INTRODUCTION

On January 11, 2016, Feld Entertainment, Inc. (Feld), announced that subsidiary Ringling Bros. and Barnum & Bailey Circus would phase elephants out of its circus performances by May. Citing “shifting consumer preferences” and an increase in prohibitive local legislation, Ringling plans to relocate the elephants it uses to its so-called “Center for Elephant Conservation” (CEC) in Polk City, Florida, where it already holds dozens of other elephants.

Relief from the stress and physical demands of circus life will be a positive change and should not be delayed any longer. However, life at the CEC—where elephants are chained on a daily basis, subjected to abusive training methods, deprived of opportunities to socialize, and forced to breed—is far from “retirement.”

The CEC routinely chains elephants—including baby elephants, whom the facility forcibly separates from their mothers—for prolonged periods and abuses them with bullhooks and electric prods. The center is also a hotbed of tuberculosis (TB): According to the U.S. Department of Agriculture (USDA), the CEC is “[t]he facility with the highest incidence of TB in their elephants,” and as a result, it has been the subject of a series of government-mandated quarantines. In addition, it continues to force elephants to breed and makes deceptive conservation claims, even though the company acknowledges that not one of these animals will ever be released into the wild.

Elephants who have endured years of suffering and earned Ringling millions of dollars deserve better—including the opportunity for physical and mental rehabilitation, which is impossible at the CEC but not at the two accredited elephant sanctuaries in the U.S.: the Performing Animal Welfare Society in San Andreas, California, and The Elephant Sanctuary in Hohenwald, Tennessee.
I | CHAINING AND INTENSIVE CONFINEMENT AT THE CEC

In the wild, Asian elephants have home ranges in excess of 233 square miles. At sanctuaries accredited by the Global Federation of Animal Sanctuaries, they are afforded acres in which to roam and are never chained. At the CEC, in stark contrast, elephants are shackled indoors on concrete every night.

According to the 2007 sworn testimony of Gary Jacobson, the general manager of the CEC, some elephants at the facility are routinely chained on concrete floors for up to 23 hours a day. They are typically chained by two legs—one hind leg and one foreleg—which prevents moving more than a step or two in any direction.

During a court-ordered inspection of the CEC, elephant-care specialist Carol Buckley, who has worked with elephants for decades, observed that elephants spent so much time chained that they had worn grooves into the concrete floor. Video footage of elephants at the CEC chained on concrete recorded during a 2007 inspection is available here.

Female and young male elephants at the CEC are commonly chained for at least 16 hours a day—and some are chained for even longer. According to Jacobson, for example, the elephant Emma was kept chained alone on concrete for 23 hours a day, and the elephant Shirley was similarly chained for 22.5 hours a day on concrete. Jacobson also testified that pregnant elephants at the CEC are chained by two or three legs while giving birth.

In 2003, for example, Shirley was chained by three legs when giving birth to Riccardo, which endangered his life, as this video footage of the birth shows. Without the guidance and support of other elephants during her labor, and unable to turn and see her newborn because of the chains, Shirley inadvertently kicked Riccardo when he dropped from her womb. She made several desperate attempts to reach out to him, but instead of allowing mother and baby to bond, CEC staff immediately pulled Riccardo away. (Tragically, just eight months later, Riccardo fell off a pedestal during training and broke his hind legs. The damage to his legs could not be treated, and veterinarians euthanized him.)

Elephant calves are also subjected to prolonged chaining at the CEC. Former Ringling trainer Samuel Haddock described the CEC’s forced separation of calves from their mothers in a sworn statement:

Babies are typically pulled from their mothers around 18–24 months of age. Once they’re pulled from their mothers, they’ve tasted their last bit of freedom and the relationship with their mother ends. ... When pulling 18–24 month-old babies, the mother is chained against the wall by all four legs. Usually there’s 6 or 7 staff that go in to pull the baby rodeo-style. We put ropes around the legs, one leg at a time. No specific leg first. The ropes are tied off to the pipes. We bring in an anchor elephant and put a rope collar around the anchor elephant and put the other end around the baby’s neck. The anchor elephant leads the baby to the North end of the barn. It can take between 30 minutes to an hour to capture and restrain the baby. The baby tries to run away and fights having the ropes put on. Some mothers scream more than others while watching their babies being roped. If the screaming matches continue after the baby has been moved, we might take the mothers outdoors to quiet them down.
After being pulled from their mothers, Haddock reported, they “spend about 23 hours each day restrained” on concrete. Jacobson described keeping one baby elephant in chains for four months, except for about 40 minutes a day, when he would work with her. He also testified that when a baby elephant named Irvin was separated from his mother, he was kept tied up for 10 days. In 2010, during an inspection, an elephant expert observed that Irvin had a bowed rear right leg and hypothesized that “the bowing in his leg may be from excessive chaining,” explaining that she “ha[s] seen this in a number of elephants that have been trained by chaining them to something and the force of the chains can cause physical harm such as this.” Based on the fact that Irvin had no fresh chaining abrasions, the expert found it “likely [that] the damage was done when he was an infant in training.”

After observing two elephant calves at the CEC with “large visible lesions” on their legs, the USDA’s deputy administrator for animal care informed Feld that “the handling of these two elephants … caused unnecessary trauma, behavioral stress, physical harm and discomfort to these two elephants.” Video footage taken by the USDA in 1999 showing the lesions is available here. According to Haddock’s sworn statement, “During USDA inspections at the CEC, we would try to hide injuries, such as rope burns, from USDA inspectors by putting mud on their legs.”

Chaining on hard surfaces makes elephants prone to arthritis, infection, and psychological stress and, ultimately, can lead to a premature death. Deprived of everything that is natural and meaningful to them, chained elephants often engage in stereotypic behavior, such as swaying back and forth, sometimes repeatedly shifting their weight from one foot to another—all well-recognized signs of suffering. In the words of one elephant consultant, hard surfaces, combined with rocking and swaying behaviors, “are the kiss of death for captive elephants.” Chaining them for “upwards of 16 out of 24 hours on hard unyielding, non[-]interactive surfaces … [plays a part in] their medical and physical deterioration,” and “chaining only increases the effects of the confinement.”
The constant expansion and compression of an elephant’s foot on concrete, compounded by ongoing exposure to feces and urine because of limited mobility, can result in severe foot problems—such as infected cracked nails—one of the leading reasons why captive elephants are euthanized. In court testimony, veterinarian and captive elephant expert Dr. Philip K. Ensley described the risk of infection posed by CEC conditions as follows:

With elephants tethered in position, moving back and forth, unable to avoid splashing urine and particulate matter from fecal debris, urine... elephants form maybe 15 gallons of urine in a 24-hour period, 200–300 pounds of solid waste in a 24-hour period. So, contained in one location where the elephants are moving, the crack opens and closes, those events precipitate infection.

A comprehensive review of Ringling’s medical records revealed a high rate of foot problems at the CEC. As explained in the leading veterinary text *The Elephant's Foot*, “There is a general consensus that lack of exercise, long hours standing on hard substrates, and contamination resulting from standing in their own excreta are major contributors to elephant foot problems.” Dr. Ensley notes that continuing to chain elephants at the CEC on concrete “will exacerbate past and ongoing musculoskeletal disorders, as well as other maladies brought on by the longstanding practice of forcing these elephants to stand on surfaces causing injury, harm, discomfort, pain and harassment.”

While foot problems have been documented in about 50 percent of captive elephants at some point in their lives, Ringling’s medical records reveal that nearly 100 percent of the elephants it holds—including those at the CEC—have foot problems as well as musculoskeletal disorders. Especially disturbing is the fact that these problems are prevalent even in younger elephants. Dr. Ensley reported that a review of the medical records of elephants born at the CEC revealed that “of the sixteen still living” (four elephants born at the CEC died as babies), “all but four have had foot or limb maladies. This represents a failure ... to recognize that ... prolonged chaining, training, and housing on hard, unyielding and unnatural surfaces is causing injury, harm, discomfort, pain, and harassment, and aberrant behavior in younger elephants.”

Examples found in Ringling’s medical records include the following:

- A 6-year-old elephant suffered from lameness and recurrent nail-bed abscesses.
- Another 6-year-old elephant suffered from lameness, stiffness, a nail-bed abscess, and a sole lesion.
- A third 6-year-old elephant suffered from acute lameness and nail-bed abscesses.
- A 7-year-old elephant was lame and suffered from toenail cracks and nailbed abscesses.

Toenail cracks can prove fatal for captive elephants such as this one at the CEC and are rare in the wild.
Reputable animal sanctuaries recognize the cruelty inherent in chaining elephants and instead provide them with large, elephant-proof spaces that allow them to have free movement and access to the outdoors.\textsuperscript{38} Even organizations that influence policy for commercial elephant exhibitors, such as the American Veterinary Medical Association (AVMA) and the Association of Zoos and Aquariums (AZA), oppose extended chaining:\textsuperscript{39} The AVMA recommends that “tethers only be used for the shortest time required for specific management purposes.” The AZA's recognition of the discomfort and dangers of chaining is clear from its elephant-care policy:\textsuperscript{40} “Elephants must not be subjected to unnecessary prolonged restraint. Any planned restraint over two hours must be approved by the institution's administration, elephant management committee, and veterinarian.”\textsuperscript{41}

Even when not chained, the elephants at the CEC are denied adequate space. In the wild, Asian elephants spend nearly all their waking hours walking, grazing, dust-bathing, swimming, and socializing.\textsuperscript{42} A typical family herd consists of six to eight individuals led by an experienced matriarch and is stable over time, rarely splitting.\textsuperscript{43} At the CEC, when not chained, females and young males are left in unnaturally small social groups in small penned areas, while older males—who are considered “unmanageable and dangerous”\textsuperscript{44}—are kept isolated and behind bars.\textsuperscript{45} According to Jacobson, “None of the males [ever] go out on the grass,” and once they reach about 8 years old, they are kept “behind bars” for the rest of their lives.\textsuperscript{46}

Although Ringling often claims that the CEC is situated on 200 acres,\textsuperscript{47} it appears that some of this land is unusable protected wetlands.\textsuperscript{48} The elephants have access to only a tiny fraction of its acreage. Satellite imagery (below) of the CEC shows elephant enclosures demarcated by primary (yellow) and perimeter (burgundy) fencing. Using Google Earth's key for approximating the total enclosure area, only 15.25 acres distributed over 29 enclosures appear accessible to elephants. Of these 29 divisions, 21 of them are half an acre or smaller. Of those, 18 are a quarter of an acre or smaller, and seven are just a tenth of an acre. According to Feld statements, the CEC currently holds 29 elephants and as many as 13 more are expected to arrive,\textsuperscript{49} yielding approximately one-third of an acre per elephant.
II | PHYSICAL ABUSE AT THE CEC: USE OF BULLHOOKS AND ELECTRIC PRODS

While elephants at accredited sanctuaries and at most accredited zoos are managed through protected contact, an approach to elephant care that requires barriers between staff and elephants at all times, elephants with Ringling, including those at the CEC, are managed through direct contact, i.e., elephants are coerced into producing desired behavior through the threat of violence, including from bullhooks—metal weapons that resemble fireplace pokers—and electric prods. Elephants used by Ringling are covered with scars from bullhook abuse. After spending more than 1,300 hours conducting a comprehensive review of Ringling’s elephant medical records, Dr. Ensley found that they reveal a “recurrent pattern of injuries on the left side of the elephants’ bodies in areas that are traditional cuing points,” which is consistent with Ringling’s own admissions that the sharp ends of the bullhook are traditionally applied to the elephants’ skin in these locations.50 Haddock explains:

The bullhook is designed for one purpose, and one purpose only, to inflict pain and punishment. I should know, I used to make them. I built them to where you can’t break them, no matter how hard you hit the elephant. The first test is to go out to an oak tree and test drive it by whacking as hard as I could to try to break it and to try to shake the hook loose.51

One of the primary purposes of the bullhook while the circus is on the road performing is simply to remind elephants of the consequences of disobeying that they’re only too familiar with from training at the CEC. World-renowned elephant expert Dr. Joyce Poole explains:

Due to the particularly intelligent and emotional constitution of elephants, such use of the bullhook and other instruments also makes them more vulnerable to psychological wounding. … [E]lephants are keen social learners. In other words, much of elephant behavior is not instinctive but learned from watching or listening to others. … Such learning is a vital component of an elephant’s daily life. Elephants, too, are capable of empathizing with others … and have even been observed to wince when a companion reaches its trunk out toward an electric wire. . . . These two capacities, social learning and empathy, mean that when an elephant is beaten, grabbed, jabbed, poked, bopped, or pulled with a bullhook, this action has negative psychological consequences both for the individual elephant receiving the negative treatment and also for nearby elephants. In other words, the routine use of the bullhook psychologically wounds an elephant whether or not she or he is being hit.52

Bullhooks, such as these from the CEC, are used to gouge and yank elephants in sensitive areas of the body, such as the ears and behind the knees.
As a California judge recently recognized, “When elephants that were trained or ‘broken’ with a bull hook are subsequently shown a bull hook or an object that looks like a bull hook, they (quite understandably) become afraid, and comply with requests by the trainer or keeper. … If an elephant has been hurt by a bull hook in the past, the elephant will react negatively if a keeper merely shows or displays a bull hook.” Because of this, the judge concluded, “No one seriously disputes that the use of bull hooks … is abusive and inappropriate discipline.”

Growing public disapproval of the use of bullhooks and other training weapons on elephants has led to the passage of bans in cities and towns across the country, including Richmond, Virginia; Austin, Texas; and Los Angeles and Oakland, California. Indeed, such legislation was one of the reasons cited by Ringling for its plan to retire the elephants. Reliant on bullhooks to intimidate elephants into parading or performing, Ringling is unable to exhibit elephants in municipalities with bullhook bans and cited the increase of such restrictive legislation as a contributing factor to its decision to phase out the use of elephants.

Ringling also uses electric prods—aka “hot shots”—on elephants at the CEC. According to Haddock, “Gary usually kept a hot shot in his pocket to use in training sessions.” Photographs of training sessions at the CEC provided by Haddock show Jacobson using electric prods on baby elephants (see page 8).

Jacobson has acknowledged his use of electric prods. And according to Haddock, “Training techniques used by Gary Jacobson include a lot of man power, brute force, electricity, and a savage disposition. Raising a baby elephant at Ringling[‘s CEC] is like raising a kid in jail.” In describing the training of one elephant under Jacobson, Haddock explained, “[B]eatings were daily. … She had quite a few hook marks on her and we used quite a bit of electricity.” Another Ringling trainer testified under oath that he uses electric prods on the “younger” elephants because “sometimes you just need to get their attention more than others that the guide”—Ringling’s euphemistic term for the bullhook—“may not do.” Haddock noted that hot shots are kept hidden during USDA inspections of the CEC.

Direct contact and the associated use of bullhooks and electric prods are not only cruel but also entirely unnecessary. Accredited elephant sanctuaries and zoos are able to feed elephants and administer medical care to them non-intrusively through protected contact. In these progressive facilities, staff members are safeguarded by barriers and elephants are directed through positive reinforcement, rendering bullhooks and electric prods entirely obsolete. This management style is swiftly becoming the industry standard, practiced by the majority of AZA facilities with elephants.
Records show a long history of rampant TB, an airborne and potentially fatal disease that is highly transmissible to humans, even without direct contact, in elephants at the CEC. As of June 2014, at least nine elephants at the CEC were under quarantine orders, including two (Asia and Banko) who were pulled from performing with the circus and sent to the CEC after testing positive for TB.

Documents that PETA recently obtained reveal that in 2011, 29 elephants with Ringling—including 25 at the CEC—tested reactive to tuberculosis. The USDA's field specialist for elephants wrote in an e-mail around that time: “The facility with the highest incidence of TB in their elephants at this time is the Ringling CEC.” Since then, at least eight of those elephants have died, including Jewell, who was transferred to the Little Rock Zoo in violation of Florida's animal quarantine laws.

Former Ringling employee Samuel Haddock said in a sworn statement, “All the elephants at CEC have been treated for TB, some because they were TB-positive, others because they were exposed.” Fast-moving and transmissible through the air, TB can spread easily within restrictive quarters such as those at the CEC. According to Haddock's sworn statement, “At CEC, the vet ordered TB meds in bulk. … He would order 750,000 tablets at a time.”

Haddock reported that he had tested positive for tuberculosis himself, as had most CEC employees. Indeed, in November 2015, a Ringling worker was placed under observation for TB in Chicago. And in December 2015, two workers were barred from performing in Indianapolis after testing positive for possible TB.
Feld Entertainment CEO Kenneth Feld acknowledged when questioned under oath that the CEC breeds elephants “because … the vast majority of the people that come to our shows come to see the elephants.” The CEC’s purpose is to try to ensure a supply of captive elephants for circuses and now zoos as well. According to Feld, we should “not allow these animals to go extinct in captivity.” CEC veterinarian Dr. Dennis Schmitt has also admitted under oath that the CEC has no intention of introducing the elephants it breeds into the wild. Moreover, Feld’s breeding facility is not even a member of the AZA Species Survival Program (SSP) for Asian elephants—partly because the CEC cannot meet AZA elephant management and care standards.

In its attempt to increase the number of captive elephants it uses for profit, Ringling has forced elephants to breed prematurely, including through forced artificial insemination. Wild Asian elephants do not usually have their first calves until they are 18 to 20 years old. By contrast, Shirley gave birth to Riccardo at the CEC when she was just 8 years old. She then had Mable at age 11 and Piper at age 17. Moreover, at least four elephants born at the CEC have died as babies, and at least one baby at the CEC has suffered from elephant endotheliotropic herpesvirus (EEHV), an often fatal disease that disproportionately affects captive juvenile Asian elephants. Research suggests that stressful conditions such as those at the CEC—including maternal separation during infancy and abusive training practices—may contribute to a young elephant’s susceptibility to EEHV. Stress interferes with an elephant’s ability to fend off disease, and immunosuppression is strongly associated with the development of EEHV. Stress is endemic at the CEC because of unnatural and inadequate environmental and social conditions, among other factors. According to a report by veterinary surgeon Jonathan Cracknell on the EEHV closed-session workshop of the 2007 International Elephant Foundation Conservation and Research Symposium, key stressors include premature weaning of calves and changes in elephant group composition.

As an investigative report by The Seattle Times found, “the decades-long effort” to breed elephants in captivity “is failing, exacerbated by substandard conditions and denial of mounting scientific evidence that most elephants do not thrive in captivity.” Despite staggering infant mortality rates for captive elephants, Ringling and the CEC continue to force these animals to breed.

In making their spurious conservation claims, Ringling and the CEC also often tout their involvement with the International Elephant Foundation (IEF)—a group cofounded by Ringling and another notorious elephant-abusing outfit, Have Trunk Will Travel, which, like Ringling, has been documented abusing elephants with bullhooks and electric prods. The IEF, whose president is a Feld executive, routinely opposes legislation that would improve elephant welfare, exists largely to further captive-breeding efforts to supply elephants for the entertainment industry, and focuses its efforts on issues that predominantly affect captive elephants.

As a Ringling spokesperson has admitted: “We’re not a conservation organization. We’re a circus responsible for the care of our animals.” Feld’s lack of interest in actual conservation is further evidenced by a memorandum authored by a senior vice president, which indicates that the corporation’s associations with conservation groups is primarily a marketing ploy, intended to improve public perceptions of its animal care and to provide a “stamp of approval” useful in “the continuing debate with animal rights activists.” Despite the use of the term “conservation” in the CEC’s title, elephants bred by Ringling have no hope of ever living in their natural habitat. Since its founding, the CEC has misrepresented itself to consumers, using deceptive conservation claims as a justification for the systematic breeding, chaining, and beating of elephants.
Currently, only two elephant facilities in the U.S. have achieved Global Federation of Animal Sanctuaries (GFAS) accreditation: the Performing Animal Welfare Society (PAWS) in San Andreas, California, and The Elephant Sanctuary (TES), in Hohenwald, Tennessee. Meeting GFAS’ rigorous elephant standards requires satisfying hundreds of conditions, including minimum enclosure dimensions, nutrition, and herd size. Both facilities offer more than 2,000 acres—more than 10 times the space available at the CEC—to resident elephants, distributed over woods and grassland. Unlike the CEC, PAWS and TES do not seek to profit from the exhibition and propagation of elephants. Instead, these sanctuaries prioritize creating as comfortable a life as possible for elephants who were previously exploited or abused. Forced breeding and bullhook use never occur at the sanctuaries, nor is the general public allowed entry.

PAWS and TES even take measures to minimize human interference with the animals’ daily lives, allowing staff members to have access to elephants only to provide them with medical care and doing so through protected contact. As discussed above, protected contact relies on positive reinforcement to gain the voluntary cooperation of an elephant, and all interactions with the animals occur through a protective barrier, such as a fence. As one elephant expert and veterinarian explains, “All routine husbandry and veterinary care can be accomplished in [protected contact], and in fact, the elephants tend to be calmer because they are not worried about being punished by the trainer.”

The expertise and quality of life offered at PAWS and TES make these sanctuaries the only viable option if elephants retired from the circus are to live healthy lives free of the torment and fear inherent in free-contact facilities such as the CEC.
CONCLUSION

Ringling’s CEC is a breeding and training facility that was created to supply elephants for Ringling’s traveling shows. To Ringling, elephants are commodities, bred under the guise of conservation as living investments with no hope of a life in a natural setting. Chaining, bullhooks, electric prods, poor disease-prevention practices, forced breeding, and the forced separation of calves from their mothers have no place at a facility claiming to provide a “retirement” for animals. Elephants fortunate enough to have survived years of back-to-back performances under grueling conditions with Ringling deserve a chance at physical and mental rehabilitation—something possible only with the space, animal care, and management styles that characterize the PAWS and TES sanctuaries.

ENDNOTES


2 E-mail from Denise Sofranko, USDA-APHIS-Animal Care Elephant Specialist, to Nora E. Wineland, USDA Ctr. for Animal Welfare Director (Dec. 14, 2010).

3 See, e.g., E-mail from Sam Lamb, Bureau of Animal Disease Ctr., Fla. Dept of Ag. & Consumer Servs., to John Crews, et al. (June 27, 2014) (listing nine elephants under quarantine orders at the CEC); E-mail for Sam Lamb, Bureau of Animal Disease Ctr., Fla. Dept of Ag. & Consumer Servs., to Thomas Holt, State Veterinarian, Fla. Dept of Ag. & Consumer Servs. (Oct. 8, 2013) (discussing unlawful movement of Ringling elephants Zima and Jewell in violation of state quarantine order); E-mail from Sam Lamb, Bureau of Animal Disease Ctr., Fla. Dept of Ag. & Consumer Servs., to Gregory S. Gaj, Vet. Med. Officer, USDA-APHIS-Animal Care, et al. (May 31, 2013) (discussing the addition of TB-positive elephant Asia to the CEC’s existing quarantine order).

4 Trial Test. of Dennis Schmitt, Trial Tr. at 20, ASPCA v. Feld Entm’t Inc., 677 F.Supp.2d 55 (Mar. 17, 2009, p.m.) (Civ. No 03-2006) [hereinafter Schmitt Test.] (admitting that Feld does not intend to reintroduce elephants into the wild).

5 See Nagaragan Baskaran, et al., Home range of elephants in the Nilgiri Biosphere Reserve, South India, in A Week With Elephants 301 (J.C. Daniel and Hemann S. Dayte, eds., 1995) (finding a mean home range for several populations of elephants to be 651.1 km²).


7 Jacobson Dep., supra note 1, at 161–62, 164.

8 Id.; Trial Test. of Carol Buckley, Trial Tr. at 74, ASPCA v. Feld Entm’t Inc., 677 F.Supp.2d 55 (Feb. 23, 2009) (Civ. No 03-2006) [hereinafter Buckley Test.].

9 Buckley Test., supra note 8, at 76.

10 Jacobson Dep., supra note 1, at 154, 160–64.

11 Id. at 160–64.

12 Id.

13 Haddock Decl., supra note 1, ¶¶ 8–9.

14 Id. at ¶ 12.

15 Jacobson Dep., supra note 1, at 280.

16 Id.

17 Memorandum from Margaret Whittaker, Active Environments, Inc., to Cherie Travis, Chicago Animal Care and Control (Nov. 21, 2010).

18 Id.

19 Letter from Ron DeHaven, Deputy Administrator, USDA-APHIS-Animal Care, to Julie Strauss, Feld Entm’t, Inc. (May 11, 1999).

20 Id.

21 See, e.g., Ross Clibb & Georgia Mason, A Review of the Welfare of Zoo Elephants in Europe 51, 86–87 (2002); Gary West, Musculoskeletal System, in Biology, Medicine, and Surgery of Elephants 266 (Murray E. Fowler & Susan K. Motoke, eds., 2006) (“Chaining elephants for prolonged periods limits their movement and may also contribute to the development of DJD [degenerative joint disease]. Animals that constantly pull or resist chaining may cause joint damage.”); Murray E. Fowler, Foot Disorders, in Biology, Medicine, and Surgery of Elephants, supra, at 287 (“Lack of exercise, housing on hard surfaces, and tethering are frequently brought forward as causes of DJD.”); Carol Buckley, Captive Elephant Foot Care: Natural Habitat Husbandry Techniques, in The Elephant’s Foot: Prevention and Care of Foot Conditions in Captive Asian and African Elephants 54 (Blair Coutt, et al., eds, 2001) (“Chaining has many negative effects on foot health. Not only are elephants forced to stand in their own excrement, but they also rock and sway unnaturally. This movement applies torque pressure on feet and nails, which can cause tissue damage as well as irregular wear and thin foot pads.”); Alan Roocroft, Indoors Natural Substrates for Elephants & Medical Issues Associated with Hard Surfaces, 32 Animal Keepers Forum 480, 481 (2005) (Captive elephants face “[a]rthritis, foot abscesses, pressure sores on cheeks and hips, knee calluses that are sensitive to the touch and swellings at the knee joints, etc.” as a “direct result of being housed on hard, unyielding, cold and continuously draughty and damp surfaces.” They can also develop stereotypic swaying behaviors out of boredom.); M. Ha peslagh et al., A Survey of foot problems, stereotypic behaviour and floor type in Asian elephants (Elephas maximus) in European zoos, 22 Animal Welfare 437 (2013) (finding that elephants confined to concrete were significantly more likely to have foot problems.”).

22 Clibb & Mason, supra note 23, at 51; see generally id. at 222–30.

23 Roocroft, supra note 23, at 482.

24 Id.

74 Id.

75 Feld Test., supra note 1, at 7.

76 Id. at 74 (emphasis added).

77 Schmitt Test., supra note 4, at 14.


79 Clubb & Mason, supra note 23, at 102.

80 See AZA, Asian Elephant North American Regional Studbook 145, 147 (2014) (Shirley was born on Feb. 19, 1995, and Riccardo was born to Shirley on Dec. 5, 2003).

81 Id. at 148, 149 (Mable was born to Shirley on Apr. 6, 2006. Piper was born on Aug. 13, 2012).

82 Id. at 77 (listing Bertha, who died at 11 days old); News Release, Ringling Bros. and Barnum & Bailey Circus, Aug. 6, 2004, Statement on Riccardo (Aug. 6, 2004) (discussing the death of Riccardo at 8 months old); Circus Elephant Dies, Galveston Daily News (July 27, 1999) (discussing the drowning of Benjamin at age 4); Derek L. Kinner, Ringling Elephant Dies After 2 Performances, Ga. Times Union (Jan. 31, 1998) (discussing the death of Kenny at age 3).


85 Laura Bennett, et al., Longitudinal study of Asian elephants, Elephas maximus, indicates intermittent shedding of elephant endotheliotropic herpservirus 1 during pregnancy, 2 Vet. Rec. Open (2015) (“behavioral stressors may be related to an increase in EEHV-1 shedding”); C.E. Reid, et al. Endotheliotropic Elephant Herpes Virus (EEHV) infection. The first PCR-confirmed fatal case in Asia, 28 Vet. Quarterly 61, 62 (2011) (“EEHV appears to affect only immunocompromised or recently stressed individuals.”); Jonathan Cracknell, UK Elephant Health Programme, Elephant Endotheliotropic Herpesvirus (EEHV) Protocol Ver. 1.3 11 (undated); see Clubb & Mason, supra note 23, at 384 (discussing the potential role of stress in the development of EEHV).

86 Reid, et al., supra note 85; Bennett, et al., supra note 85; Murray E. Fowler, Infectious Diseases, in Biology, Medicine, and Surgery of Elephants, supra note 23, at 36, 49.

87 Cracknell, supra note 86, at 36, 49.


92 Memorandum from Andy Ireland, Senior Vice President, Feld, to Stuart Snyder, President and COO, Feld (Nov. 10, 1997).


94 Letter from Dr. Mel Richardson to Debbie Leahy (Aug. 7, 2010) (on file with PETA); see also Hilda Tresz & Heather Wright, Let Them Be Elephants! How Phoenix Zoo Integrated Three “Problem” Animals, 55:3 Int’l Zoo News 154, 160 (2006) (When the Phoenix Zoo converted its management of “problem” elephants from free to protected contact, the changes in management techniques resulted in positive improvements in the elephants’ aggression levels. The intensity of aggressive acts by the two most aggressive elephants dropped significantly, and the number of aggressive acts by one elephant dropped from 28 one year to only seven the following year).