

There is a particularly interesting section on the modern research on sharks which is being carried out in laboratories in the United States. The fourth part will be of particular interest to the naturalist, for it gives an excellent account of the shark group as a whole, including the related rays and skates. Finally there is even a section on Selechian cookery.

H. GWYNNE VEVERS

Birds of Prey, by Philip Brown. Deutsch, 22s. 6d.

Less than two years ago a chemical firm sent me copies of a glossy magazine, the not very subtle purpose of which was to publish a review of a certain Miss Rachael Carson's book. The eminent reviewer was scathing. I mention this public relations stunt because the caption to a photograph of a golden eagle stated that it is "no longer a vanishing species". Indeed?

Philip Brown, writing in 1964, takes a less sanguine view. "So far as birds of prey are concerned, there is now no certainty at all that we shall be able to continue to enjoy them." And the blame for this state of affairs he is not afraid to apportion: "We can blame the Government and the vested interests who manufacture death, often indiscriminately, on a scale almost beyond the liveliest imagination, but in the event it all comes down to what the individual is prepared to tolerate". The Government's technical advisers and the vested interests escape the indictment lightly; Philip Brown addresses himself to the "individual".

This is a popular account of the "hawks" and owls of Britain, the first volume in a series called "Survival Books", with the dodo as its emblem. We need not expect the authors, writing under the symbol for the dearest of the dead, to pull their punches. Philip Brown hits out with accuracy and angry purpose. If these Survival Books follow this splendid beginning and come in time to influence events—and not merely to chronicle extinction—they are to be warmly welcomed.

G. DES FORGES

Predators and Anti-predator Behaviour of the Black-headed Gull, by Hans Kruuk. E. J. Brill, Leiden, 36 guilders.

Dr. Kruuk's study of the black-headed gull colony at Ravenglass in Cumberland, where so much valuable work on behaviour has been done by Dr. N. Tinbergen and his co-workers, sprang partly from the only too obvious and disturbing predation by foxes upon the gulls—in 1962 the local foxes killed 825 adults (230 in one night) and 1,100 young gulls—and was extended to examine all predators concerned (other gulls, crows, birds of prey, stoats, hedgehogs, the black-headed gull itself) and some other prey species. His approach was primarily that of an ethologist, and the wealth of observation and experiment, especially the inferences from the scrutiny of tracks in this sandy area is characteristic of the keen and patient naturalist. Some of the results, with their recurring tables and statistical tests, will be rather hard going for the ordinary naturalist but this is the way in which ethologists work nowadays.

The main conclusions, based on a careful accumulation of data and on probing experiments, suggest that the black-headed gull's reactions to predators range from simple escape through social mobbing to direct attack, and that the part of this range used against any specific predator depends upon a number of variable factors, important among which are whether the predation is directed towards young or adults and whether the predator is in the air or on the ground. Dr. Kruuk concludes that the Ravenglass colony,

which is in a nature reserve, is far more vulnerable than most because it is situated in sand dunes instead of the more usual marshy areas, and therefore needs management; since the study, foxes have had to accept some discouragement.

H. N. SOUTHERN

The Oxford Book of Birds, by Donald Watson and Bruce Campbell.
Oxford University Press, 35s.

Confined to British birds, there is no need to compare this with existing books, for it stands on its own feet very adequately, and will be used and enjoyed by many who already own and use other famous field-guides, and also attract many new bird addicts.

The excellent plates by Donald Watson, on pages large enough to give attractive pictures, each have at least four species, many of them in several plumages and some in flight where the flight pattern is a distinctive feature. The only important point where the book seems to fall short is in the captions to the pictures, which are often confusing and even misleading. Thus on plate 83 there is nothing to indicate that one of the birds shown in flight is a stone curlew; the caption appears to make it a little bustard.

In the text, which is a model of ingenious compression, Bruce Campbell has managed in the restricted space to give all the essential information on identification, field notes, distribution, breeding biology, migration and much more. An ingenious shorthand gives the months by number in which each species is to be seen in Britain, the breeding period and song months, and there are useful chapters on classification, anatomy, flight, behaviour and breeding. There are one or two mistakes or inaccuracies: the bill of the Caspian tern in winter is not normally black, and there is no mention of the most characteristic feature of the great white heron, its bright yellow bill, but generally speaking the text is meticulously accurate, and the whole book is remarkable value for the price.

H. G. ALEXANDER

Biology of Birds, by W. E. Lanyon. Nelson, 21s.

In view of the recent spate of semi-popular bird biology books, emanating chiefly from America, one might well ask whether another is really justified, especially when it has to follow such excellent volumes as Welty's *The Life of Birds* and the Darlings' *Bird*. The excuse is that Lanyon's book, published in America in 1963, has been adapted to British readership; the credit for this is given to Sir Gavin de Beer on the dust jacket, and to Mr. J. D. MacDonald in the author's preface. This is but the first of many inconsistencies in the book, most of which appear to have arisen from the substitution of Old World bird species for their New World equivalents without the necessary changes in the context.

For example, we are told that the marsh warbler breeds over the entire United States, but not in Europe or Asia; that all but one of the sixty-three species of warblers (by context Sylviidae) are confined to the New World; that willow warblers are double-brooded and polygamous, and so on.

Dr. Lanyon illustrates the need for scientific names by citing the confusion caused by the common name "redwing", which has different connotations in the Old and New Worlds; elsewhere in the book he uses the terms "warbler" and "blackbird" freely without making it clear in many cases whether he is using the American or the British terminology. I cannot recommend the British edition of this book.

P. R. EVANS