



PINE MARTEN, one of Britain's rarest mammals now found only in the west Highlands, the Lake District and Wales. This is one of Robert Gillmor's drawings in *Predatory Mammals of Britain*, a Code of Practice for their Management, a revised edition of which is published by the Council for Nature. The text is the responsibility of a working party representing conservationists (including FPS), farming and sporting organisations. A new companion booklet, *Predatory Birds in Britain* will be reviewed in the next *Oryx*. Both booklets are obtainable from the FPS, 40p each post paid.

naturalists and zoologists. They are scrupulous in acknowledging sources of information, but the use of footnotes, although convenient when reading a book, is less useful than a bibliography when checking a reference subsequently.

HARRY V. THOMPSON

**Mountain Sheep: A study in Behaviour and Evolution**, by Valerius Geist. Chicago University Press, £6.55.

The paradox of the mountain sheep is well illustrated by the cover picture of a large horned ram standing on a sparsely vegetated ridge. Why does a highly successful group, living on the fringes of the great ice sheets, waste resources in growing these magnificently decorative horns? Dr Geist answers this question and many more, so amply and eloquently, that his book will be a model for many years. It is rare indeed that meticulous field observation, stimulating ideas of considerable generality and good writing are combined to give a book of high scientific value and readability that is also informative and exciting.

Based on the intensive study of three races of North American sheep—Stone's sheep in British Columbia, the bighorn in the Banff National Park, and Dall's sheep in the Yukon, it is far more than an excellent account of a series of field studies, for it sets the behaviour of these three races in an evolutionary and ecological framework. To do this Dr Geist is not afraid to discuss other ungulates and there is a valuable account of the contrasting strategy of the moose.

The observations and hypotheses are contained in well constructed chapters, with a comprehensive introduction giving the main points, followed by detailed observation and analysis. This helps the busy reader, but I doubt if many will omit the high-quality field observations in the main parts of the chapters. Dr Geist sets up explicit behavioural and evolutionary

models followed by the implications of the model and its verification or rejection. It is unlikely that the study evolved in this beautifully logical way (alas, so few do!) but it nevertheless helps understanding considerably.

The book is well produced with excellent clear type, diagrams and graphs, a comprehensive reference list and photographs of excellent quality. Dr Geist also invites the reader to obtain copies of his films to further supplement the text—a feast to look forward to indeed. The book must be read by anyone interested in the behaviour and evolution of wild ungulates, and should be read by all zoologists and naturalists who appreciate the wilderness and its animals.

C. MILNER

**The Scientific Management of Animal and Plant Communities for Conservation**, edited by E. Duffey and A. S. Watt. Blackwell, £8.50.

British Ecological Society Symposia seem to be on an exponential growth curve, for the 11th Symposium, on Management for Conservation at Norwich in 1970, contains no fewer than 41 papers, among which must be some to interest any ecologist. The symposium was much criticised as straying from its declared subject, but on reading this volume it seems to me that this criticism is unfair. It is true that many of the papers seem to insert a *final paragraph on the implications of the reported research for conservation* rather too consciously designed to fit in with the symposium title, but the basic research discussed here can in fact stand on its own as an essential background to the development of a scientific conservation policy. The first two sections on the structure of communities and the regulation of numbers bring out principles that any conservationist must become fully conversant with, if his attempts at management are to be anything more than groping in the dark.

The importance of on-site experience is not missed, however, for there is a final section on Management Policy and Practical Problems containing articles by Dr Max Hooper on the theory of nature reserves and Dr Eric Duffey on the management of Woodwalton Fen, among others, the last being a fine example of practical conservation. In between come sections on Conservation Problems in Freshwater, the Influence of Biotic Factors, and two sections, on Habitat Management in Africa and the Conservation of Large Mammals, that will be of especial interest to *Oryx* readers.

This volume may not be an exhaustive handbook on conservation but it contains essential information on both the scientific background and the practical problems of conservation and must be required reading for any conservationist who wishes to keep up with current research.

ALASTAIR FITTER

**The Temperature and Water Relations of Reptiles**, by J.L. Cloudsley-Thompson. Merrow, Watford, £2.50.

There was a time when animals were regarded as either cold-blooded (poikilothermic) or warm-blooded (homeothermic), and it is only since World War II that sufficient evidence has accumulated to make it generally clear that reptiles substantially blur this neat distinction. Other generalisations, too, have had to be modified. It is becoming widely realised that reptiles offer interesting and varied materials for research on temperature and water relations. As fresh species are investigated and new experiments conducted the variety of recognised styles of heat and water economy increases, as also the physiological and behavioural modes of