

To summarize, although I did not always agree with the authors, and felt that the depth of coverage provided by some of the chapters was somewhat patchy, this book is a valuable synthesis of a very broad field. As such it is a useful first point of reference for people who are involved in biomedical research with non-human primates and who need information on a point outside their field of expertise. I hope, however, that they would use the chapters as a starting point rather than as a definitive view.

**Reference**

Martin P and Bateson P 1993 *Measuring Behaviour: An Introductory Guide, 2nd edition*. Cambridge University Press: Cambridge, UK

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***Conservation of Endangered Species in Captivity: An Interdisciplinary Approach***

Edited by Edward F Gibbons Jr, Barbara S Durrant and Jack Demarest (1995). State University of New York Press: Albany. 810pp. Paperback. Obtainable from the publishers, State University Plaza, Albany, New York 12246, USA (ISBN 0 7914 1911 8). Price US\$34.95.

The idea for this book came out of a conference held at the American Museum of Natural History in 1985. Although more recent work is incorporated and chapters have been updated, it remains a fact that the book was ten years in the making and unfortunately this does show in the approach taken.

There are 28 chapters in the book divided into seven taxonomic segments ranging from invertebrates to higher mammals. The scientific disciplines incorporated within each taxonomic group are conservation, reproductive physiology, behaviour and habitat design in captivity. A potentially excellent approach. Captive breeding is a complex science and encompasses all these topics. I found the overviews of reproductive physiology given for each group very useful; in the past the lack of breeding in some species has been because of inadequate understanding of the physiology of the species or even incorrect identification of the sex of an individual.

The book specifically states that the conservation chapters review the status of the taxonomic groups and the need for, and the problems of conservation oriented programmes in captivity. For some reason, and it cannot just be the age of some of the work, there is no mention of the Conservation Assessment and Management Planning Process initiated by the Conservation Breeding Specialist Group some five years ago, or of the many publications resulting from this process. Similarly, although the North American SSPs (Species Survival Plan) are mentioned, other regions' programmes are not nor is the concept of Regional Collection Planning discussed. Thus some of the current exciting work in collection planning and in the choosing of criteria, in order to prioritize captive space for the species in most need of captive programmes, has been overlooked. As many of the authors touch on the subject of species selection it is unfortunate that the most recent information on the subject is not included. The book would have been improved with some information on global and regional programmes provided in the introduction. Although reintroduction is mentioned in several sections there is little information on the difficulties of this developing topic.

There are good summaries of the captive conditions required for each group of animals. These also include reference to enrichment work, ie the innovative methods currently being used to increase the activity of captive animals and to design activities that replace the time that would be spent foraging in the wild. The chapters also mention the importance of keeping animals in similar social groupings as that found in nature to encourage a normal behavioural repertoire. The chapter on behavioural considerations in the captive management of birds is remarkably comprehensive. Interesting facts are pointed out like the fact that sandpipers need vertical space to carry out their behavioural aerial displays during the breeding season. There is also an interesting section on the use of artificial parents in hand-rearing.

There is much information on the welfare of animals in captivity; this is covered mainly in the sections on enclosure design, diet, animal health, enrichment work and captive environment. However, there was less discussion on welfare in the section on marine mammals. This section would have benefited from a more detailed discussion of captive environments for marine mammals and welfare as this is a particularly controversial issue at present. Similarly the section on elephants, while commenting that not many have been born in captivity, does not address the current controversy of the keeping of elephants in captivity and the provision of suitable environments.

No one volume can comprehensively cover such a vast subject, and the book does provide a useful reference volume for the areas it covers. Certainly it will be a useful addition to the library of anyone working in the field of keeping species in captivity.

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***Proceedings of Animals in Science Conference: Perspectives on Their Use, Care and Welfare***

Edited by N E Johnston (1995). Monash University: Clayton. 262pp. Paperback. Obtainable from the Research Ethics Unit, Monash University, Clayton, Victoria 3168, Australia (ISBN 0 7326 0636 5). Price AUS\$30.

This book presents the proceedings of a conference held at Monash University, Victoria, Australia in 1995. The conference set out to address perspectives on the use, care and welfare of animals in science. The editor of the Proceedings, Dr Noel Johnston, says in his introduction that one of the goals of the Organising Committee was that people would leave the conference with new procedures to try and new thoughts to think. The conference was undoubtedly innovative, and one that anyone interested in laboratory animal issues would wish to have attended.

The meeting was international with participants from Australia, the United Kingdom, mainland Europe, Scandinavia, the USA, Canada and New Zealand. The speakers represented a wide range of backgrounds and opinions within the laboratory animals field. They included members of animal ethics committees, researchers, animal technicians, members of animal welfare organizations, veterinarians, teachers, students and interested members of the public.