

Statement on ETHOLOGICAL NEEDS AND WELFARE OF WILD ANIMALS IN CIRCUSES

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Introduction

In recent years, there has been an increasing discussion about the justification for the use of wild animals in public entertainment. This has been reflected in different national legislations too and by now, 18 EU-countries have adopted limitations on using wild animals in circuses.

The supporters of the use of wild animals in circuses claim that these animals do not possess the same behavioral and physiological needs as their wild counterparts, as they were born in captivity, sometimes even for several generations, and thus that these animals' welfare is not affected.

The purpose of this document is to provide a broad scientific consensus that this claim cannot be substantiated by scientific arguments. This statement clearly explains the differences between tamed and domesticated animals and lists the welfare implications that life in circuses has on the welfare of wild animals, both at individual and social levels. ***The undersigned scientists with extensive research records in wildlife biology/ ecology/ ethology, pose that wild animals are not suited for a life as circus entertainment.***

Tamed or domesticated: a crucial difference

Wild animals in circuses are individuals forced to adapt to and submit themselves to humans. Often, they have been hand-reared (Harris et al, 2006), which made them less fearful to humans (Pedersen, 1994; Trut, 1999; Pedersen and Jeppesen, 1999). These individuals are sometimes referred to as *tamed* animals, but they cannot be considered domesticated (Harris et al, 2006). A part for the elephants, that are mainly wild-caught, circuses breed with animals available to them (Kiley-Worthington, 1989, Kiley-Worthington , 1990), and there is no evidence on consequent selective reproduction (Harris et al, 2006). Thus, genetically wild animals in circuses are identical to their wild conspecifics. They express similarly high motivation to perform their species-specific behaviors (Price, 1984; Price, 1999) and also their instincts are unaffected. As a result, (tamed) wild animals in captivity are often unpredictable and under stressful circumstances likely to become aggressive (Belayev, 1979; T. A. E.R. Project, 2008).

In general one can say that 'tamed' is a term restricted to *individual* animals, while the term 'domesticated' refers to animals on *species* level which are result of long-lasting selective breeding process. Over many thousands of years, only few species have been domesticated, others may not become so even after many generations of selective breeding (Price, 1984). An animal species is considered domesticated when it has undergone genetic changes that alter its appearance, physiology, and, consequently, its behavior (Ricker et al., 1987; Price, 1999). This

lengthy process requires selection for specific traits for many generations on row, which can mean many dozens of years or even centuries (Belayev, 1979; Trut, 1999), depending on the strictness of selection and reproductive rate of the species concerned.

Main welfare implications of a circus life for wild animals

- **Limited space availability:** circus animals spend the majority of the day confined, about 1-9% of the day performing/training and the remaining time in exercise pens (Nevill and Friend, 2006). These are often significantly smaller than minimum zoo standards for outdoor enclosure (Iossa et al., 2009). Constrained housing conditions of circus animals are likely to induce pacing behavior in big cats (Clubb and Mason, 2003) and elephants (Gruber et al, 2000).
- **Maternal separation:** in order to tame them, infant wild animals in circuses are regularly separated from their mother and hand-reared (Harris et al, 2006). This increases stress-related behavior and elevated and prolonged stress-response (Dettling, 2002; McEwen, 2007; Reimers et al., 2007). These effects can last into adulthood in terms of increased stress sensitivity (Cirulli et al, 2009), occurrence of abnormal behavior (Latham and Mason, 2008), increased aggression (Howard et al, 1981) and susceptibility to psychopathology (Cirulli et al, 2009; Freund et al, 2013).
- **Restricted social interactions:** in entertainment practices it is often unavoidable that social animals are housed singly, in groups smaller than the average in the wild or in unnatural groupings (Agoramoorthy and Hsu, 2005). This prevents establishment of normal social dynamics and has significant consequences for behavior, welfare and reproduction (Price and Stoinski, 2007).
- **Frequent traveling:** wild animals show signs of behavioral and physiological distress when travelling (Montes et al, 2004), in contrary to habituation seen in domesticated animals (Grandin, 1997). A study of captive black rhinoceroses demonstrated a connection between transport and the immediate development of a skin disease (Munson et al, 1998). Although habituation to travel was suggested (Kiley-Worthington, 1990; Toscano et al, 2001), in circus tigers pacing was reported to increase with prolonged travel time (Nevill and Friend, 2006) as were altered levels of stress hormones [Dembiec et al, 2004].
- **Training and performance:** the majority of the evidence available suggests that performance acts in the presence of spectators may cause severe stress to wild animals (Hossey, 2000; Carlstead & Brown, 2005). These stressful situations include restricted movement options, incorrect (artificial) lighting, exposure to loud or aversive sounds, uncomfortable or disturbing odors and temperatures (Morgan and Tromborg, 2007). The type of training that is used highly affects the welfare of the animals, since training procedures that include physical punishment will be stressful for and impose fear on the animals undergoing them (Morgan and Tromborg, 2007). Finally, joint and hernia problems result from circus elephants repeatedly assuming unnatural positions during performance (Kuntze, 1989). Stereotypic behavior is associated with performances in circus elephants (Friend and Parker, 1999) and tigers (Krawcel et al, 2005).

Conclusions

Wild animals used in circuses are tamed, not domesticated, and evidence from literature demonstrates that circuses are an unsuitable environment for wild animals. For wild animals in general, circuses fail to provide some of the most basic social, spatial and health requirements. The ability to execute many natural behaviors is severely reduced, while the animals are obliged to perform unnatural behavior. As a direct consequence, their welfare, health and reproduction are significantly reduced.

Highly social animal species such as elephants and wide-ranging species like big carnivores are amongst the most popular species kept in circuses (Galhardo, 2005), whereas they also appear to be the least suitable to circuses (T. A. E. R. Project , 2008; Iossa et al, 2009). This has already been recognized in many countries across the world where (some or all) wild animals have become prohibited in circuses.

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