

exercise, climatic factors (cold and wet), inappropriate substrates (hard and wet), diets and social structures, early weaning, and exposure to aversive stimuli during training. However, the authors are cautious in inferring links between signs of poor welfare and husbandry: "In rare instances, scientific data allowed us to make a link between specific aspects of husbandry and welfare — but for the most part these issues remain unresolved due to a lack of research". In view of this, they propose a project to explore the causes of welfare problems. This would involve investigating across a wide sample of captive elephant facilities the impact of various environmental parameters (eg enclosure design and husbandry) on indices of welfare status including mortality, reproduction, disease incidence and behaviour problems.

The report includes a brief discussion of cost–benefit considerations, addressing the question of whether the keeping of elephants in zoos can be justified on the grounds that, although there may be associated welfare problems, these are outweighed by the benefits (eg for education, research, or public interest). The authors do not believe that the benefits do outweigh the costs.

Incidentally, as it is stated in the report that the pros and cons of keeping farm, pet or zoo animals are never formally weighed up in this way, it is relevant to point out here that this is no longer the case in the UK. The new edition of the Secretary of State's Standards for Modern Zoo Practice (DEFRA 2000) requires that "Zoos should establish ethical review processes or seek appropriate help in planning and implementing their conservation, education and research strategies". This ethical review process was introduced particularly to address "situations where the use of animals (eg acquisition, management or disposal for conservation, education or research) may be in conflict with the best welfare interests of the animal or animals involved" (DEFRA 2000).

Clubb and Mason conclude with four recommendations: first, that the factors responsible for poor welfare require urgent investigation; second, that, meanwhile, importation and breeding should cease; third, that various measures should be undertaken to improve social and physical environments; and fourth, that, in future, elephants should be kept only by zoos that can solve their welfare problems.

This report will no doubt stimulate further debate about the care of elephants. It is well written and presented and contains a great deal of valuable information and analysis. It should be read by everyone involved in captive elephant management in Europe and elsewhere.

A Review of the Welfare of Zoo Elephants in Europe (October 2002) Clubb R and Mason G. Animal Behaviour Research Group, University of Oxford, Department of Zoology, South Parks Road, Oxford OX1 3PS, UK. 280 pp. A4 paperback. The Report, which was commissioned by the RSPCA, can be viewed at the RSPCA website: <http://www.rspca.org.uk>.

DEFRA (2000) *Secretary of State's Standards of Modern Zoo Practice*. Available at <http://www.defra.gov.uk/wildlife-countryside/gwd/zooprac/index.htm>

Management of Ethiopian donkeys

The aim of the work described in this report was to characterise the use and management of donkeys for transport. Welfare of the working donkey is a cause for concern in many areas of the world, and the specific objective here was to identify ways in which the welfare of donkeys used for transport in peri-urban areas of Ethiopia might be improved.

The health status and management practices associated with working donkeys were monitored by carrying out informal interviews with owners. The results confirm that most donkey owners recognise the financial and timesaving benefits of owning a donkey; however, despite placing considerable value on their donkeys as an economic resource, people were reluctant to spend

money on improving their health and management. More than half of the owners reported health problems, with most attributing these to disease, overwork, sores and feed shortages. It was encouraging to note that owners would probably be receptive to low-cost harness and saddle improvements that reduce the incidence of sores and thus reduce the number of lost working days for their donkeys.

Plans for future work include an investigation into longitudinal monitoring of seasonal changes and an assessment of the potential for interventions. The study will address socio-economic issues and determine acceptable pathways for ensuring that the correct recommendations are accepted by those who need them. This report will be of interest to those who work with draught animals and in the field of donkey welfare as well as those with an interest in attitudes towards animals.

Use and Management of Donkeys in Peri-Urban Areas of Ethiopia (2001) Centre for Tropical Veterinary Medicine, Draught Animal Power Technical Report 5 2001. Compiled by Pearson R A, Alemayehu M, Tesfaye A, Allan E F, Smith D G and Asfaw M. Livestock Production Programme Project R7350, University of Edinburgh, Easter Bush, Roslin, Midlothian EH25 9RG, UK. 128 pp. A4 paperback (ISBN 0 907146 13 9).

Development of European legislation on the use of animals in science

The Council of Europe is in the process of modifying Appendix A to the Convention ETS 123 which provides recommendations on the care and husbandry of laboratory animals. The revision takes account of the importance of appropriate social contact and enrichment instead of concentrating only on minimum space allowances. The Working Party charged with carrying out the revision has produced new recommendations for some species groups such as rodents, rabbits, cats and dogs; however, further work is required for other species. Unfortunately, all of the work remains in draft stage until it is approved by a Multilateral Consultation, but there is some hope that this could occur in 2003.

Although the Council of Europe Convention can only provide recommendations, the revision will be valuable as it has the potential to influence standards in over 41 member nations. Moreover, the revision has important implications for members of the European Community because the European Commission has recently ratified the Convention and will therefore have to revise the European Directive 86/609/EEC to bring it into line with the Convention. When this occurs, members of the European Union will be required to update their national legislation to incorporate any revisions to the Directive. A Draft Report on the Directive is available on the website (see below), and this suggests that a revision to the Directive might include substantial changes to its Articles and scope as well as to the recommendations on housing and care. For example, it is suggested that the Directive, like the Council of Europe Convention 123, should, in addition to controlling and setting standards for the use of animals in research, cover the use of animals for education and training purposes. It is also recommended that the definition of animals be widened to include embryonic and foetal forms as well as cephalopods and decapods.

Council of Europe modifications to Appendix A, Convention ETS 123; draft report available at <http://www.europarl.eu.int/meetdocs/committees/envi/20021002/envi20021002.htm>

Management guidelines for the welfare of zoo elephants

A recent report from the Federation of Zoological Gardens of Great Britain and Ireland on the management of zoo elephants aims to set out the current best practice and principles for those zoo keepers and managers who are responsible for their humane care of these animals and also