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

maintaining them. To the uninitiated the situation is bewildering. Cloudsley-Thompson has examined a considerable literature as well as conducting numerous significant investigations of his own. He reviews the variety of our knowledge as it stands at present and discusses the relevant physical principles.

Different reptiles can operate over much wider ranges of bodily temperatures than can mammals or birds; nonetheless they generally have fairly well defined preferred temperatures. We learn, for example, that some select the temperature of their surroundings, that some lizards can regulate heat gain and heat loss using the sun as the source of energy, that some large snakes can so reduce their exposed surface area by coiling that the generation of metabolic heat becomes significant. Some, particularly desert forms, operate a rigorous water-saving economy; freshwater forms are understandly lax in this respect.

The author has had the happy idea of supplementing the list of literature citations with a list of further references—this should be a considerable help to others considering entering the field. Fragments of a pattern begin to emerge but it is too early to hope for a new set of broad generalisations. Cloudsley-Thompson has taken a first and essential step in this direction and placed us in his debt in so doing.

GARTH UNDERWOOD

The Book of Reptiles, by **R.A. Lanworn.** Hamlyn, £1.95.

This is an attractive addition to the fast increasing library of modern reptile books. Almost everyone, it seems, wants to know about reptiles—except perhaps the academic zoological establishment, whose courses seldom do much to encourage the university student with herpetological interests.

Mr Lanworn was in charge of the Reptile House in the London Zoological Society's Gardens for many years, and some readers, the reviewer among them, will have received their first introduction to living reptiles from his capable hands; they will remember his kind and thoughtful advice on the manifold problems of keeping reptiles in captivity and his wide knowledge of these animals, which is here deployed to good effect.

He gives an excellent popular account of the main adaptations exhibited among the 6000 or so species of living reptiles, touches on the long-past Golden Age when dinosaurs were the dominant forms of terrestrial life, explains the sad fate of all too many reptiles kept as pets in this country, which languish and soon die because of their owners' lack of knowledge of their basic needs and habits. He also describes the ruthless exploitation which many types such as crocodilians and turtles have suffered at the hands of man in his search for attractive leathers and table delicacies, and the less obvious but perhaps even more serious danger from habitat destruction. A final chapter deals with the task of conservation, and mentions the role of such bodies as IUCN and the Charles Darwin Foundation which is doing so much to ensure the survival of the giant tortoises and unique iguanas of the Galapagos Islands.

This finely illustrated book is recommended very strongly to those who require a reliable and readable introduction to the reptiles, as they live in the rapidly changing man-dominated environment of the modern world.

A.d'A. BELLAIRS

Wildfowl in Captivity, by **Richard Mark Martin.** John Gifford, £1.75.

Written by a real enthusiast who knows his subject, the book fulfills a great need, for the amount of up-to-date practical duck-keeping literature is very