

Porter and Brown also make numerous references to the wild polecat, the ferret's closest relative; this is particularly useful because knowledge of the natural behaviour of a wild species can be a great help in understanding the behaviour of its domesticated counterpart.

Considerable space in both books is devoted to the merit of ferrets as pets and for working, their personality traits and how to select them. The important question of good handling is discussed, also housing, diet and health including descriptions and suggested treatments for common diseases and injuries. Breeding and general principles of simple Mendelian genetics are described, although little is known about ferret genetics, apart from the fact that albinism is recessive! Both books devote considerable space to working ferrets, for example using them to hunt rabbits or rats. This approach may not appeal to those opposed to blood sports but it has to be accepted that the ferret is an efficient killing machine, breaking the neck of small prey by shaking, and suffocating larger prey by gripping the throat. This is in contrast to dogs and wolves which have no killing bite and literally tear the guts out of larger prey or simply dismember it alive! Ferrets are, in general, a more humane and natural killing method for rats or rabbits than shooting or poisoning. Both books provide a summary of facts and figures about ferrets, such as longevity, reproductive and breeding data; interestingly, they are not identical in the two books, probably because many are estimates. McKay discusses showing ferrets and very sensibly warns of the possible dangers of selective breeding for extreme characteristics irrespective of the health and general temperament of the animal, as is the case for some breeds of dog. Both books include a glossary of terms, bibliographies and useful addresses. Porter and Brown also have nutrition tables and a more extensive index than McKay.

Although the formats are so similar, the authors' individual approaches are different and both books are valuable for anyone wishing to keep or learn more about ferrets. A ferret enthusiast might be inclined to buy both books to obtain slightly different personal approaches, however, if forced to make a choice, I would favour the book by Porter and Brown because it is more readable, the layout and typeface are more attractive and the illustrations of better quality.

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Animals in Peril: How 'Sustainable Use' is Wiping Out the World's Wildlife

John A Hoyt (1994). Avery Publishing Group: New York. 257pp. Paperback. Obtainable from the Humane Society of the United States, 2100 L Street NW, Washington DC, 20037, USA (ISBN 0 89529 648 9). Price including airmail one copy US\$17.25, two copies US\$22.25.

This book, as the title tells you before you read between the covers, is basically against the concept of the sustainable use of wildlife. The conflicts between conservation and animal welfare are touched upon. More specifically, it is an argument against consumptive sustainable use, with the central focus on the international trade in wildlife. To the uninitiated in this ongoing and particularly polarized debate, the jargon 'consumptive' tends to mean killing (harvesting) animals, usually but not exclusively, for profit. To qualify for the trendy label of 'sustainable use' the general idea is that at least some of the benefits go

to the local community as an incentive to protect the animals as a means of conserving the species in question for future generations.

In practice, however, sustainable use is a term much used and abused, probably because it is rarely defined or quantified, proven or justified and certainly because it involves animal exploitation and human profit. Generally, those for sustainable use are not very forthcoming in elaborating how they cater for animal welfare and those against often, publicly at least, are uncompromising in their stance against any exploitation. This book is no exception and of the latter variety.

There are three main sections: Part I The Myth of Sustainable Use (pp 7–81), Part II The Fight to Save the Elephants (pp 85–177) and Part III How to Save the World's Wildlife – Humane Sustainable Development (pp 181–228). I gather that this book was put together as an attempt to try to influence the outcome of the November 1994 CITES (Convention on International Trade in Endangered Species of Fauna and Flora) meeting ruling on trade in elephants and rhinos, therefore it is not surprising that it concentrates on these species, as well as covering whales and parrots. Also it is slightly more applicable to the American situation as most of the detail relates to US legislation, policy, non-governmental organizations and so on. The book does not have supporting figures, tables or diagrams – only a few black and white photographs of charismatic wildlife separating the sections. It has a 'Notes' section which contains the references used to support the arguments, although apart from a few published papers and reports, these are mainly magazine and newspaper articles and personal communications (numbered and renumbered throughout the text).

In the foreword to the book it is stated that sustainable use is '... invariably portrayed as a sort of conservation panacea...'. In the Introduction to Part I, again describing sustainable use '... according to this concept, in order for wildlife to survive, it must "pay its own way" by being "utilized"...' and so on throughout the book. These are 'misuses' of the term which only serve to perpetuate the confusion; it is clear from much of the scientific literature that sustainable use is actually only seen as 'one tool of many' (Robinson 1993), by no means a panacea, and it is widely acknowledged that not all wildlife could possibly have an economic value, nor should have. My main concerns are with animal welfare, but I find this misrepresentation annoying and it only detracts from other pressing issues which require consideration, *in particular* animal welfare, as there are innumerable animals currently suffering as the debates rage.

Part I, The Myth of Sustainable Use, attempts to convince the reader why sustainable use can never work although by page 38, halfway through this section, the author has already stated that 'It is thus clear that sustainable use is a dead-end street.' This section relies heavily on a few published references (Robinson 1993; Ludwig *et al* 1993; Geist 1994), and it either reworks or restates their content, although selectively. Sections of Robinson's paper are directly quoted although notably the sentence '... sustainable use is very appropriate in certain circumstances' is omitted from the quote and replaced with '...'. This is not to say that the section does not cite many examples and situations where the exploitation of a biological resource has been abused or where sustainable use claims have been made unjustifiably, because without doubt it certainly does. But many of the examples are of unmanaged systems where sustainable use and/or conservation have never been the main aims.

Part II is devoted to the subject of the exploitation and decline of the African elephant, the ivory trade and recounting how the ivory ban eventually came about. It also details the involvement of some of the numerous non-governmental organizations. Then the last 30 pages of the book (Part III) explain, from the author's point of view, how 'true' humane sustainable development is possible, but through non-consumptive ecotourism. There is no doubt that ecotourism is an excellent way of developing non-consumptive uses of wildlife but it still requires management, operating with precautions and restraint and consideration of animal welfare, as of course do all other uses. Even ecotourism has its dark side. The term is used inappropriately as a marketing tool, it only actually constitutes about 5 per cent of the market (Goodwin 1995) and as Goodwin states: 'It is difficult to envisage ecotourism, thus defined, as the saviour of the environment. The carrying capacity of existing and potential reserves could not survive any large scale expansion of activity.' There are also the welfare problems of disturbance, feeding and even, in some cases, disease transmission, to be taken into account.

Whilst I did not like the style of the book, found a lot of it distracting, contradictory, repetitive and seemingly exaggerated, it does bring together many important points. It reinforces that using the 'sustainable' label should not be a way of lifting bans on bad practises and watering down protective wildlife legislation so that wildlife can be decimated commercially. It also highlights how legislation designed to protect species largely fail due to inadequate enforcement. Wildlife should not be used solely to maximize its commercial value – the book emphasizes that wildlife has a value completely separate to its economic cost. Most importantly it draws attention to the fact that the concept of sustainable use is being abused throughout the world. It is this last point which urgently needs addressing: current uses need to be questioned, those that are damaging need halting and if uses are to continue, they need justifying and continuously monitoring.

But the author dismisses that sustainable use, where animals may be killed, can ever work and is almost too quick to blame others, especially those holding different views. Is the overfishing problem the fault of the fisheries biologists? the fishermen? the governments that bend to their pressure? or the voracious end consumers? The issues at stake run a lot deeper than this book explores; it is not that sustainable uses should not be promoted, but that they should only be promoted in situations where they will improve conservation prospects, human and animal welfare and where not doing so will result in continued animal suffering and extinction. It is for this reason that conservationists (in all their differing guises) and welfarists need to formulate workable guidelines for sustainable use, to expose the uses that are nothing more than exploitative for quick profits and strengthen the policies that are currently being misrepresented. It is highly probable that few current uses will qualify for the sustainable term, but improvements can be made in uses that are exposed as failing.

Where I do strongly agree with the author is on the importance of humaneness to sustainable use programmes – most uses of animals ignore the interests of those used. There is a strong case for including animal welfare in sustainable use programmes but so far this seems to have been overlooked, ignored or rebutted.

The book is passionately written with very admirable intentions – to help convince people that mass international trade in wildlife cannot be of benefit in the long-term, that regulation is failing or not being implemented and that benign uses of wildlife are certainly preferable from most points of view (but as with most alternative systems they have their own

problems). Whilst agreeing with many of the general ideas and the potential of humane ecotourism, I was not convinced that it could be exclusive – some hunting and harvesting will inevitably continue and the ethics of killing will always be an issue of grave importance. There is an abundance of published material on the sustainable use of wildlife and anyone wanting a more balanced view of the subject needs to integrate the ideas contained in this literature, with the strong arguments put forward in John Hoyt's book.

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References

Geist V 1994 Wildlife conservation as wealth. *Nature* 368: 491-492

Goodwin H 1995 Tourism and the environment. *Biologist* 42: 129-133

Ludwig D, Hilborn R and Walters C 1993 Uncertainty, resource exploitation, and conservation: lessons from history. *Science* 260: 17 & 36

Robinson J G 1993 The limits to caring: sustainable living and the loss of biodiversity. *Conservation Biology* 7: 20-28

Health and Welfare of Captive Reptiles

Edited by Clifford Warwick, Fredric L Frye and James B Murphy (1995). Chapman & Hall: London. 299pp. Hardback. Obtainable from the publishers, 18 Anley Road, London W14 0BY, UK (ISBN 1 873580 16 9). Price £45.

This recently published book of some 300 pages is a most important step forward in the cataloguing of existing knowledge on the subject of the title. Indeed, some indication of the wealth of information it contains can be gauged by the fact that the index – beautifully presented and collated – extends to 16 pages.

Chapman & Hall are to be congratulated for producing a well set out book on excellent paper and with very readable print. It costs £45 which is reasonable, however, considering the enormity of subject material – much of which, it is believed, has been put together for the first time. The book has many excellent publishing and printing devices, and one of the most attractive is the way heavy case is used to highlight important words or phrases.

The triple editorship is shared between Worcester (UK), Davis (California) and Dallas Zoo (Texas). The evenness of the text, together with its admirable planning, gives great credit to the editors, who must have worked very hard indeed collating and organizing the work of the 20 authors – three of whom are themselves!

This volume is essential reading for all workers in the field of captive reptiles, whether they be in research, or a zoological environment. To review such a packed volume is difficult indeed, in order to give the correct credence to its excellence. Throughout the publication, each of the chapters carries with it a superb reference list sometimes running to nearly 200 names and papers.

There are 11 major chapters each of which is organized around several sub-chapters.

Chapter 1 Physiology and functional anatomy

Lillywhite and Gatten discuss body temperature, energetics and ectothermy, light and photoreception, water exchange and humidity, digestive physiology and nutrition, respiration