



ELEPHANT TRUST

## **Amboseli Trust for Elephants**

### ***Statement on social, behavioural and welfare aspects of the capture and training of elephant calves for elephant-back safari businesses in Kwa Zulu Natal Province, South Africa***

We, the undersigned scientists, represent the views of the Amboseli Elephant Research Project, the longest study of individually known elephants in the world.

We have been asked to comment on aspects of the capture and training of young elephants for use by the elephant-back safari industry. Based on our scientific knowledge of elephants, their social and emotional complexity and cognitive abilities, this practice undoubtedly causes immense trauma to the elephants and their families and is unquestionably cruel (Moss, 1988; Poole 1996; Poole & Moss, in press; Appendix 1). As we have such grave concerns over the very principle of this action, it is simply not possible to design a methodology that would be acceptable under *any* conditions. In addition, we consider the capture of young elephants to be a very short sighted and unimaginative approach to reducing or controlling the number of elephants in areas that are generally too small to have them in the first place.

South Africa is well known for its stance on the commercial exploitation of wildlife. Despite the country's utilitarian views regarding wild animals, it is, nevertheless, unconscionable that the practice of abducting elephant calves is still permitted. Considering the Tuli debacle, the continuing high profile international focus on the ethics of culling elephants, and the wealth of scientific data pointing to the extreme sociality and intelligence of elephants, it is also astounding that the government would permit the capture of elephant calves and juveniles.

#### ***1. Issues related to the capture (helicopter), for both the herd and the captured infants***

Eyewitness reports of the recent operation in Selati verify that the capture of elephants included chasing and herding of the elephant group by helicopter for over 10 hours, as well as darting and immobilizing, chaining, winching and other rough handling of the captured calves and juveniles. The screams of the captured elephants caused family members to attempt to rescue them. A young male was so persistent that to keep him at bay, capture staff fired at him. All of these are obvious stressors for elephants – as evidenced from similar events for contraception or radio collaring. The monitoring of stress indicators by welfare officers confirmed the very high levels (Appendix 2 pages 2/3). These stressors would affect all individuals (those caught and those left behind), but might also be associated with physical trauma, dehydration, and immune system suppression for calves during the capture as well as longer-term psychological trauma.

In addition to the immediate stress and longer-term trauma experienced by both the family and the captured calves, the excellent memories of elephants means that all these individuals are more likely to respond fearfully and/or aggressively toward humans, vehicles and helicopters in future. Social learning plays an important role in elephant society, and this behavior will, therefore, have widespread effects on the population as a whole (Lee & Moss 1999).

2. *Impact on social dynamics of herds when individuals (4-9 yr old young calves) are removed*

Elephants between the ages of 4 and 9 constitute calves and juveniles. We know from years of observations that calves that are orphaned (i.e. those whose mothers have died) become listless and appear depressed (also D. Sheldrick, pers comm.). We also know that separating young elephants from their mothers and all other family members can cause lasting trauma (Slotow et al., 2000; Bradshaw et al., 2005; Lee & Moss, forthcoming). Our field data show that orphaned elephants have higher risk of mortality throughout life - some form of physiological or psychological vulnerability results even when such orphaned calves remain with the other relatives in their close families (Lee & Moss, forthcoming).

Young elephants learn normal behaviour in a social context (Lee, 1986, Lee & Moss, 1999). If removed from a context where they have an older, experienced individual (or a teacher), they are likely to engage in inappropriate responses to their physical environment, to take foraging risks, or possibly even to starve (Lee, 1987). In addition, the trauma of social loss may be even more significant. Young elephants rely on their social companions to learn appropriate behavioral responses to others (Lee & Moss 1999). They are in continual olfactory and vocal contact with mothers and others (Poole, forthcoming) and remain within two meters of their mothers or another caretaker for most of the first five years of their life (Lee, 1986). They follow their mothers' social responses and learn who are their relatives and friends, and who represents potential threats. In the complex social world of an elephant, the presence of older family members ensures normal friendly social behaviour and reduced levels of aggression. It allows for observation of sexual behaviour between adults, and the practice of appropriate actions during play - a non-threatening context for learning about size, strength and the level of physical contact that is appropriate (Lee, 1986; 1991). Contact with other juveniles during play or care taking provides vital experience in rearing calves, essential to subsequent reproduction and non-abusive care-taking of their own infants (Lee, 1987, 1989).

These complex biological and emotional responses of calves (and their mothers) to separation have evolved for a reason. Every elephant calf is biologically extremely important to its mother because she must invest so much time, energy and effort in producing and rearing a calf to adulthood: 22 months of gestation, four years of lactation, at least 12 years of rearing and protection. As a consequence elephants have evolved extraordinarily developed behaviours of caring and bonding with their calves (Lee & Moss, 1986). If a calf is to survive to adulthood it too must form intense close bonds with its mother and other family members. These bonds involve tremendous emotional attachment, which if broken cause individuals extreme suffering (Moss, 2000; Poole, 2000).

There is the additional problem of a potential increase in aggressive behaviour of both the captured animals and their remaining families. Elephants "broken" by trauma and trained by fear are perfectly capable of retaliating much, much later on the humans who might be riding them. On the other hand, the family members remaining in the reserve after the removal of juveniles are also likely to be deeply affected. The capture operation is traumatic in itself, involving chasing, noise and frightening human activity over a period of several hours, and it will not be forgotten. There is emerging evidence that the violent removal of calves has resulted in greater aggression towards humans by the mother and other family members (J Poole, personal observations).

The removal of juvenile elephants from an elephant family has an additional impact. Juvenile females act as "allomothers", who care for younger calves. Data suggest that the presence of these older sisters and helpers is statistically significant in keeping calves alive. This direct effect on survival is one aspect of the role that allomothers

play; they may also free the mother from infant care duties, so that she can spend more time feeding, improving the nutritional plane of herself and the milk she produces. Young elephants of both sexes act as play partners for their younger siblings, with the benefits for social development noted above. Removal of these juvenile animals has significant impact on the social cohesion and behavioural well being of the family as a whole. Although elephants may repair social bonds after separation, it is likely that the longer juveniles are absent from their families, the longer it will take to rebuild relationships, particularly among females.

3. *Risk of abuse and cruelty to the elephants during training. Can a wild elephant be trained for elephant back riding without cruelty, with kindness and respect as claimed by the "training facility"?*

The vast majority of animal trainers who are well versed with welfare issues agree that by using *protected contact* an elephant can be trained without cruelty and with kindness and respect. In *protected contact* the trainer and elephant do not share the same space and the elephant learns to respond to verbal commands through positive reinforcement *only*. In other words, if an elephant does not want to cooperate it is free not to and will not suffer any repercussions. The important element of this form of training is that the elephant maintains its *free will and autonomy*.

The vast majority of animal trainers with a welfare perspective also agree that training through *free contact* (in which elephant and trainer share the same space) must, by definition, employ some level of cruelty. Since the risk of attack by an elephant has such dire consequences, a trainer sharing the same space with the elephant must ensure that the animal obeys its commands *at all times*. It is not possible to get an animal as large as an elephant (whose own system of social rank is based on body size) to do something that it does not want to do without some level of fear and intimidation. Such fear of the trainer is built up through a process of breaking the elephant and then maintaining that position of dominance over the elephant.

We have received a report (Appendix 3) on the methods that are currently being used in the initial periods of training, which include solitary confinement, in an artificially darkened environment, confinement with 24 hour light, poking with an *ankus* or electric cattle prod, chains that are capable of being tightened, winches for stretching the elephant into an uncomfortable position, chained in deep water, and nooses around the neck and legs. These methods are obviously archaic. We have learned enough about elephants at this stage to say that they live in a highly complex society, they are capable of using and modifying tools, they are capable of imitation, of compassion, of grief, they have excellent memories and they are self aware. With this knowledge it is equally valid to claim that the methods being used to train elephants can be, and should be viewed as torture.

Elephants are keen social learners. In other words, much of elephant behavior is not instinctive but learned from watching or listening to others (Lee & Moss, 1999; Poole et al., 2005; Hart et al., 2003; Wemmer & Mishra 1982; Wemmer et al., 1985). Such learning is seen in many aspects of an elephant's daily life and is a vital component of learning. Elephants, too, are capable of empathizing with others (Douglas-Hamilton et al., 2006; Poole & Moss, in press) and have even been observed to wince when a companion reaches its trunk out toward an electric wire (Poole & Granli, personal observation). These scientific facts mean, therefore, that when an elephant is jabbed or poked with an *ankus*, poked with an electric prod, this action has negative psychological consequences not only for the individual elephant receiving the prod, but also for those around it. In other words, the routine use of cruel training methods causes psychological harm to elephants whether they are being hit or not.

Many of the training methods make use of sensitive areas of the body. For example, an ankus may be used behind the ears where the skin is paper thin, around the eyes where the skin is also very thin, and on the feet, trunk and around the mouth which are highly enervated (Rasmussen and Munger, 1996; O'Connell et al. 1998). These areas are all extremely sensitive to the touch. The tip of an elephant's trunk has layers of cells called Pacinian corpuscles that are extremely sensitive to vibrations (Rasmussen and Munger, 1996) and it has been suggested that perhaps these cells may also occur in the fleshy pads of an elephant's feet.

4. *Monitoring and inspection. Can abuse be hidden, are there telltale signs of abuse and harsh training that can be detected during short inspections? Physical or psychological? Are short unannounced visits at intervals sufficient to detect cruelty?*

Short inspections at spaced intervals are unlikely to detect most cases of abusive treatment. It is very easy for keepers to temporarily suspend cruel activities and even unannounced visits may fail to catch harsh practice "in the act". Constant surveillance is likely to be the only reliable way to detect offenders. A *very well trained* elephant observer could probably detect longer-term signs of abuse and poor keeper relationships even in the absence of stereotypic behaviour, which is easy to detect.

One of us currently has a student working (protected contact only) with three rescued elephants at Blair Drummond Zoo in Scotland. These elephants use incredibly subtle postures, orientations, gaze and vocalizations to indicate their relationships with each other and those with their keepers.

Another one of us has viewed, for many hours, circus elephants who have endured a lifetime of physical and emotional abuse. Wild elephants express a wide range of behaviors, postures and behaviors (Poole & Granli 2003) while circus elephants are remarkable for their almost unanimated, expressionless stance. Again a well-trained observer might be able to pick up these subtle differences. It should be noted that the development of such observational skills requires a substantial investment of time working with both normal and stressed elephants and this training may be beyond the resources of provincial government offices.

In addition, the absence of such telltale signs does not mean that abuse has not occurred. Extreme levels of psychological abuse have occurred with the separation from family, well before training begins. The physical marks of chaining or excessive bullhook use on sensitive tissues around the ears or eyes may or may not be present in abused animals; while their presence is proof of mistreatment, their absence is not firm evidence of good practice. Even if an elephant is no longer treated cruelly, the important thing to realize is that in the initial training period the whole point is to break the elephant's will through very cruel methods.

5. *How is ongoing discipline maintained throughout their lives, and if discipline techniques are used how is this hidden from the tourists who ride them? It is being sold as a humane romantic activity, and the tourists who ride them appear to come away feeling that the elephant enjoys the interaction with them?*

Elephants are broken through the techniques that are described in the report. Once dominance has been established it can be maintained through a delicate balance of fear and reward. If the elephant is "good" (does what it is told) it receives treats. If it is "bad" it is yanked on the ear with the ankus, prodded on the legs, shouted at, etc. In our opinion, the training methods used physically, behaviorally, psychologically and emotionally harm the elephants. People who use bullhooks often claim that these instruments are only a "guide". In the wild dominance between elephants is based on age-dependent body size (Poole, 1989; Archie et al., 2006). Thus older, larger animals rank above smaller younger animals. The only way a human being (approx. 1/60 the

weight of an elephant) can rank above an adult elephant is either through fear, learned helplessness, or in rare cases through respect based on companionship and trust. By maintaining a fear of the consequences, bullhooks and other “guides” ensure that an elephant will engage in activities it would rather not engage in (such as stand still in a line; defecate on command; etc). The fear of being jabbed, however lightly, ensures that an elephant obeys commands or follows a guide, if you will. In this process, however, the independent will, choice, autonomy and purpose that we argue is so important to the life of an elephant is destroyed.

These routine disciplinary techniques are not necessarily hidden from the tourists. The mahout sits on the neck of the elephant and continuously yanks on the elephant’s ear with the sharp hook of the ankus if the elephant is not doing precisely what it has been asked to do (e.g. go left, go right), or it is poked in the soft part of the foot or under the chin, etc to get it to lie down, stand up etc. These constant pokes and prods keep the elephant in line as it knows through experience and from watching others that there are more serious consequences for disobeying.

Tourists watching this interaction do not understand the tortuous process by which the elephant has come to “accept” its situation. If people were shown what it involved, the capture, the training, we doubt that there would be many elephant safaris sold.

6. *In your judgement would a 15-month training period (from first capture to sale for riding) constitute a short or long training period? We understand that short fast training cannot be done without harsh methods, but what period would be considered long or short?*

We are of the opinion that given a long enough period, and with patience and genuine kindness, one could make a loyal friend of an elephant. In other words, one could train an elephant through positive reinforcement to be a companion. As with protected contact training, the elephant would cooperate because she wanted to, not because she had to.

The problem with the elephant-back safari business is that it demands not a companion, but a loyal servant who must perform according to someone else’s schedule and will, rather than his own. In this situation the trainer must remain dominant to the elephant and the only way to do this is through a combination of punishment and reward. In addition, due to the very real possibility that an elephant may rebel, taking revenge and injuring or killing a trainer or a tourist, control over the elephant’s activities and behavior must be absolute.

In answer to your question, though, we agree that a shorter period would require harsher methods than a longer period. As long as what is expected of the elephant must prevent her from following her own free will, then the training will include methods that we consider cruel.

7. *Do you have information or sources that would provide us with details of the different training methods used in Indonesia, Asia, Africa and India, and how they differ? The "training facility" that has set itself up claims it uses positive reinforcement with food and "whisperer" techniques and that this is very different to the Tuli situation. Yet, NSPCA has witnessed cables and the apparatus that is used to stretch legs diagonally, and they have chains and ankuses that are being used. We are concerned about this.*

Based on the descriptions of the capture and the training, there is very little that looks like positive reinforcement.

8. *General comments on the wisdom and suitability of domestication of wild-caught elephants*

No matter how much training is done you will never have a “domesticated” elephant. In biological terms, domestication takes many generations of selective breeding. This has never been done with elephants and thus “domestication” is a misnomer. What you will have is a population of captive wild elephants with all of the problems that that implies.

In our opinion, South African wildlife authorities have made some very obvious elephant management mistakes. The stocking of small, fenced private reserves with elephants was bound to lead to “overabundance” within just a few years. Now, in trying – ostensibly – to rectify that situation, landowners are causing another serious problem: a growing number of captive wild elephants with all of the welfare issues that are bound to follow (just look at the public relations problems the zoo and circus environments in the US and Europe are having now, if you are in any doubt).

Has anyone considered what will happen in a few years when the numbers of elephants in Selati and other reserves are once again high?

Has anyone considered the *insurance costs*, especially since many of your clients are American and accordingly litigious?

How will you deal with the onset of musth in male captives, when starving and 24-hour chaining is not an ethical option and riding them not a safe option?

The public outcry (lawsuits, media, protests) against the treatment of captive elephants in zoos and circuses in the west is increasing rapidly and it is only a matter of time before this swell of public opinion hits South Africa.

These are animals with a potential lifespan of some 50-60 years post capture. What will happen to these captive elephants as they age, reaching the point when they are no longer economically viable? Who will be held responsible for their proper care?

***Elephants are renowned for their memories, intelligence, and sociality. Similar to those of humans, these traits also make them particularly vulnerable to stress and trauma and their long-term consequences (Bradshaw et al., 2005). These effects would be long-lasting both for the animals removed from their families and for those remaining in the reserve. Our strong recommendation is that the authorities order, with all urgency, an immediate moratorium on the capture and training of young elephants, and prohibit all removals of this nature in future.***

Cynthia Moss, DSc., Director AERP, Trustee ATE

Joyce Poole, PhD., Research Director, AERP

Phyllis Lee, Prof., ATE Scientific Advisory Panel

Keith Lindsay, PhD., ATE Scientific Advisory Panel

Harvey Croze, PhD, Senior Advisor ATE

Petter Granli, ATE Scientific Advisory Panel

## References

- Archie, E., Morrison, T.A., Foley, C.A.H., Moss, C.J. & Alberts, S.C. Dominance rank relationships among wild female African elephants, *Loxodonta africana*. *Animal Behaviour* 71:117-127
- Bradshaw, I.G.A., Schore, A.N. Brown, J.L., Poole, J.H., Moss, C. J. 2005. Elephant Breakdown. Social trauma: Early trauma and social disruption can affect the physiology, behaviour and culture of animals and humans over generations. *Nature*, 433: 807.
- Douglas-Hamilton, I., Bhalla, S., Wittemyer, G. & Vollrath, F. in press. Behavioural reactions of elephants towards a dying and deceased matriarch. *Applied Animal Behaviour Science*.
- Hart, B, LA Hart, M McCoy & CR Sarath. 2001. Cognitive behaviour in Asian elephants: use and modification of branches for fly switching. *Anim Behav* 62:839-847.
- Lee, P.C. (1986) Early social development in African elephants. *National Geographic Research* 2: 394-401.
- Lee, P.C. & Moss, C.J. (1986) Early maternal investment in male and female African elephant calves. *Behavioural Ecology and Sociobiology* 18: 353-361.
- Lee, P.C. (1987) Allomothering among African elephants. *Animal Behaviour* 35: 278-291.
- Lee, P.C. & Moss, C.J. (1999) The social context for learning and behavioural development among wild African elephants. In: Box, H.O. & Gibson, K.R. (Editors) *Mammalian Social Learning; Symposium of the Zoological Society of London* 72, pp. 102-125. Cambridge University Press, Cambridge.
- Lee, P.C. (1991) Reproduction. In: Eltringham, S.K. (Editor) *Illustrated Encyclopedia of Elephants*, pp. 64-77. Salamander Press, London.
- Lee, P.C. (1991) Social life. In: Eltringham, S.K. (Editor) *Illustrated Encyclopedia of Elephants*, pp. 48-63. Salamander Press, London.
- Lee, P.C. (1989) Family structure, communal care and female reproductive effort. In: Standen, V. & Foley, R. (Editors). *Comparative Socioecology*, pp. 323-340. Blackwells, Oxford.
- Lee, P.C. & Moss, C.J. (forthcoming) Calf development and maternal rearing strategies. In Moss, C.J. & Croze, H. *The Amboseli Elephant: a long-term perspective on a long-lived animal*. University of Chicago Press - in the press.
- Moss, C. 1988 *Elephant Memories: Thirteen Years in the Life of an Elephant Family*. New York: William Morrow.
- Moss, C. 2000. A passionate devotion. In: Bekoff, M. (ed) *The Smile of a Dolphin: Remarkable Accounts of Animal Emotions*. Discovery Books, New York, 134-137.
- O'Connell, C., Hart, L. & Arnason, B.T. 1998. Comments on "Elephant hearing". *J. Acoust. Soc. Am.* 105:2051-2052.
- Poole, J.H. 1989. Announcing intent: the aggressive state of musth in African elephants. *Anim. Behav.* 37: 140-152.
- Poole, J.H. 1996. *Coming of Age with Elephants*. Hyperion Press, New York; Hodder & Stoughton, London.

- Poole, J. H. 2000. When Bonds are broken. In: *The Smile of the Dolphin: Remarkable Accounts of Animal Emotions*. Marc Bekoff (Ed.). Discovery Books, New York: pp. 142-143.
- Poole, J.H. & Granli, P.K. 2003. Visual and Tactile Signals of African Savanna Elephants, [http://www.elephantvoices.org/index.php?topic=what\\_comm&topic2=what\\_comm/visual\\_tactile\\_signals.html](http://www.elephantvoices.org/index.php?topic=what_comm&topic2=what_comm/visual_tactile_signals.html)
- Poole, J. H., Tyack, P. L., Stoeger-Horwath, A. S. and Watwood, S. 2005. Elephants are capable of vocal learning. *Nature* 434: 455-456.
- Poole, J.H. & Moss, C.J. In press. Elephant sociality and complexity: The scientific evidence. In: *Never Forgetting: Elephants and Ethics*. C. Wemmer & K. Christen (Eds.).
- Rasmussen, L.E.L. and Munger, B. L. (1996) The sensorineural specializations of the trunk tip (finger) of the Asian elephant, *Elephas maximus*. *Anat. Rec.* 246:127-134.
- Shoshani, J., Kupsky, W.J. & Marchant, G.H. 2006. Elephant brain Part I: Gross morphology, functions, comparative anatomy and evolution. *Brain Research Bulliten* 70: 124-157.
- Slotow, R., G. van Dyke, J. Poole, B. Page & A. Klocke. 2000. Older bull elephants control young males. *Nature*, 408: 425-426.
- Wemmer, C, HR Mishra. 1982. Observational learning by an Asian elephant of an unusual sound production method. *Mammalia* 46(4): 557.
- Wemmer, C, H. Mishra & E Dinerstein. 1985. Unusual use of the trunk for sound production in a captive Asian elephant: a second case. *J. Bombay nat. Hist. Soc.* 82(1): 187.