



Statement on Separation of Captive-Born Elephant Calf from Mother For Training in a Circus

Elephant Specialists Alliance International (ESAI) is a global group of elephant specialists representing a range of disciplines, including natural science, conservation, behaviour and psychology, veterinary medicine, animal welfare, academia, animal care and management. Together, we work to provide the best possible fact-based information and scientific evidence to protect wild elephants from capture and export to ex situ destinations and to end the exploitation of elephants in captivity. For more information, see www.elephant-specialist.org

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ESAI has learned that Rostow on Don Zoo has separated a three-year-old female elephant named Ecol from her mother and sold her for use as a performing animal in circuses. Scientific and experiential evidence indicates that the use of elephants in circuses can be physically and psychologically detrimental to these highly intelligent and sensitive animals due to captive conditions that include intensive confinement, chaining, extensive travel in cramped vehicles, and training and management methods that can result in physical and psychological damage. To separate a young elephant from her mother adds an increased likelihood of psychological damage. Ecol is of an age at which calves are still dependent on their mothers, and female elephants naturally remain with their mothers for life – making this separation highly traumatic for both mother and daughter. In addition, Ecol reportedly is kept alone in a barren enclosure with concrete flooring, conditions that are known to adversely affect elephant health and welfare.

For the following reasons, based on fact and science, we at ESAI condemn the transfer of the young female elephant Ecol to a circus and urge that she be returned to her mother.

Elephants are extremely intelligent and highly social animals.

Scientific research has shown that elephants display complex cognitive capabilities¹, great intelligence², sentience³ and empathy⁴. Elephants are also self-aware⁵. They have a highly

¹ Byrne R.W., Bates L.A. & Moss C.J. 2009. Elephant cognition in primate perspective. *Comparative Cognition & Behaviour Reviews* 4:65-70. doi: 10.3819/ccbr.2009.40009

² Poole J. & Moss C. 2008. Elephant Sociality and complexity In: *Elephants and Ethics*. Wemmer C. & Christen C.A. (Eds) Johns Hopkins University Press, Baltimore. pp 69-98.

organized social structure involving strong family bonds that can last a lifetime.^{6,7} These highly regarded qualities are in conflict with the inadequate physical and social conditions found in circuses, resulting in poor welfare.

Female elephants' social relationships are strong and lasting.

Mother-daughter bonds form the core of elephant society.⁸ In fact, females stay with their natal herd and their mother for the entirety of their lives.^{9,10,11,12} These bonds are crucial for the upbringing of a young elephant who has much to learn, including what to eat; how to make tools¹³; vocal¹⁴, tactile, and olfactory communications¹⁵; social abilities and how to behave in elephant society; mothering and allomothering skills¹⁶, and much more. In captivity, the mother-daughter bond maintains its strength and importance, even after years of separation. Recently, a mother and daughter were reunited at a German zoo after being separated for 12 years. Video of the event shows that the two elephants remembered and remain bonded to one another.¹⁷ Clearly, it cannot be considered humane to separate a calf from her mother for any reason, including life in the circus.

Separation of young calves from their mothers causes intense trauma.

The disruption of social bonds in wild-living or captive elephants is physically and psychologically traumatic for the calves, their mothers, and remaining family members, and the negative effects can be severe and lifelong.¹⁸ Traumatic disruption of social bonding from a single event (e.g. separation from or death of a mother) can create lasting changes in

³ Blattner C.E.2019. The Recognition of Animal Sentience by the Law. *Journal of Animal ethics* 9(2) : 121-136 <https://www.jstor.org/stable/10.5406/janimaethics.9.2.0121>

⁴ Bates L.A., Lee P.C., Njiraini N., Poole J. H., Sayialel K., Sayialel S., Moss C. J. & Byrne R.W. 2008. Do Elephants Show Empathy? *Journal of consciousness Studies* 15(10-11):204-225

⁵ Plotnik J.M., de Waal F. & Reiss D. Self-recognition in an Asian elephant. *PNAS* 13. www.pnas.org/cgi/doi/10.1073/pnas.0608062103

⁶ Sukumar R. 2003. *The Living Elephants*. Oxford University Press.

⁷ Wittemeyr G., Douglas –Hamilton I. & Getz W. M. 2005. The sociology of elephants: analyses of the processes creating multitiered social structures. *Animal Behaviour* 69:1357-1371.

⁸ Moss C. 1988. *Elephant Memories: Thirteen years in the life of an elephant*. Elm Tee Books, London.

⁹ Poole J. 1996. *Coming of Age with Elephants*. Hodder & Stroughton GB

¹⁰ *Ibid.*, Moss

¹¹ Wittemeyer G., Douglas-Hamilton I. & Getz W. M. 2005. The sociology of elephants: analyses of the processes creating multitiered social structures. *Animal Behaviour* 69:1357-1371.

¹² *Ibid.*, Sukumar

¹³ Kurt F. & Garaï M.E. 2007. *The Asian Elephant in Captivity*. Foundation Books. Cambridge University Press India Pty. Ltd.

¹⁴ McComb K., Reby D., Baker L., Moss C. & Sayialel S. 2003. Long-distance communication of acoustic cues to social identity in African elephants. *Animal Behaviour* 65:317–329.

doi:10.1006/anbe.2003.2047, available online at <http://www.sciencedirect.com>

¹⁵ <https://elephantvoices.org/elephant-communication/chemical-communication.html>

¹⁶ Vidya T. N. C. 2013. Novel behaviour shown by Asian elephant in the context of allomothering. *acta ethol* DOI 10.1007/s10211-013-0168-y

¹⁷ <https://www.dailymail.co.uk/news/article-8658913/Adorable-moment-elephant-touches-trunks-daughter-German-zoo-12-years-separation.html>
<https://www.dailymail.co.uk/news/article-8658913/Adorable-moment-elephant-touches-trunks-daughter-German-zoo-12-years-separation.html>

¹⁸ Bradshaw G.A. & Shore A. N. 2006. How elephants are opening doors: Developmental neuroethology, attachment and social context. *Ethology* 113:426-436. doi: 10.1111/j.1439-0310.2007.01333.x

social learning abilities and neural organisation.¹⁹ This direct compromise can induce sustained effects on brain plasticity, creating vulnerability for psychopathogenesis (able to cause a psychological disorder). Early attachment trauma is therefore “burnt in” the limbic system and the HPA (hypothalamic-pituitary-adrenal) axis.²⁰

Elephants that have experienced a traumatic event in their early years will retain that event, which becomes ingrained in the neural system of the brain. This is termed Post Traumatic Stress Disorder (PTSD). The trauma memory can be triggered by a small event such as a movement, noise or smell (termed a “flashback”), which make the event feel as if it were being re-lived again. An elephant who has experienced trauma may suddenly show aggression without previously having been aggressive.²¹ Elephants who have experienced the trauma of separation from their mothers cannot be considered “safe” for use in circuses, where there are no barriers between the elephants, handlers, and the public.

Keeping an elephant alone, without other conspecifics, is harmful to health and welfare.

Social deprivation has been shown to result in profound and lasting psychological effects in animals, including self-mutilation, disturbance in perception and learning, total apathy and withdrawal symptoms, anxiety behaviour, aggression, and compromised cognitive processes.^{22,23,24,25,26} Humans simply cannot replace the social environment necessary for elephants’ health and well-being. As a result, elephants may display repetitive rocking (see more below) and other abnormal behaviours that are indicative of poor welfare.

Elephants are not a domesticated species.^{27,28} Captive-held and wild-living individuals are behaviourally and physiologically identical. Because elephants have never been selectively bred by their human captors, their genetic makeup is the same as wild elephants and so are their needs, behavioural responses, and neurology. Elephants who are required to perform on command are forced through harsh training and the continual threat of physical punishment to submit to human control.

¹⁹ Wiedermeyer C.P. 2004. Adaptations or pathologies? Long-term changes in brain and behaviour after a single exposure to severe threat. *Neuroscience & Biobehavioral Reviews* 28(1):1-12.
<https://doi.org/10.1016/j.neubiorev.2003.09.005>

²⁰ Bradshaw G.A. 2009. Inside looking out: Neurological compromise effects in elephants in captivity In: In: An Elephant in the Room: The Science and Well-being of Elephants in Captivity. Forthman D. L., Kane L. F. & Waldau P. F. (Eds) Tufts Centre for Animals and Public Policy. <http://www.tufts.edu/vet/cfa>

²¹ Bradshaw G.A. Elephants on the Edge: What animals teach us about humanity. Yale University press New Haven and London.

²² Dawkins M. S. 2008. The Science of Animal Suffering. *Ethology* doi: 10.1111/j.1439-0310.2008.01557.x

²³ Matsumoto K., Cai B., Satoh T., Ohta H. Watanabe H. 1991 Desipramine Enhances Isolation-Induced Aggressive Behavior in Mice, 39 *Pharmacology Biochemistry & Behav.* 167, 168.
[https://doi.org/10.1016/0091-3057\(91\)90416-Y](https://doi.org/10.1016/0091-3057(91)90416-Y)

²⁴ Washburn D. A. & Rumbaugh D. M. 1991. Impaired performance from brief social isolation of rhesus monkeys (*Macaca mulatta*): A multiple video-task assessment. *Journal of Comparative Psychology*, 105(2), 145–151. <https://doi.org/10.1037/0735-7036.105.2.145>

²⁵ Haney C. 2018. The psychological effects of solitary confinement; A systematic critique *Crime and Justice*, 2018 - journals.uchicago.edu

²⁶ Stowe J. R., Liu Y., J. Curtis J. T., Freeman M.E. & Wang Z. 2005. Species differences in anxiety-related responses in male prairie and meadow voles: The effects of social isolation. *Physiology & Behavior* 86:36–378

²⁷ Kurt F, Mar KU. Guidelines for the management of captive Asian elephants and the possible role of the IUCN/SSC Asian Elephant Specialist Group. *Gajah*. 2003; 22:22–30

²⁸ Roots C. Domestication. Greenwood Press; 2007

Circus conditions do not meet elephants' complex needs.

The restrictions that captivity imposes on an animal's behaviours are increasingly recognised as being deleterious to cognitive development, normal social development, and, later in life, reproduction and health.²⁹ In circuses, living conditions differ drastically from those for which elephants are adapted. Over millions of years, elephants have evolved to be on the move in expansive home ranges, as they travel with their family groups. Elephants' musculoskeletal system and feet are an adaptation for walking long distances.³⁰ Walking for health reasons is vital for elephants, not only physically but for development of the brain.³¹ In circuses, elephants often have no access to natural substrates, little room to walk, travel standing in their own excrement in cramped vehicles, and are near constantly chained. In cold climates, they will spend most of their time indoors and chained. Elephants in circuses do not have access to many of their most basic requirements such as sand, mud baths, scratching opportunities, and water for bathing, and they often are not allowed to freely socialize with other elephants, all of which are necessary for physical and psychological health and welfare. In general, circuses fail to meet elephants' essential social, spatial and feeding requirements which results in reduced welfare, health, and reproduction.³²

Elephant health problems in circuses are directly related to inadequate conditions and performance of strenuous tricks.

Serious health problems in circus elephants are well known, including arthritis, hernia (*Hernia perinealis*), swelling of the knee joints (*Bursitis praepatellaris*), skin calluses (*Tyloma olecrani*), and abscesses.³³ These problems are due in part to being chained in place without the opportunity for self-directed physical activity, and harsh performance practices such as standing on the front or hind legs or sitting upright. Blackleg (bacterial inflammation with necrosis) and foot problems, such as pathological lesions in the pads and nails, split nails, abscesses, torsion, ulcerations, and overgrown cuticles, are common in circus elephants because they have little natural substrate and stand for long hours on chains.³⁴ Although the causes of these problems can be varied, they all indicate poor husbandry systems.³⁵ Musculoskeletal impairments are one of the major health issues in captive elephants, including degenerative joint disease, low bone density³⁶, and ensuing lameness³⁷.

²⁹ Knight J. 2001. Animal data jeopardised by life behind bars. *NATURE* 412:669

³⁰ Poole J. & Ganli P. 2009. Mind and Movement: Meeting the interests of elephants In: An Elephant in the Room: The Science and Well-being of Elephants in Captivity. Forthman D. L., Kane L. F. & Waldau P. F. (Eds) Tufts Centre for Animals and Public Policy. <http://www.tufts.edu/vet/cfa>

³¹ Cotman C. W. & Berchtold N.C. Exercise: a behavioural intervention to enhance brain health and plasticity. *TRENDS in Neurosciences* 25(6):295-301.

³² Iossa G., Soulsbury C.D. & Harris S. 2009. Are wild animals suited to a travelling circus life? *Animal Welfare* 18:129-140

³³ Kuntze A. 1989: Arbeitsbedingte Krankheitsbilder: Hernia perinealis, Bursitis praepatellaris und Tyloma olecrani bei Zirkuselefantinnen. *Verh. Ber. Erkr. Zootiere* 31:185

³⁴ Wendler P., Ertl N., Flügger M., Sós E., Schiffmann C., Clauss M. & Hatt J-M. 2019. Foot health of Asian elephants (*Elephas maximus*) in European zoos. *Journal of Zoo and Wildlife Medicine* 50(3):513-527. <https://doi.org/10.1638/2018-0228>

³⁵ Wendler P., Ertl N., Flügger., Sós E., Torgerson P., Heym P.P., Schiffmann C., Clauss M. & Hatt J-M. 2020. Influencing factors on the foot health of captive Asian elephants (*Elephas maximus*) in European zoos. *Zoo Biology* 39(2):109-120. <https://doi.org/10.1002/zoo.21528>

³⁶ Saddiq H. M. U., Ali R. H., Amjad M. T., Jaleel S., Ali S. M., Fatima N & Ullah S. 2020. Post-Mortem examination of a female elephant suspected of having Degenerative Joint Disease: A case report. *Adv. Anim. Vet. Sci.* 8(10): 1009-1012. Doi <http://dx.doi.org/10.17582/journal.aavs/2020/8.10.1009.1012>

Harsh training and management practices harm elephants.

Circuses use coercive training to control elephants around humans and ensure they perform consistently and on cue. Trainers rely on the bullhook (also called the ankus), a device resembling a fireplace poker with a sharpened metal tip and hook at the end, to dominate and control elephants. For the bullhook to be effective an elephant must be taught to associate the device with pain, otherwise it means nothing to them.³⁸ During training, elephants are restrained and subjected to the excruciating pain the hook can inflict. The elephant learns that the only way to avoid the pain is to submit. As long as an elephant fears the bullhook, the mere presence of the device is enough to subdue this large animal. Handlers constantly reinforce their dominance by forcefully striking, jabbing and hooking elephants during training, performances, and routine handling. The long-term and lifelong negative impact of subjecting wild animals to coercive training should not be underestimated.³⁹

Abnormal repetitive behaviours are ubiquitous in circuses.

Animals kept in conditions where they cannot perform behaviours typical of their species causes psychological suffering.⁴⁰ It is known that wild animals in circuses, particularly when chained⁴¹, may develop abnormal behaviours, with a particular problem being stereotypic behaviour. Stereotypies are repetitive, seemingly functionless actions. In elephants they typically involve repeated rocking from side to side, swaying and head bobbing. The presence of stereotypic behaviour is generally acknowledged to be an indicator of poor welfare.^{42,43,44} Stereotypic behaviours are related to lifelong problems, including foot disease.⁴⁵

General conditions in circuses are stressful for elephants, which negatively affects health and welfare.

Circus life is unnatural for elephants and can result in continual low-level stress. Some factors that may have a negative impact on elephant welfare include inadequate and unnatural social and physical environments; lack of retreat possibility; high noise and light levels, and unfamiliar odours during performances; frequent and long periods on chains; and climate conditions that may differ significantly from the animals' natural environment. In addition, elephants have no level of autonomy over their life, which is necessary for their welfare⁴⁶; its absence compounds the stress factors already noted.

³⁷ Lewis K. D., Shepherdson D. J., Owens T. M. & Keele M. 2010. A Survey of Elephant Husbandry and Foot Health in North American Zoos. *Zoo Biology* 29:221-236.

³⁸ Whittaker, Margaret, Active Environments. Testimony letter sent to California Sen. Lara. March 1, 2016.

³⁹ Born Free Foundation 2016. The use of wild animals in performances ENDCAP. https://issuu.com/bornfreeuk/docs/performing_animals_report_2016

⁴⁰ Dawkins M.S. 1988. Behavioural deprivation: A central problem in animal welfare. *Applied Animal Behaviour Science* 20:209-225.

⁴¹ Gruber T. M., Friend T.H., Gardner J.M., Packard J.M., Beaver B. & Bushong D.2000. Variation in stereotypic behaviour related to restraint in circus elephants. *Zoo Biology* 19:209-221.

⁴² Dantzer R. 1986. Behavioral, physiological and functional aspects of stereotyped behavior: A review and Re-interpretation. *Journal of Animal Science* 62:1776-1786 <http://jas.fass.org/content/62/6/1776>

⁴³ Mason G. J. 1991. Stereotypies: a critical review. *Animal Behaviour* 41:1015-1037

⁴⁴ Mason G. J. & Latham N. R. 2004. Can't stop, won't stop: is stereotypy a reliable animal welfare indicator? *Animal Welfare* 13: S57-69.

⁴⁵ Ibid., Wendler 2020

⁴⁶ <https://www.elephantvoices.org/elephants-in-captivity-7/in-circuses.html>

Elephants in circuses pose a threat to human safety.

In addition to animal welfare considerations elephants are among the animals that kill the most people in circuses.⁴⁷

Recognized zoo associations oppose the use of wild animals in circuses.

WAZA (World Association of Zoos and Aquariums) opposes keeping wild animals in circuses, as does BIAZA (British and Irish Association of Zoos and Aquariums) and EAZA (European Association of Zoos and Aquaria).

Times have changed.

Currently, 28 countries in Europe and a further 16 in other continents prohibit the use of elephants and/or captive wild animals in circuses. In general, the public is turning away from circuses, as evidenced by the closure of the Ringling Bros. and Barnum & Bailey Circus in the United States – once considered the world’s largest circus – in 2017.⁴⁸

Conclusions

Based on the above information and our combined experience and expertise, we conclude that:

1. The separation of an elephant mother and daughter can result in psychological damage to one or both individuals and is highly detrimental to their health and well-being.
2. Inadequate conditions and harmful training practices make it inappropriate to keep elephants in circuses, where their essential needs cannot be met.
3. Social deprivation is immensely harmful to elephant health and welfare.
4. For these reasons, the elephant Ecol should not have been transferred to a life in the circus, and she should instead be returned to live with her mother.

Signed,

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⁴⁷ Gore M., Hutchins M. and Ray J. 2006. A review of injuries caused by elephants in captivity: an examination of the predominant factors. *International Zoo Yearbook* 40: 51-62

⁴⁸ <https://www.nytimes.com/2017/05/21/nyregion/ringling-brothers-circus-takes-final-bow.html>

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