

A Review of the Welfare of Zoo Elephants in Europe

A report commissioned by RSPCA

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CONTENTS PAGE

CHAPTER 1. INTRODUCTION AND METHODOLOGY	1
Aims of this report	2
Laws and regulations relevant to zoo elephants	3
Assessing elephant welfare	4
Methodology	7
Structure of this report.....	12
CHAPTER 2. ELEPHANTS IN THE WILD	13
Classification, morphology and biogeography.....	14
Basic ecology and behaviour in the wild	15
Conservation status and range.....	17
Summary.....	20
CHAPTER 3. ELEPHANTS IN CAPTIVITY	22
History of their use by man	23
Numbers held in captivity.....	24
Source of zoo elephants	28
Are zoo elephants domesticated?	33
Summary.....	35
CHAPTER 4. GENERAL HUSBANDRY	37
Handling systems in use.....	38
The physical environment.....	39
Aspects of husbandry	43
Welfare concerns regarding general management and husbandry	50
Summary.....	56
CHAPTER 5. SOCIAL ASPECTS OF THE ZOO ENVIRONMENT ...	58
Elephant social systems in the wild	59
Group size in zoos	62
Welfare concerns regarding social aspects of the zoo environment	78
Summary.....	86

CHAPTER 6. ELEPHANT HANDLING AND TRAINING..... 89

Elephant training – an overview..... 90
 An overview of animal training: general principles..... 92
 Traditional/free contact elephant training..... 96
 Alternatives to traditional elephant training and their effect on the welfare of zoo elephants 130
 Summary..... 142

CHAPTER 7. MORTALITY RATE..... 144

Longevity..... 145
 Age-specific mortality..... 147
 Summary..... 162

CHAPTER 8. CAUSES OF MORTALITY AND MORBIDITY 164

Causes of infant mortality 165
 Causes of mortality in older elephants..... 173
 Summary..... 193

CHAPTER 9. REPRODUCTIVE PROBLEMS 195

Captive-breeding rate: an overview 196
 Is the low breeding rate simply caused by breeding opportunity?..... 200
 Age-specific fecundity 201
 Possible causes of the shortened reproductive life of zoo females..... 207
 Physiological problems affecting breeding rates in reproductive females..... 211
 Physiological problems affecting breeding rate in males..... 215
 Behavioural problems affecting fertility in males..... 218
 Summary..... 219

CHAPTER 10. BEHAVIOUR PROBLEMS..... 221

Behaviour studies 222
 Stereotypic behaviour 222
 Intra-specific aggression 230
 Aggression directed at humans 232
 Summary..... 233

COLLATED CHAPTER SUMMARIES 235

CHAPTER 11. CONCLUSIONS AND RECOMMENDATIONS 246

The welfare of zoo elephants..... 247
Implications of these findings..... 249
Solving these problems 250

REFERENCES 253

APPENDIX I. ELEPHANT HANDLER QUESTIONNAIRE I-VIII

APPENDIX II. DIETARY RECOMMENDATIONS IX

APPENDIX III. FOOT PROBLEMS AND THEIR CAUSES X

CHAPTER 11. CONCLUSIONS AND RECOMMENDATIONS

about 50% longer than that of zoo animals). Infant mortality rates are also much higher (more than double) in zoos than in timber camps. The causes of the relatively high adult mortality rates are hard to quantify, due to the lack of comparable data from wild or extensively housed animals. However, illness is the main reason why zoo elephants tend not to die of 'old age'; we also identified giving birth before the age of 12 (or some correlate of this, such as early puberty) and being captive born, as significant risk factors. Indeed, captive born elephants have a 60% lower life expectancy than those caught from the wild, living to an average age of just 15 years. The incidence of veterinary conditions possibly caused by excess body weight and/or stress (e.g. coronary and circulatory pathologies; skin infections; and lameness due to superficial foot infections and/or arthritis) was also particularly noteworthy. Causes of the high infant mortality in zoos were clearer, however, as they largely arise from stillbirths, maternal rejection and infanticide, which are all seemingly rare in timber elephants, and perhaps also wild elephants. Further reproductive problems consistent with poor welfare include poor conception rates and long inter-birth intervals; and a cessation of reproductive competence in adult females long before it would occur in the wild or in timber camps. Ovarian cysts are notably much more common in zoo than wild elephants – another condition possibly due to excess body weight. Finally, behavioural anomalies consistent with poor welfare included stereotypies, present in 40% of animals for which there are behavioural data; and possibly high levels of aggression directed at other elephants, as well as handlers. Overall, our conclusion is that zoo elephants generally experience poor welfare, stemming from stress and/or poor physical health.

Cost-benefit considerations

If there were numerous benefits from keeping elephants in zoos, then the welfare costs involved might be regarded as acceptable. After all, their welfare is arguably no worse than that of the broiler chicken or laboratory mouse, both forms of animal-use society deems acceptable. On the other hand, if there were few perceived benefits, it would be harder to justify the welfare costs; the farming of mink, for example, was recently banned in the U.K. despite these animals having very low morbidity and mortality. So do the benefits of keeping elephants in zoos justify the *status quo*?

Weighing up incommensurables like this is a subjective process, but we would argue that the benefits of keeping elephants in zoos do not outweigh the costs. As we saw in Chapter 3, zoo elephants have no direct conservation role and their indirect conservation role is unquantified. They have enabled some fascinating and very useful research to be conducted, but zoo elephants are hardly kept 'for research', and it is not obvious that this research could only have been done in zoos. This leaves their role as that of providing entertainment and diversion – important for humans, and indeed a common role for animals (cf. the many that live as pets), but probably not a role most would regard as justifying poor welfare. In addition, there are great financial costs involved in keeping elephants (see Chapter 3), and also great costs in terms of keeper safety (see Chapter 10).

CHAPTER 11. CONCLUSIONS AND RECOMMENDATIONS

Happily, we suspect many zoos also agree with this analysis. Good zoos would all probably argue that their animals should have not just adequate, but *excellent*, welfare. Zoos have far more scope than most farms or laboratories to give their animals large amounts of space and a variety of environmental enrichments; zoo animals should also receive excellent diets and good, rapidly-available veterinary care; and be exposed to minimal predation or intra-specific aggression. They should also receive high levels of individual attention, and indeed are often cared for by dedicated and well-trained keepers. It is thus unlikely that zoos themselves would regard the situation for elephants as acceptable (and indeed some, such as Edinburgh Zoo and the Cotswold Wildlife Park, already elect not to keep them because they do not believe they can do so adequately).

Implications of these findings

One implication of these findings is that free contact management, the most common system used in Europe and one often said to tackle deficits in the physical and/or social environment of zoo elephants, is obviously not working. We thus agree with Schmid's (1998) assessment that: "The necessary activities of humans in Free Contact keeping of elephants, like skin care, treatment of feet, intervention in social conflicts between the animals, and training activities to maintain physical health through additional movement, show that there are great defects in all elephant keeping systems. No other zoo animal is kept in circumstances, which necessitate such regular human intervention. Keeping animals in natural social units to prevent behavioural disturbances is achieved with most species in zoos, but not with elephants. Zoo elephant keeping needs innovations, but it makes no sense to compensate for unsolved deficits in enclosure enrichment by the use of restrictive keeping methods such as restraining chutes. The right way will be to remove the deficits, e.g. by enrichment to guarantee the wearing-down of feet, skin care and occupation, as well as by forming natural social units...". Free contact may make the best of a bad job, especially for keepers that have 'inherited' small or old-fashioned enclosures (see its positive effects on bodyweight, for example; Chapter 6), but more fundamental solutions would seem needed to really address elephants' housing problems.

The second implication of our findings is that adding any more elephants to the zoo population, either through importation or captive breeding, now looks very hard to justify. There are significant welfare costs to the animals involved, and these are not offset by any real benefits. In addition, captive breeding would seem to bring with it additional welfare costs. For example, a calf born in a zoo has a 10 to 30% chance of dying in its first year, and a one in ten chance that it will be killed or rejected by its own mother; it is likely to be separated from her prematurely, and even if it survives infancy, its mean life expectancy is only 15 to 16 years. Captive breeding also brings with it practical problems, too, as the 50% of progeny that are male are very difficult to house well and safely, and as yet no provisions have made for the expected increase in captive births. And if we turn to importation, in many cases this is only allowed under CITES for the purpose of conservation,