects (hay, stones, feces, dirt, rubber dishes) at people, both circus workers and members of the public. She would often eat rubbish found in her enclosure, such as plastic and paper bags. When fed by the general public she would snatch the plastic/paper bag containing the food and eat the entire thing. She was occasionally aggressive towards workers and always tried to escape if the electric fence was malfunctioning.

This typical daily routine and the table below, are based on observations made in April and May 2004. This kind of elephant management is similar to practices observed in other circuses, worldwide.

Time spent in different types of activity or accommodations during period of observations:

	Boo	Chrissie	Worst days observed for both elephants
Chained	54%	66%	100%
Preparation, performing or rides	12%	12%	0
Loose in enclosure (grass or concrete)	34%	22%	0

The Scientific Evidence

"Horses brace themselves against and in anticipation of the changes in momentum during road transport by adopting certain body postures (notably the base wide stance). Efforts expended by horses as they continually adjust their posture during transit reflect both muscular and emotional stress related to road conditions and the drivers' behavior. All of these efforts are readily evaluated by monitoring heart rates during transport. Horses have been shown to have higher heart rates in a moving vehicle than in a stationary vehicle, and although heart rates decreased significantly during a road journey, they did not return to resting levels. Transport stress may increase susceptibility to diseases, including an equine herpes virus and salmonellosis infections".

- A study of the effects of a 24-hour transport in horses showed that *"Plasma cortisol concentration increased during loading and the first 3 hours of transport and continued to rise throughout the 24 hours, to peak at the termination of transport....after the stressor [i.e., transportation] ceased, cortisol dramatically declined"*¹⁵.
- Many studies show that transport induces weight loss in some animals. Immediately following transit in one study, horses showed a 6 percent weight loss. The investigators thought this could be due to *"heat dissipation, sweat loss, and decreased gut fill during transit,"* but there was still a 3 percent weight loss 24 hours after the transportation period¹⁵.
- The immune systems of horses are compromised by the effects of transportation. Stull and Rodiek¹⁵ concluded that this could result in increased susceptibility to infectious diseases. A similar study by Stull et al¹⁶ found elevations in cortisol concentration, white blood cell count, and other physiological changes, which led to the same conclusion. It also acknowledges that *"a small window of immunological uncertainty follows long-term transportation, enhancing the potential risk of infectious disease in susceptible individuals."*
- Aggression among horses increases during transportation, especially when many horses are transported together¹⁷. About 20 percent of all horses receive some type of injury during transportation, most of which occurs to the head and face^{18,19}. Another paper reports *"many incidences of aggressive horses repeatedly biting an adjacent horse in an apparent effort to get the horse to move away"*¹⁷.

Cattle

Transport is thought to be one of the most potent stressors for cattle²⁰. Stressors involved in the transportation of cattle result in altered nutritional status and animal behavior, reduced body weight gain, feed consumption, immune function and increased mortality²¹.

- Long-term transportation in cattle has been found to increase the secretion of ACTH (adrenocorticotropin hormone), a regulator of immune responsiveness, and therefore to exert a negative effect on the immune system. When cattle are rested and fed on their truck when it is stationary, their ACTH levels remain high, coming down only when they are removed from their truck and rested and fed in stalls for 24 hours²².
- Transport stress induces an increase in thyroid and adrenal activity in cattle that is evident even after a short trip and continues to increase after long-distance transport²⁰.
- Long-term transportation in cattle results in an increase in heart rate and body temperature²².

Sheep

Transport compromises the welfare of sheep. Some studies have found experiences associated with loading to be particularly stressful to sheep.

- There was an increase in the core temperature of sheep after 2.5 hours of road transport²³.
- Sheep showed heart rate and cortisol increases in response to transport^{24,25,26}.

4.1.3 The Effects of Transport on Reproduction

Animals in circuses are transported throughout their lives, regardless of age, condition or reproductive status. Transporting animals while pregnant is a cause of suffering and health problems, as discussed in the scientific literature:

- Pregnant horses transported for nine hours showed signs of prolonged stress associated with abortion or reabsorption of early pregnancies, signaled by a change in the concentration of ascorbic acid in plasma and tissue²⁷. The study also showed that transportation caused increases in serum progesterone and cortisol, which are also indicators of stress.
- Thirty mares were tested daily throughout one normal estrous cycle. There was an increase in LH concentrations in transported mares (LH is luteinizing hormone, which regulates the release of progesterone and estrogen) and an increase in cortisol and concentrations of plasma ascorbic acid. The paper concludes that the 12-hour transportation of mares induces *"hormonal and plasma ascorbic acid responses indicative of stress"*²⁸.

While it is a common view that horses and other animals become accustomed to transport, we have not seen any scientific evidence of this. Just because an animal undergoes an experience repeatedly does not make the experience less



Top: Macaque monkey, Sterling & Reid Circus. Bottom: Hanneford Family Circus elephants enter indoor market.



The Scientific Evidence

traumatic. It may in fact make the animal more sensitive to the trauma, and it might be more difficult to identify this.

Many of the scientific papers we have reviewed describe the effects of a single journey, but since circus animals must endure multiple and frequent journeys, at least some of these effects will be multiplied.

4.2 Animal Care Practices and Confinement

Poor animal care practice in the circus may not always be intentional, but it is basically unavoidable, given the mobile nature of circuses and the temporary enclosures, living spaces and trailers that the animals must inhabit.

Even reptiles, which are extremely difficult to care for due to their highly specialized needs such as specific temperature and light requirements, are currently legal in circuses.

The constant moving and the changing environmental conditions cause disruption of normal behavioral patterns, which are likely to leave animals vulnerable to stress and disease. For example, McGreevy¹⁴ describes how the timing of sleep is very important in horses. Horses prefer to sleep in the early afternoon, so there should be a minimum of activity at this time. However, in the circus, transport, training and performances do not take this into account.

Enclosures with a restricted amount of space can create a stressful environment for an animal. When animals are housed in groups, the space restrictions can precipitate increased aggression between individuals, where lower ranking animals cannot escape, and more injuries occur through fighting²⁹.

It is widely accepted by the zoo industry that environmental enrichment – the process of improving or enhancing animal environments and care within the context of the animals' behavioral biology, i.e., keeping the animals as close as possible to their natural environments³⁰ – is essential to the welfare of captive animals.

Environmental enrichment is a dynamic process, requiring species-specific modifications, which circuses cannot provide in a meaningful way. The high level of abnormal behavior observed in circus animals testifies to the absence of useful environmental stimulation⁹.

ADI has videotaped stereotypic behaviors in almost all circus animal species, including horses, ponies, llamas, camels, giraffes, elephants, lions, tigers and bears.

4.2.1 Elephants

Elephants are the largest mammals walking the earth. In the wild they travel up to 13 miles a day, eating a variety of foods, bathing, enjoying a close-knit family life with complex social interactions. As these herds move, they transform the landscape, helping the regeneration of their natural environment.

Elephant Accommodations: U.S. examples

Elephants are designed to travel long distances each day, browse a variety of plants, and have a highly developed social structure. The difficulties of containing large, powerful and potentially dangerous animals in temporary or improvised accommodations has a severe impact on their welfare. The circus routine is to chain elephants overnight by a front and hind leg, severely restricting movement to a pace or two backwards and forwards. This period generally lasts from when the animals finish their last performance to the next morning, often 12 hours. During the day, when not performing, giving rides or posing for photos, the most common practice is to enclose the elephants inside a small electric-fenced area. This can be on asphalt, concrete or grass.



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UniverSoul Circus, Detroit, Michigan

One African and one Asian elephant, chained by two legs, barely able to move. During two days of observations these elephants were shackled like this when not performing. Both elephants displayed stereotypic behaviors, i.e., abnormal, repetitive, pointless movements. Some experts believe that such behavior indicates that the animal is failing to cope with its environment, it is perhaps trying to relieve the discomfort and frustration of standing in one place for long periods; these repeated movements become a mental habit.



Animal Defenders International

Clyde Beatty Cole Brothers Circus, Atlanta, Georgia

Two Asian elephants restricted to a small electric-fenced grass enclosure – barely a couple of elephant paces across. All that was provided was shade, water, hay and access to their trailer.



Circus Royale, New York State

Nowhere to run, nowhere to hide. African elephants huddled in the center of a tiny electric-fence enclosure, standing on asphalt in a parking lot, with no visible access to water.



Shrine Circus, Minnesota

Three African elephants in a tiny electric-fenced pen during the day only. The elephants stand on grass, but there is no stimulation or access to water. The pen is on the edge of a school playing field with no secondary fencing and occasional attention by circus staff to prevent children from walking up to the animals.



Circus World, Wisconsin, annual four day circus festival

Despite being a fixed site, this elephant enclosure for three Asian elephants has similar limitations as those of touring circuses – little space or enrichment. The lower picture shows how quickly an enclosure can become degraded when there is not enough space for elephants to roam.



Ringling Brothers and Barnum & Bailey Circus, Los Angeles, California

The largest group of Asian elephants we observed: 11 elephants standing in a parking lot with little to occupy their interest and no significant enrichment. There appears to be more space than they are using, but in fact the area is divided by an electric wire. Even with access to the whole area, the space would still be inadequate.

Ringling Brothers and Barnum & Bailey Circus, Michigan

Another town, another parking lot or small tent for an elephant to call "home."



The Scientific Evidence

Yet in the circus, these intelligent, social beings are commonly shackled to the ground by one front and one rear leg in order to control them. They can barely take a step or two, forwards and backwards, and cannot exhibit most of their typical behaviors. It also restricts social interactions, because contact is limited to the elephant shackled next to them³¹. Although many circuses now claim to give their elephants regular access to a pen or outdoor enclosure, the elephants' free time is limited when the circus is constantly on the move, and the elephants have to be prepared for their performances each day. At night, elephants are commonly chained from the time the workers finish their day to when they arrive the next day. This can mean over half the elephants' time is spent chained to a stake in the ground or inside a truck⁹.

Even when elephants are left free in exercise enclosures, these are too small. Consequently, stereotypies occur in captive elephants, regardless of the system of animal care used.

- One study of circus elephants found that, *"Weaving was the most common stereotypic behavior in the elephants, regardless of whether they were picketed [chained] or penned"*³².
- Another study which saw stereotypic behaviors in all the elephants observed, concluded that *"the welfare of closely confined elephants can be poor"*³³.
- High levels of stereotypic and abnormal behaviors were observed in all the elephants involved in the Kirkden and Broom study, which was undertaken in a circus holding facility. This study described how stereotypic behavior differs between individuals and that changing the methods of animal care practices (i.e. shackling versus unshackling), only reduces stereotypies in some individuals. For some elephants it was impossible to identify one underlying cause of stereotypy. Many aspects of the circus environment were found to cause stereotypic behaviors in elephants, such as the lack of social contact, anticipation of food or another significant predictable event, the presence or absence of people, the size of their enclosure, and their proximity to other specific individual elephants. It was also noted that in addition to stereotypies, some circus elephants show other types of abnormal behaviors, such as prolonged inactivity, probably as a result of being confined in an unstimulating environment³³.

ADI observation data and videotapes document stereotypic behaviors in all circus animal species we have studied.

4.2.2 Browsing and Grazing Animals

In the wild, browsing and grazing animals spend a large part of their day eating. Circuses cannot provide permanent outdoor paddocks for grazing so these animals spend much of their time confined to indoor stalls or tied to trailers. ADI has found that even when outdoor paddocks are provided, they can be on concrete, asphalt or whatever surface is available. Sites tend to prioritize audience accessibility and needs rather than cater to animals. This severely restricts the ability of these specialized animals to carry out their natural feeding behaviors.

In the wild, giraffes use their tongues to remove tree leaves and avoid thorns. The absence of this specific challenge in captivity creates a behavioral vacuum and the resultant frustration can cause oral stereotypic behaviors, such as excessive licking, bar biting and tongue playing³⁴. The number of hours an animal is housed indoors can be used to predict the occurrence of stereotypic licking behaviors in browsing and grazing species³⁴. A frustrated feeding motivation may also result in motion stereotypies, such as pacing³⁴.

Indoor enclosures mean less variety of stimulation than outdoor enclosures, conditions that are very important for reducing the occurrence of stereotypic behaviors in general³⁴.

- Farmed deer housed indoors during winter exhibit higher levels of aggression, resulting in more injuries to each other, than deer who are confined outdoors in a field. Indoor deer also show an increase in behaviors like 'chewing' each other and their enclosure³⁵.
- Dama gazelles, particularly the dominant individuals, show more aggression towards their herd-mates when housed in smaller enclosures²⁹.
- A survey of 257 zoo-housed giraffes and okapis found that almost 80 percent of the animals showed at least one form of stereotypy³⁴.
- A study of captive black rhinoceroses³⁶ found that they are highly sensitive and respond negatively to the environment and/or social conditions in captivity:
 - Captivity influences the behavior and breeding success of male and female black rhinos differently.
 - Males are affected by a limited enclosure area and by odors, such as a chlorine disinfectant.
 - Female black rhinos are sensitive and react negatively to some aspect of concrete enclosure walls, either the acoustical properties or the visual separation from other black rhinos.
 - A high degree of public accessibility along the perimeter of their enclosures is a potential stressor for both sexes, but especially males. Mortality in captive black rhinos was strongly linked to the percentage of public access along the perimeter of their enclosures.

Browsing and Grazing Animal Care Practices: U.S. examples

Horses, ponies, camels, llamas and similar animals usually spend their days tied up by short ropes or kept in small stalls. We found that only rarely are these animals provided with exercise enclosures. Their only significant exercise is in the ring during rehearsals or performances. Time pressures, including cleaning stalls, watering, brushing and saddling animals up for shows, make it unlikely that these animals can ever enjoy quality free time and space.



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Bailey Brothers Circus, Texas

Seven small Shetland ponies and a white horse, Snowy, were generally tied to a six-foot rope attached to a stake or a picket line (running line staked to the ground) without shelter during the day, or kept in a small pen (top).

Between 3 and 4p.m. five of the ponies were tied to the carousel to give rides to children until 9 or 9:30p.m (at least five hours) after which they were tied to the side of a trailer.

Two ponies, Patches and Rebel, were often suspended from this work due to their aggressive behavior, such as bucking. One day, the pony ride attendant reported that the ponies didn't get enough rest, since they must work the carousel for five continuous hours. One pony had a swollen eye. Another kept trying to get down on her knees. A third had a breathing problem and was hyperventilating and gagging. Snowy had cuts and sores which were attracting flies so a circus worker used Clorox bleach on the open cuts.



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Clyde Beatty Cole Brothers Circus, Georgia

This is the typical control of performing ponies the world over – on a short tether against the side of a wagon.

Circus World, Wisconsin

Below left: Different species share a pen.

Below right: Horses and ponies in circuses get basic stabling, but do not enjoy the benefits of access to pasture provided to equines in other commercial contexts.



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The Scientific Evidence

Another study found that captive black rhinoceroses appear predisposed to a skin disease not found in wild black rhinos. This disease was linked to periods of physical or environmental stress, such as capture, transport, sudden cold or the introduction of a new rhino¹². It was also suggested that the unvaried diet of captive rhinos, compared to that of their wild counterparts may play a role in the development of this disease (in the wild rhinos have been observed to browse more than 200 species of plants).

These studies of browsing and grazing animals demonstrate the complexity of captive animals' needs and confirm that traveling circuses simply cannot address those needs.

ADI has recorded evidence of aggression in horses during transport and in stable tents. Some animals who are considered difficult or aggressive, like stallions, are not allowed into enclosures and therefore get even less exercise.

4.2.3 Carnivores

The scientific literature shows that carnivores, especially members of the cat family and bears, suffer from captivity. This evidence comes mostly from zoos, where the animals have a permanent residence. Most modern zoos now try to create a habitat as close to the animals' natural environment as possible.

The temporary nature of the accommodations in traveling circuses makes it impossible to provide the animals with a suitable environment. Therefore, any negative effects of captivity in zoos will be worse in circuses.

A study of captive cheetahs³⁷ found that:

- Captive cheetahs suffer diseases that do not occur in their wild counterparts. These diseases worsen after transport, suggesting an environmental effect.
- When the cats were moved between facilities for breeding programs, eight of the fifteen animals suffered an increase in corticoid concentration, and six exhibited a prolonged stress response. Of the seven animals who did not experience an increase in corticoid concentration, four had a single peak immediately after movement. The authors concluded that transporting the cheetahs caused the stress response.
- Corticoid responses increased when the cats were put on public display, and they decreased away from public view, thus indicating a negative welfare response to such exposure³⁷.

The results of this study are not surprising. Cheetahs in the wild are solitary, have large home ranges, and avoid human contact.

Carnivores frequently show stereotypic behaviors, such as pacing, in captivity. A study³⁸ looked at nine species of cats in eleven different enclosures at the Edinburgh Zoo. It found that *"stereotypic pacing was recorded at various levels in 15 out of 19 cats (79 percent), the levels varying between 1 percent and 32 percent of scans."* The complexity of the animals' enclosure was thought to play a big role in the incidence of such behaviors.

A study of leopards³⁹ found that relocating cats to new cages provoked an initial increase in adrenocortical activity and increased hiding behavior. The cats failed to adapt to a new environment.

Captive clouded leopards showed several signs of distress or poor well-being: a high number of stereotypic behaviors, apathy, self-mutilation (e.g., fur plucking and tail chewing), and intersexual aggression (i.e., mate injury and mate killing). They also achieved poor breeding success and experienced other health problems⁴⁰.

4.2.4 Primates

Nonhuman primates are our closest relatives. They are highly intelligent and live in close family groups. They suffer in captivity, just as we would. Most nonhuman primate species share more than 90% of their DNA with humans (*Homo sapiens*)⁵³. The chimpanzee (*Pan troglodytes*) DNA sequence differs from ours by 1-1.5%^{54,55}. Recent studies have revealed that 99.4 % of the bases are identical within the same genes in humans and chimpanzees. It has therefore been suggested that chimpanzees should take their place alongside humans within the genus *Homo*⁵⁶. The primate species vary in size by several orders of magnitude, and are adapted to widely different ways of life mainly in the tropics⁵⁷. Perhaps the most striking feature of all primates is their high intelligence.

Cotton-top tamarins can solve tasks that require the use of one object to attain another, for example the use of a tool to obtain food. Without training, they can discriminate between tools of different colour, texture, shape and material, in terms of their ability to retrieve food⁵⁸. Wild chimpanzees have been observed creating tools in order to feed on termites⁵⁹. Rhesus macaques can perform rudimentary arithmetic and think using symbols⁶⁰. Considered paramount among human cognitive abilities is the capacity to reason about what others think, want and see; a capacity referred to as 'theory of mind'.

Carnivore Accommodations: US examples

For circus lions and tigers, home is usually a cage on the back of a truck – around 8 ft wide by 40 ft long. The average space for each animal is about 6½ ft by 8 ft, barely larger than the animals themselves, which includes space to defecate. Some circuses provide ‘exercise cages,’ but these are small and usually contain nothing to interest the cats. The animals will get only an hour or two in this space, due to scheduling pressure during the work day.



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Clyde Beatty Cole Brothers Circus, Atlanta, Georgia

Seven tigers shared this bare cage on the back of a truck. There was no separate exercise cage, only an extra section of cage bolted onto the end, adding little more than 8 ft x 8 ft. ‘Exercise’ was the time spent in the ring. Not surprisingly, these tigers were pacing and displaying the repetitive movements of severely confined animals.



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Shrine Circus, Minnesota

Small wheeled cages like these are typically used to move big cats from their living quarters to the ring to perform. In this instance, the animals were kept in this extremely confined space for an extended period while elephant rides took place during the show’s intermission.

Sterling & Reid, Virginia

This three-month-old tiger cub was living with a seven-week-old lion cub and their trainer in his trailer. It is common for circus animals to be taken away from their families, with the trainer replacing the animals’ mothers and siblings. The young tiger was used as a prop for photos during the show, further distorting the animal’s natural behavior.

UniverSoul Circus, Detroit, Michigan

The living quarters for tigers on the back of a truck



Animal Defenders International

The Scientific Evidence

Rhesus macaques have been shown to possess an essential component of theory of mind – the ability to deduce what others perceive on the basis of where they are looking⁶¹. Chimpanzees show ‘cross modal transfer of information’ in that they can, for example, recognize by touch alone objects that they have previously only seen, and can understand and use abstract symbols in their communication⁶². Humans and chimpanzees differ in intellectual ability, but what differs is their degree of intelligence, not the kind of mental processes employed. There is no bold line separating human intelligence from chimpanzee intelligence⁶⁰. Chimpanzees have even learned and then taught other chimpanzees American sign language (Fouts).

Captivity affects different animal species in very different ways. There is however consensus among researchers regarding the higher risks of suffering for the species with more intelligence and cognitive abilities⁶³. It is clear that the impoverished environment and lack of stimulation in the traveling circus seriously compromises the welfare of these animals.

These are species for whom social contact with their own kind is a vital component of any environment. As primates ourselves it should be easy for us to comprehend the impact of social isolation or limited social contact on these species, since their social behaviors so often reflect elements of our own.

Chimpanzees display a range of postures and gestures similar to those of humans in similar situations. They greet with kisses and embraces, they play and reassure each other and express emotions including anger and sadness, they seek reassurance and comfort like humans. They hold hands, pat each other on the back, swagger, and shake their fists, tickle and laugh. Not only that, but they do so in the same kind of context as ourselves⁶².

There are similarities amongst other primates. For example during courtship capuchin monkeys use many of the same behaviors that humans do, such as gazing into each other’s eyes, tilting their heads, raising their foreheads and blinking their eyes⁶⁴. We primates are social. The macaque social system is based on specific rules for relationships and social behavior and rhesus macaques develop long-lasting social bonds that may endure a lifetime⁶⁵. Capuchin monkeys work together to gather food and then share the fruits of their labour, the kind of cooperation essential to human society⁶⁰. We nurture and teach our children over a long period. Peer play is important in the development of young rhesus macaque monkeys because it promotes social development. During play, chimpanzees learn about nonverbal and other forms of communication⁶⁶. Juvenile vervet monkeys display exploratory behavior (such as playing with a new toy) which is common to both vervets and humans⁶³.

Nonhuman primates have been found to be susceptible to various forms of stress, which might cause changes in behavior (e.g. social behavior, stereotypic behavior) and hormone concentrations (e.g. the corticosteroid level)⁶⁷. Stress may be psychological as well as physical⁶⁸. There is a clear danger of circus primates adopting stereotypic and abnormal behavior. Such behavior among primates has been observed in zoos, and has been attributed to a variety of factors⁶⁹. For chimpanzees, socially deprived individuals (e.g. those that were separated from their mothers at an early age) show reduced levels of normal behaviors and a higher level of abnormal behavior, as well as a wider range of abnormal behaviors⁷⁰.

A study into stereotypic behavior among primates in captivity found that the animals with the most marked stereotypic behavior were those that had been hand-reared by humans. The authors also found that animals that had been confiscated from touring zoos, circuses and animal traders exhibited higher levels of abnormal behaviors than did animals reared in larger, recognized zoos⁷¹. Hand rearing is popular amongst most performing animal establishments because it teaches reliance and compliance at an early age, and infant animals are popular with audiences and for photo opportunities. Logically there will be negative behavioral impacts from continually removing young animals from their mothers.

The demands of continual transport and readjustment appear to have been directly related to abnormal primate behavior, which itself usually indicates that the animal’s psychological welfare is at a suboptimal level⁶⁹.

Performing animal handlers require regular one-to-one contact with young primates to maintain control, dependence and obedience. The handler becomes the only source of food, water, and approval. Thus, trainers deprive performing primates of normal social contact with their own kind, locking them into a lonely world where food, water, and affection are handed out as a prize for compliance. The chimpanzee’s smile which you so often see is, in reality, a grimace of fear. It is a sad irony that it is our empathy for these creatures that is being exploited by the cynical trainer.

4.2.5 Domestic Animals

Circuses include many domestic animals, such as common pet parakeets (budgerigars), cats, dogs and horses, in their acts. Although there are few scientific studies on household pets that would apply to the circus situation, these animals are subject to many of the same problems as exotic species.



Primate Care and Accommodations: U.S. examples

Primates are highly intelligent, make tools, are arboreal in nature (living mostly in trees) and live in close-knit family groups. Family is important to primates. As their intelligence gives rise to the potential for escape, these animals are severely confined in traveling circuses. They are often separated from their own kind in order to reinforce dependence upon the handler as the only source of food, water, comfort and approval. Primates observed by ADI in circuses are kept in small cages or chained.



Sterling & Reid Circus, Fredericksburg, Virginia

While on public show in the petting zoo, two macaque monkeys were housed individually in cages 6 feet tall by 2 feet wide and deep. This is extremely small for such animals. The cages had limited enrichment, just a few toys and a perch. Overnight the animals were caged elsewhere.

Bailey Brothers Circus, Texas, Oklahoma, Kansas, Missouri, Illinois

The circus had four macaque monkeys and a solitary capuchin monkey (pictured) which were kept in small cages inside a trailer – even if the entire trailer had been devoted to living space for these primates it is unlikely it could be made adequate. The capuchin lived in complete isolation from its own species and was occasionally moved around with a chain attached around its waist.

Indicators of poor welfare may be less obvious in these domesticated animals than in captive wild animals, but evidence shows that they do suffer from poor animal care and confinement:

- Dogs have an inherent desire for social contact and are not suited to being confined alone in cages or kennels. Housing dogs alone results in boredom, under-stimulation and behavior problems. Visual and tactile contact with other dogs improves a dog's psychological well-being and alters negative behavior patterns⁴¹.
- Both domestic horses and captive exotic equids, such as zebras and Przewalski horses (native to Mongolia), show a variety of stereotypic behaviors when stabled or confined, including, crib-biting, wind-sucking, wood-chewing, weaving, pawing, trailer and door-kicking, self-biting and head tossing¹⁴.
- Domestic cats may show increased hiding behaviors as a response to stimuli or changes in their environment and to avoid interactions with other cats or people. They are more likely to respond to poor environmental conditions by becoming inactive and by inhibiting normal behaviors, such as self-maintenance (feeding, grooming and elimination), exploration, or play, than by exhibiting abnormal behavior⁴².

To summarize, the fact that an animal is of a domesticated species does not mean that it will suffer less when confined for long periods of time to a small space or in a box. Broom & Johnson: "...neither early training nor genetic selection can push the individual beyond its biological potential and a profound lack of stimulation is something to which no vertebrate animal is likely to be able to adapt"⁴.

4.3 Inappropriate Social Groupings and Isolation

It is vitally important to house species in appropriate groups. For many species social living provides more benefits than finding food or avoiding predation. It is a major source of stimulation and life enrichment. The social environment of many species represents a constant source of mental stimulation, the complexity and variety of which animal keepers cannot replace by any form of artificial environmental enrichment³⁰.

The Scientific Evidence

Changing social groups and dynamics and removing an animal for training, performance or transport can lead to periods of social isolation or can bring animals into contact with new groups. Often, individual animals are exchanged between circuses or lent to another circus for a season, resulting in long-term disruption of social groups.

Social species, such as elephants, are often kept in isolation, while animals who are naturally solitary, such as tigers, are commonly kept in groups⁶.

4.3.1 Social Isolation and Separation from Companions

Animals in circuses can experience different types of separation – separation from their own kind (especially problematic for social species) and separation from companions who may or may not be of the same species.

The detrimental effects of social deprivation and separation have been widely documented in many species and are known to cause behavioral and physiological indications of stress⁴³.

- In a study of social separation in giraffes, a male was removed from his two female companions. The females displayed protest behaviors, including increased activity, stereotypical behaviors, and increased contact with each other. They also showed decreased habitat utilization. These results were consistent with the findings of studies of other species, particularly nonhuman primates, where the first change in behavior is protest, characterized by increased vocalization, motion and stereotypical behavior, as well contact and clinging if the animal is housed with peers during the separation. Giraffes are not known to be highly social animals in the wild, yet their aversion to this kind of social separation proves that a complex social structure is not a prerequisite for social attachment⁴³.
- Spectacled bears have been documented displaying stereotypic repetitive head-tossing as a result of social frustration when they were prevented from interacting with other bears who were in close proximity to them⁴⁴.
- In the wild, elephants live in groups and display complex social behavior. The natural grouping of both African and Asian elephants is of a family unit, and the social bonds among the members of the family are very strong⁴⁵. Such family units are not possible in circuses, where elephant groupings are varied and changeable. Supporting this, a study on circus elephants found that the limited opportunity for social contact was the principle factor in the female Asian elephant's stereotypy³³.
- Piglets isolated from others showed increased sitting, pawing behavior and escape attempts and decreased activity, play and interest in novel objects. All these changes reflected negative impacts on the piglets' welfare⁴⁶.
- Social separation in cattle induced struggling and large increases in vocalization, heart rate and plasma cortisol concentrations. The mere presence of other cattle was sufficient to prevent struggling and vocalization, regardless of peer identity, which shows that nonspecific attachments can develop between individual cows and their peers⁴⁷.

4.3.2 Forced Proximity to Other Animals

Tigers in the wild are solitary animals, coming together only for mating. A study on circus tigers described how circuses often transport tigers in groups and that severe fights can break out⁶. 'Major movement' in the back of a truck could be felt by a driver, indicating fighting. Whenever this happened, the method of stopping the fight was the 'sudden application of the brakes,' which would cause the fight to stop until the truck could be stopped, and a handler could separate the tigers. Clearly an unacceptable situation.

Traveling circuses frequently put different species of large cats together and have even created a lion-tiger hybrid, calling it a "liger." Putting different species of large cats together can lead to serious aggression, as when a male tiger attacked a lioness, causing very serious injuries.

Studies of browsing and grazing species have shown that increased social density may produce competition for resources, especially food, which could then increase the likelihood of stereotypic licking³⁴.

4.3.3 Inappropriate Groupings with Other Species

Besides suffering from the effects of isolation, animals suffer when forced to live in close proximity to other species, as is often the case in circuses. The suffering is further increased when the other species is a natural predator or prey of the animal in question, as documented in ADI observations.

When next to cattle or pigs, farmed red deer stayed as far as possible from them and were generally more active, showed agonistic interactions and had elevated plasma cortisol concentrations. Despite previous familiarization of some of the deer



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Circus Animal Control Methods

One of the great circus myths is that circus animals are trained by kindness and reward, also known as positive reinforcement. Our studies of the training of animals in circuses over the past 15 years have shown that the tools of the trade are whips, goads, iron bars, elephant hooks and electric shock devices.

The actual training takes place in secret. The 'training sessions' presented to public and media when on the road, are in fact just rehearsals, when the animals are simply being put through well-worn paces.

Circus animals are shown during these rehearsals, that if they disobey the trainer, they will be punished. Even huge, powerful animals can be beaten into submission.

Young animals, so inquisitive and playful, will grow old in the same barren cages, and they will learn from an early age, that disobedience will not be tolerated. It is a lesson that will be repeated throughout their lives.

The elephant hook or ankus is common to the traveling circus around the globe.

A: Elephant hook, Hanneford Family Circus.

B: Elephant hook, Circus World.

C: Use of elephant hook on Swain elephants at Bailey Brothers Circus.

D: A golf club his used to hit a Swain elephant in the leg at Bailey Brothers Circus.

E: An electric shock device (circled) was used on the Swain elephants during a 'training session' at Bailey Brothers Circus. .

F: The type of device used to deliver electric shocks.

G: A reptile's mouth has been taped shut in order to be used for photographs Sterling & Reid Circus.

H: A three-month old white tiger cub was shouted at and hit in the face when he did not "behave". Sterling & Reid Circus, Fredericksburg.



F



H

The Scientific Evidence

with cattle, the more 'experienced' animals did not habituate to the unusual grouping. In fact, evidence suggested that previous exposure to cattle made red deer more aversive to them⁴⁸.

Like other browsing and grazing species, deer have evolved a naturally exaggerated flight distance as an adaptation for escape from predators. In a confined space, where they are housed close to other species, they cannot prevent these other animals from entering their 'flight zone.'

Obviously, ruminants and omnivores like cows and pigs do not pose a predatory threat to deer, but they may pose other threats. Firstly, they are not familiar to deer and are thus perceived as a potential threat. Secondly, they may be competition for resources. Thirdly, different species have evolved specialized means of communicating with one another, and the unpredictable noises from another species and an inability to read each other's signals may cause problems in mixed species groups⁴⁸.

4.3.4 Close Proximity of Predator and Prey Species

Prey species have adapted to recognize, avoid and defend against predators⁴⁹. However, in the restrictions of a traveling circus, animals such as horses, other browsing and grazing animals and smaller animals are frequently exposed to one or more predators, such as dogs, tigers, lions and bears.

Predators may also become stressed and frustrated by the presence of prey species they are unable to hunt or of competing predators, with whom they cannot compete.

- Studies of mammalian changes in behavior when exposed to predators have shown responses such as anxiety and long-lasting neural circuit changes in the brain⁵⁰.
- For many mammalian species, predator avoidance relies on sensitivity to predator odors. Research on the effect of predator odors in mammalian prey species describes how pregnant female rodents exposed to such odors may give birth to smaller litters and exposure to such odors in early life can also hinder normal development. Studies of mammalian species who avoid predator odors includes rodents, possums and sheep⁴⁹.
- Behavioral effects in animals exposed to predator odors include inhibited activity, suppression of nondefensive behaviors, such as foraging, feeding and grooming, and shifts to habitats or secure locations where such odors are not present⁴⁹.
- Even closely related animals, such as different species of exotic cats, can be averse to the presence of other species. A zoo study investigating the low reproductive success rate of small exotic cats in captivity pointed out that most of these cats are solitary in nature. However, in captivity they are routinely housed in pairs and managed in close proximity to other species of small and larger cats, whom they may perceive as potential predators⁵¹ or competitors for resources and territory. Cats try to avoid contact with other cats and show abnormal and stress behaviors when other cats encroach on their territory. This was cited as a possible reason for the lack of breeding success with this species in captivity.

4.4. Conclusions on the Scientific Evidence on Suffering

All together, this evidence demonstrates that whether of exotic or domestic species, animals are likely to suffer as a result of living in a traveling circus:

- Transport has been shown to cause many indicators of stress, including increased heart rate, a rise in body temperature, lowered immunity to illness and disease, changes in hormone levels that are known to affect pregnancies, weight loss, increased instances of aggression and stereotypic behaviors.
- Inadequate animal care practices and limitations of space make it impossible for animals to express normal behavior. This leads to a high number of stereotypes and other abnormal behaviors, increased aggression towards other animals, increased susceptibility to disease, the presence of physiological indicators of stress and greater mortality.
- Inappropriate social groupings cause a multitude of negative effects on animals:
 - Isolation or separation from companions leads to complex changes in behavior, including a decreased interest in surroundings, stereotypes, increased heart rate, vocalizations and higher levels of physiological stress.
 - Animals forced to live in close proximity with one another show a greater frequency of fighting and competitive behaviors and a greater incidence of stereotypes.



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Public Safety Issues

When animals are kept in temporary cages and tents, safety is compromised. Circus workers and members of the public, including children, have been killed and maimed by circus animals – lions, tigers and elephants have all escaped.

Many circus working practices increase the likelihood of such incidents by bringing people into dangerously close proximity to wild animals. They may display animals in inappropriate, uncontrolled areas to attract publicity or to take advantage of a venue that is not suited for the exhibition of wild animals.

Any animal can be unpredictable, especially when stressed or if it sees an opportunity to escape its confinement. The 2007 San Francisco Zoo tragedy illustrated how agile big cats can escape even a purpose-built facility. It is easy to see that the risks are much greater in the portable facilities described here.

A. This lion at the permanent quarters of Chipperfield

Enterprises in the U.K. (at the time a supplier of acts to the U.S.) has climbed onto a prop and is attempting to escape through a hole in the netting of a training ring. This illustrates how animals can exploit deficiencies in containment, leading to dangerous situations.

B & C: Shrine Circus, Minnesota

Tigers wait to perform – there is no netting over the ring cage. Many question the safety of elephant rides, yet an elephant carrying children is walked next to the caged tigers, where there is an increased risk of the elephant being spooked.

D: Bailey Brothers Circus, Oklahoma and Kansas

Chrissie the elephant escaped frequently, even dismantling the electric fence; she threw hay, grass and stones at people and had a reputation for cornering and pushing circus workers. Despite this potentially dangerous behavior, the circus allowed Chrissie to be fed by the public, separated by just a small metal barrier.

April 17: Chrissie escaped by lifting up the electric wire (which was turned on) and walking underneath it. Several workers ran after her with elephant hooks.

April 19: Chrissie tried to escape and threw grass and hay at people during the day.

April 20: Chrissie escaped, so was chained up for most of the day. She threw hay, stones and grass at people.

April 22: Chrissie tried to escape by dismantling the electric fence. Her trainer said that he thought she was becoming accustomed to the shock.

E: Circus Royale, Glens Falls, New York State

Twice a day, three elephants had to walk from their living quarters (1) to the performance venue (2) and then back again along a public road.

F: Bailey Brothers Circus, Illinois

Penny the zebra escaped twice from her pen in four days. She would put her head through the metal railings and lift the hinges to escape. She also barged the railings and paced when her companion pony, Tony, was away performing. Penny would also try to escape when workers moved her from the enclosure to her trailer, pulling and kicking. Occasionally, she bit circus workers and members of the public.

Unnatural Acts: U.S. examples

Circus animal acts do not teach respect for animals or appreciation of the other species who share our planet. In fact, they teach the opposite. Audiences are shown a caricature of an animal, often presented to make the trainer look strong and brave. While circuses strive for spectacle, animals are forced into increasingly bizarre and unnatural acts that they would naturally resist. So force is used to make them obey. Acts appearing in the U.S. during the study include tigers forced to jump through rings of fire, elephants doing front leg stands and a boxing kangaroo. Even domestic cats are pushed to their limit, leaping from a great height to land on a cushion.



Hanneford Family Circus.



Circus Royale.



Ringling Brothers and Barnum & Bailey Circus.



Circus World.

All photos: Animal Defenders International

- When different species are mixed or forced to live in close proximity to one another they exhibit a range of avoidance behaviors and increases in heart rate and other indicators of physiological stress and spend more time being alert.
- When predators are in close proximity to prey, the prey shows anxiety behaviors, changes in their nervous systems, a suppression of feeding and grooming behaviors and often a lowered breeding success. When they do breed, the presence of a predator's odor can lead to smaller litter sizes and can hinder the normal development of young.

The horse data helps us to assess the effects of constant confinement, transport and performing on a whole range of other animals. Horses have a long-established relationship with humans, but there is clear evidence of the suffering of horses in all aspects of circus life. How much more, then, must other species, especially those instinctively afraid of humans, suffer?

Given the circumstances, it is simply not possible for traveling circuses to provide animals with the space and environment they need to maintain optimum physical and psychological health.

The abnormal behaviors seen in animals in the U.S. justify a call for an end to the use of animals in traveling circuses. If there is doubt about the identification of injury or poor animal welfare, the animals should be given the benefit of the doubt.

5. The Animal Welfare Act

The U.S. Animal Welfare Act (AWA) is the federal law that regulates the commercial use and trade of animals for research and in exhibitions (carnivals, zoos and circuses), the pet trade and during transportation in commerce, and the protection of owners of animals from animal theft and resale (AWA, Section 1). The Act provides a system of licensing, regulation and inspection and sets minimum standards of care and humane treatment of animals used in these industries. The Animal and Plant Health Inspection Service (APHIS), a division of the U.S. Department of Agriculture (USDA), enforces the AWA.

Circuses using performing animals fall under the definition of ‘exhibitor’ in the AWA (S.2). Other sections of the Act regulate animal licensing (S.3) and records on the purchase, sale, transportation, identification and ownership of animals, as well as arrangements for inspections (S.10).

Section 13 outlines the humane standards for animals covered by the AWA. The Secretary of Agriculture applies these standards to the handling, care, treatment and transportation of animals. This includes housing, feeding, watering, sanitation, rest, ventilation, shelter from extremes of weather and temperature, adequate veterinary care, and separation by species. It also allows the Secretary to consult with outside experts. Therefore S.13 actually provides the outline for the detailed standards which are incorporated in the Code of Federal Regulations (CFR), also implemented by APHIS.

The Act further empowers the Secretary of Agriculture with the authority to publish such rules and regulations as he determines necessary to assure humane treatment of animals, although there is an obligation to develop such regulations in collaboration with other government departments who have an interest in the subject.

Section 29(a) of the Act allows the Secretary to apply to a court for an injunction, should he believe that an exhibitor of a circus animal, for example, is placing the health of an animal in serious danger, in violation of the AWA or its regulations or standards.

Although the system of licensing, inspection, and the USDA’s laudable ‘Animal Care Policies’ and ‘Exhibitor Inspection Guide’ for APHIS inspectors lay down some positive welfare guidelines for traveling circuses, our study of the use of animals in circuses in the U.S. indicates that these are mostly unenforced or simply not implemented.

In addition, we find key deficiencies in the language and scope of the Act and the relevant Code of Federal Regulations, as well as the system of inspections that leave animals in traveling circuses exposed to suffering and abuse.

In relation to the use of animals in traveling circuses, therefore, the Animal Welfare Act has failed in its main purpose: “(1)...to insure that animals intended for use in research facilities or for exhibition purposes or for use as pets are provided humane care and treatment;” and “(2) to assure the humane treatment of animals during transportation in commerce...”

Deficiencies in Administration, Regulation and Enforcement

The AWA describes minimum welfare standards for dogs and primates but not for other species in other commercial contexts, a huge omission. USDA and APHIS policy guidelines are not enough to bring about an overall improvement in the welfare of animals with traveling circuses. Section 16(a) describes the inspection and regulation protocol. However, a specific provision for annual inspections, follow-up inspections and enforcement applies only to research facilities. Worse still, is that the APHIS guidelines on inspections currently advise, “*You do not have to inspect every circus or traveling exhibitor that exhibits in your territory*” (APHIS Animal Care Resource Guide, Exhibitor Inspection Guide, 11/04 17.10.1).

Gross Negligence

Section 19(d) of the AWA determines that any exhibitor who knowingly violates any provision of the Act shall, on conviction, be subject to imprisonment for not more than one year or a fine of not more than \$2,500, or both. The Act needs to be amended to provide specific sanctions in cases of gross negligence (gross breaches of the duty of care), which may lead to a violation of the humane standards of animal welfare provided by the Act.

Activities Exempted from the Scope of the Act

Many performing animal exhibitors are outside the scope of the AWA and therefore exempt from any animal protection enforcement (AWA S.2 (h); Title 9 Chapter 1, Part 1, S1.1, CFR). These include state and county fairs, livestock shows, rodeos, field trials, coursing events, purebred dog and cat shows, retail pet stores and any fairs or exhibitions intended to

The Animal Welfare Act

advance agricultural arts and sciences. These activities should be drawn under an updated Act, governed by specific regulations relevant to the particular activity.

Species Exempted from the Act

Many types of performing animals have been excluded from the legislation. S.2 (g) of the AWA defines the only species included in the legislation: dogs, cats, nonhuman primates, guinea pigs, hamsters, rabbits and other mammals. The Code of Federal Regulations excludes additional species: birds, horses not used for research, rats or mice for research, and farm animals (T9,Chap1,Pt1,S1.1). Finally, cold-blooded animals, such as snakes and alligators, are not included. In terms of animal welfare, as this report shows, these exclusions are arbitrary and unscientific and they leave many animals commonly used in circuses, like parrots, doves, horses, ponies, camels, llamas and reptiles, outside of the protection of the Act.

An updated Animal Welfare Act should be comprehensive and include all animals in captivity, with fundamental animal welfare objectives written into the core of the legislation and regulations governing the use of animals in each industry or commercial context.

A nation can be judged by how it treats the weakest and most vulnerable individuals for which it has responsibility. The U.S. should lead the way, with comprehensive principles laid down for the treatment of other species living alongside us in human society.

International movement of circus animals: U.S. examples

Circuses and animal dealers export animals from the U.S. to appear in circuses around the globe. Animals imported from abroad are resold to circuses in other countries. America also buys and hires animals and acts from all over the world. It is time for the U.S. to help stop this animal traffic.

From the U.S. to die in Colombia.



Animal Defenders International

Shakira, the giraffe

On October 9, 2006 an 8-month old male giraffe named Shakira arrived at Circo Africa de Fieras in Bogota, Colombia. Circus representatives said that they purchased him from "a zoo in Miami, Florida" for \$50,000 and that he was en route to Circo Hermanos Gasca to be trained. Subsequent investigations revealed that he was actually supplied by a Texas-based animal dealer, Exoticos Salvajes.

Shakira had arrived in Colombia two days earlier, on Saturday October 7, but was not permitted to leave the airport until Monday 9, as the airport was closed over the weekend. While at the airport he was kept in a warehouse, in his box which measured approximately 5 feet x 8 feet x 9 feet. International Air Transport (IATA) regulations state: "Large giraffe are not recommended for air transport for animals that exceed an overall height of approx 1.50m (5ft.)." Shakira exceeded this height. Circo Africa de Fieras workers made a pen for him, which he survived in for just six days. He died at 3a.m. on October 15. A vet arrived at approximately 9a.m. to perform an autopsy and said that Shakira's stomach was swollen from gas accumulation due to an excess of concentrated food that caused an obstruction of his digestive system. He was cut up, taken to a pet crematorium and cremated.

During this investigation, an ADI field officer filmed a trainer with Circo Africa de Fieras punching a chimpanzee called Karla (pictured) in the face and then beating her with a chain.

At Circo Hermanos Gasca we witnessed another trainer beat and punch in the face, a chimpanzee called Panchito. Panchito was supplied to the circus from a dealer in Cuba. The origin of Karla is unknown; she was probably caught in the wild and is likely to have been trafficked through a number of countries.

Toto, the chimpanzee

27-year old Toto was snatched from the wild in Africa as a baby. The authorities believe that at about two or three years old, Toto and three other baby chimps were purchased in the U.S. by Chile's Circus Konig. The other three died, leaving Toto alone for 20 years. He lived in a wooden packing crate about 3 feet wide, with bars on the front. He was chained by the neck when not performing. His act involved dressing up in human clothes, smoking cigarettes and drinking tea. Toto's only comfort during cold days and nights was to huddle beneath a small blanket. He slept surrounded by empty plastic bottles and sweet wrappers. ADI took legal action and seized Toto in 2003. His teeth were broken, his gums severely infected, and the canines had been pulled out. He had been castrated, and there were cigarette burns all over his body. He was taken by ADI to renowned chimp sanctuary Chimfunshi in Zambia, Africa, where he now lives with a new chimpanzee family.



Toto to a Chilean circus via the U.S.

Animal Defenders International



Toto after his rescue by ADI

Animal Defenders International



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B



C

A. Dicky Chipperfield (pictured hitting a tiger with a metal bar at his UK training facility) ran Europe's largest circus lion and tiger breeding and training establishment – Chipperfield Enterprises.

B. A shipping container with three circus elephants inside is loaded at Charleston docks, South Carolina for a ten day journey across the Atlantic.

C. At Charleston the elephants were allowed into this small space on the deck of the ship. But, disturbed by the noise or motion, they refused to leave their container during the voyage. Thus they spent ten days in the container (photo B).

though she was diagnosed with arthritis the previous year.... In the ring, Dicky was using a handheld stun gun on the elephants. Dicky used the hook behind the ear, legs, trunk and chin. They were left with blood dripping. They would use the 'zapper' electric shock as well.... if the elephants were not moving. When Mina did not move fast, Martin would hit her with the hook around the head. After the show he started beating Camilla because the act had not gone right."

From Dresden the animals went to Massey near Paris followed by a two-day journey with one water break to Gottingen, Germany. Here the elephants were kept chained in the dark before moving to Frankfurt. Rider left the circus on March 12. Before doing so, he "counted the marks on the elephants' legs from the hook. There were 72 on Mina's front right leg, 36 on the back, 27 on Camilla's front leg, 9 on the back right leg and marks behind the ear."

Imported acts

U.S. circuses regularly use animals and trainers from abroad. This entails very long journeys to reach the U.S., and even less control over training methods. Here we track an animal act supplied by trainer Dicky Chipperfield, returning to Europe after appearing with Ringling Brothers and Barnum & Bailey Circus.

Graham Thomas Chipperfield presented ten lions and three elephants (Letchmai, Mina and Camilla) for several years for Ringling Brothers. Graham's brother, Richard Chipperfield Jr., joined him with 12 tigers, but after less than a year, was seriously mauled by one of them. Graham forced the tiger into a cage and shot him to death. The brothers stopped performing and so most of the animals had to return to Europe. Ringling Brothers employee Tom Rider accompanied them.

On November 18, 1999, the elephants made a 350-mile journey from Tampa, Florida to Charleston, South Carolina, in a metal container on a truck. They were shut in for two days and given water only once. At Charleston they were loaded onto a cargo ship and allowed out into a very small space between the other containers. As the boat moved they became restless and so were returned to their container. Whether it was the noise, motion, environment or a combination of factors, the elephants refused to go out again during the voyage. Also on board were 16 large cats, including three cubs, in a 53-foot-long trailer. One cub died during the journey.

After ten days at sea, they arrived in Algeciras, Spain. Rider said, "The elephants were in the worst state I had seen them, kicking and shoving the doors to get out. We set them loose in the container yard for 20 minutes, but put them back as they tried to break through the fence. The undersides of their bellies were shaking, twitching with stress." During four days in Algeciras, the elephants came out twice and, with supplies limited, they were living off hay.

Between December 2 and 5, the elephants were transported by road to Amsterdam, Holland, receiving water twice. They remained in Amsterdam until the 12, but because of rain did not leave their container, except for one 25-minute break. On December 12 they moved to France, arriving on the 14. An elephant hook and electric shocks were used in rehearsals. Rider: "Dicky told Martin [Lacey junior] to give them a command. If they didn't respond, to give it to them a little heavier in a deeper voice. If they didn't respond, he would let them have it with the hook. "Get into 'em" he'd say."

It snowed in France, so the elephants remained in the truck. Leaving France, they drove 24 hours and arrived at Circus Barelli in Dresden, Germany the following night. The elephants came out of their transporter and were chained by the legs in an unheated tent. Tom Rider: "In rehearsals, Dicky would use both hands, yanking at them with the elephant hook. Letchmai was used, even

6. Recommendations for Action

Observational and scientific evidence makes it clear that the traveling circus is no place for animals and that these archaic shows should be prohibited. Legislation prohibiting the use of wild animals from traveling circuses has already been passed in several countries and at least two countries are currently considering full bans, on both wild and domestic animals such as horses and ponies.

Significantly, this is an industry that can survive without animals, with human-only circuses proving increasingly popular with the public around the world.

It is vital that legislators address this issue decisively and avoid the wasted expense of developing regulations and guidelines that are not enforceable. Revised and more comprehensive guidelines on animals in circuses should involve independent animal welfare experts from nongovernmental organizations. This review should give urgent consideration to a ban on the use of animals in traveling circuses and a ban on the use of force during training, for reasons of animal welfare.

There is significant scope to improve the impact of the Animal Welfare Act for many animals.

The Animal Welfare Act should be updated to incorporate basic principles of animal welfare. It should apply to all animals in captivity. A comprehensive mechanism needs to be introduced for administration of regulations, inspections, and enforcement. This should include the confiscation of animals who are identified as being at risk of suffering due to poor welfare provision.

The Act should incorporate a core statement of the principles of animal welfare to be upheld, and the needs of animal should be clearly defined as the need for:

- A suitable environment
- A suitable diet
- The ability to exhibit normal behavior patterns
- Appropriate housing with or apart from other animals
- Protection from pain, suffering, injury and disease

These provisions for protection of the welfare of animals should apply to:

- Any lawful purpose for which the animal is kept
- Any lawful activity undertaken in relation to the animal

Regulations and standards of animal welfare should be developed for animals in commerce and industry. Standards of humane treatment and guidelines on the duty of care should be developed, for those responsible for captive or domestic animals living in human society.

Globally the actions of municipalities, and even individual landowners, have had a profound impact in moving the circus industry away from the use of animals to human-only circuses. There are already such prohibitions in place in the U.S., and although this is currently significantly less than Europe or South America, it demonstrates the public support for such a change.

Appendix: Public Opinion

A nationwide ban on all wild animals in circuses is already in place in Austria. This example was recently followed by Hungary, which banned wild animals by government decree in September 2007.

A growing number of EU countries have also banned the use of certain species, including Denmark, Sweden, Finland, and the Czech Republic. Greece is currently considering legislation to ban the use of all animals in traveling circuses.

In the United Kingdom, the Government is currently discussing the introduction of a ban on the use of certain nondomesticated species in traveling circuses. This results from opposition to animal circuses in towns and cities all over the U.K. In a survey of 310 local authorities (town and county councils) ADI found:

- 39% had banned all animal acts.
- 17% had banned wild animal acts.
- 22.5% continued to allow animal circuses.
- 21.5% said circuses with animals did not visit their communities.

Several major European towns and cities have either banned all circus animal acts or wild animal acts, including Thessaloniki (Greece), Barcelona (Spain), Cork (Ireland) and Venice (Italy).

The European Commission made clear in December 2006 that such bans are feasible under EU rules and that animal welfare was an issue of great importance⁵². The trend is the same in non-EU countries, such as Croatia, where most major cities have bans.

In Latin America, Costa Rica has banned all wild animals in circuses. Nationwide bans on all animals in traveling circuses are under consideration in Bolivia and Peru, where legislation is expected in the near future. The State of Rio de Janeiro and the cities of Buenos Aires (Argentina), Porto Alegre (Brazil), La Paz, Sucre, El Alto, Cochabamba, Santa Cruz and Tiquipalla (Bolivia) have implemented full bans on both wild and domesticated species, except La Paz, which has a ban on wild animals only.

In the Middle East and Asia, Israel, India and Singapore have banned wild animals in circuses.

Parramatta (Sydney) in Australia and Wellington, New Zealand have local bans of wild animals in circuses.

Banning the use of animal acts from circuses has been tested politically in many countries. The idea has been successfully enforced and is popular with the public.

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