# Book Reviews

**Primate Utilization and Conservation,** edited by **Gordon Bermant** and **Donald G. Lindburg.** John Wiley, £8.90.

This is a book of fascinating and frightening statistics – a collection of fifteen papers resulting from a conference in Seattle in 1972. Although inevitably outdated on some issues, it is the best single reference work covering the scale of primate utilisation in relation to wild resources, the threat to future medical research caused by dwindling wild populations, and current attitudes towards primate conservation.

The extent of primate use is horrifying. Between 1966 and 1971 the USA imported between 50,000 and 85,000 primates per year for research; the figures for UK are about 9000. Can these enormous numbers really be necessary? Most of the authors agree they are not. Primates are used wastefully and requirements could be cut drastically.

Natural, artificial and political factors render wild supplies of primates unreliable; some may dry up completely. For this reason, and also to relieve wild populations, the authors strongly advocate further promotion of artificial breeding programmes to meet medical research needs. We cannot predict what species will prove useful to medical research in the future; we must protect all species irrespective of their current uses. Here, fortunately, the goals of the primate user and the conservationist are identical.

The attitudes and conclusions reached at this conference have been of great importance in forming the views applied by the IUCN Primate Specialist Group to current conservation programmes, and also the Guidelines for the use of Primates in Medical Research which have been drawn up by IUCN and submitted for adoption to the World Health Organisation.

JOHN MACKINNON

**Wild Cats of the World,** by **C. A. W. Guggisberg.** David & Charles, £5.50.

**The Wild Canids:** their systematics, behavioural ecology and evolution, edited by **M. W. Fox.** Van Nostrand Reinhold, £10.20.

**Hyaenas,** by **Hans Kruuk.** Oxford University Press, £5.00.

It is perhaps not surprising that, second only to the primates, the larger carnivores are popular subjects for behavioural studies. The social behaviour of dogs, hyaenas and lions allows many parallels to be drawn in speculating about the evolution of human behaviour during our own predatory past. At the same time our long-standing role as potential prey of the large carnivores has produced a rich but heavily biased store of fact, belief and myth as a starting point for more organised study. Each of these three books provides a great deal of authoritative information on one family of carnivores but in very different ways.

Dr Guggisberg's volume on cats is a comprehensive account dealing in turn with all 35 members of the family, with the emphasis on behaviour and ecology. The accounts of the East African species, large and small, benefit from the author's long residence in Kenya and his close involvement with carnivores, but his compilations on other species are clearly the result of an original sampling of the primary literature from which he has extracted many items of interest missed by other recent compilers. But of many species and especially the forest cats, we are still abysmally ignorant. This applies to many South American cats, such as the margay, and the situation is little better in tropical Asia even for so large an animal as the clouded leopard. This is a valuable and very readable source without technicalities on a

group of very vulnerable animals. It is a pity that the illustrations – 28 species in monochrome photographs – are substantially less comprehensive than the text.

*The Wild Canids* is an assemblage of 30 papers by as many authors, with the emphasis on behaviour and ecology, the great majority reporting original research. The literature on the wolf is voluminous and recently studies of the African hunting dog have received much publicity, but for the conservationist the most valuable part will be the accounts of the ecology of many additional species of wild canids. The Indian wild dog is dealt with by E. R. C. Davidar on the basis of long experience of amateur study; most of the other accounts are by professional zoologists. In most reference works the dogs of South America (amounting to nine species) get as little space as the cats; it is therefore particularly pleasing to find a paper on the ecology of two species, the pampas fox and the culpaeo, both of which appear to be surviving well despite heavy persecution, along with a review paper on the whole continent. The arctic fox, the red fox, the grey fox (of North America), the coyote, the enigmatic red wolf, the dingo and that animal much neglected by zoologists, the stray urban dog, receive detailed treatment. Some of the missing species, alas, are the most endangered ones for which information is desperately lacking. The Simien jackal receives only six lines, and some of the foxes are not mentioned beyond an introductory listing. A multi-authored book such as this is almost inevitably somewhat of a hotch-potch but the literature is so voluminous and scattered that it is valuable to have this amount of information in one place.

*Hyaenas* comprises, in the words of the author, the 'naturalist's titbits' that had to be left out of his recent detailed account of the spotted hyaena in Tanzania (reviewed in *Oryx*, XII, 1, page 120). With an abundance of well chosen photographs and a remarkable economy of words he succeeds admirably in giving a vivid insight into the ways of hyaenas. It is a masterpiece of skilful presentation.

GORDON B. CORBET

**Animal Architecture,** by **Karl von Frisch.** Translated by Lisbeth Gombrich. Hutchinson, £6.75.

The word 'architecture' is used in its widest sense to include bodily structures as well as the building of external objects such as nests and shelters, traps for capturing prey and bowers for courtship. To understand all these architectural activities a knowledge of the lives of the builders is essential, and Professor von Frisch brings to his task the fruits of a life's work as one of the greatest pioneers in the study of animal behaviour.

Starting with the exquisitely beautiful limestone shells of single-celled Foraminifera and the equally lovely siliceous skeletons of Radiolaria, which both fulfil the vital functions of support and protection for their owners, he surveys in turn the building activities of all the main groups of animals, unfolding fascinating examples of instinct, inventiveness and functional design. As might be expected from the author of *The Dancing Bees*, there are particularly absorbing accounts of the social insects, illuminated by his own researches.

Among the higher animals examples of activities occur frequently that are difficult to accept as purely instinctive, and most readers will surely agree with the author when he sees 'significant traces of the beginning of thought processes and aesthetic feeling' in the courtship behaviour of the Australian bower birds and the construction of their decorated courtship bower.

The illustrations throughout, both in colour and monochrome, are outstanding and apposite. The text can best be described in the author's own words in his Foreword: 'I have tried to be generally intelligible, for the book is chiefly intended for the nonspecialised audience. If the public at large knew more about the workings of nature it would help to protect our living environment against the progressive destruction that threatens it'.

JOHN CLEGG