

from the authors, and this comprehensive work will immediately establish itself as the standard in a field where all too many previous books have only sampled the commoner birds of this vast area's rich avifauna. It will even be of substantial value to purely European ornithologists, for a surprising number of western Palaearctic birds extend or migrate southwards into India.

It is also good to have a revised second edition of Salim Ali's 16-year-old *Birds of Travancore and Cochin*. This has been enlarged and renamed *Birds of Kerala*, to match the political change that recreated the pre-British state of Kerala, by adding Malabar to, and subtracting Nagercoil from the area covered by the first edition. Much the same range of information is covered as in the larger book, but usually in different words.

RICHARD FITTER

Antarctic Bird Studies, edited by **Oliver L. Austin, Jr.** American Geophysical Union, 1968. \$16.50.

Symposium on Antarctic Oceanography. Scott Polar Research Institute, 45s.

With the opening up of Antarctica and the establishment of permanent research stations, biological studies have proliferated and the pioneer work of the heroic age has been followed by intensive professional research carried out by university-based scientists. Antarctic Bird Studies is a report on this modern phase of Antarctic research, and forms volume 12 of the American Geophysical Union's "Antarctic Research Series". Of its eight papers, five deal in detail with various aspects of the biology of the Adelie penguin. Of the remaining three, one (by W.L.N. Tickell) discusses the biology of the great albatrosses *Diomedea exulans* and *D. epomophora*, another (by M.E. Pryor) gives a full account of the avifauna of Haswell Island, and the third (by W.J.L. Sladen, R.C. Wood and E.P. Monaghan) describes the progress and results of the USARP Bird Banding Programme, with a general review of other bird-ringing projects in the Antarctic. This is a book for specialists, and a valuable one.

The same applies to the Symposium on Antarctic Oceanography, but more emphatically. This 268-page paper-covered volume contains in some cases full versions, in other cases abstracts (and a few listed by title only) of 59 papers presented at a symposium held at Santiago, Chile, in 1966. The aim of the symposium was "to identify the extent of present progress in oceanographical research in the Antarctic, and to endeavour to draw attention to those fields in which future work might most profitably be encouraged". Thus most of the papers presuppose a good deal of background knowledge, although the 'main review papers' provide some of this. Very much a publication for the specialist.

D.W. SNOW

Peregrine Falcon Populations—their Biology and Decline, edited by **Joseph J. Hickey.** University of Wisconsin Press, 95s.

The widespread decline of the peregrine in many countries of western Europe and its complete extinction in the eastern United States has caused some puzzlement as well as widespread concern. British scientists, led by D. A. Ratcliffe, argued that there was strong circumstantial evidence to implicate the persistent organochlorine pesticides; the manufacturers, and some biologists, were not convinced. So, in 1965, the University of Wisconsin organised a conference of international experts to review the

evidence and assess the various explanations advanced. The Proceedings, edited by the organiser, provide not only much about this fascinating species and other menaced predators but an enthralling account of the field and laboratory work which finally led to the solution of a most complex ecological problem.

The volume includes the contributions by the international experts, with summaries of the resulting discussions, under the following main heads—history and habits of the peregrine; recent changes in peregrine numbers; population trends in other raptorial birds; behaviour and general ecology; population factors, including pathogens, predation, shooting and egg-collecting; and population dynamics with reference to the trends established. The final discussion showed that most of the participants in 1965 felt that the link with pesticides had been established, though a few remained unhappy that the precise mechanisms had not then been demonstrated. Fortunately, Hickey was able to include in his final pages details of later research which has clinched the matter. Briefly it has been shown that organochlorines can affect the hormones which regulate the mobilisation of calcium, thus leading to thinner eggshells (shown to have occurred since 1946, when DDT was introduced, in the peregrine, golden eagle and sparrowhawk in Britain, and in the peregrine, osprey and bald eagle in the United States) and so to egg-breaking and eating. The ecological case against the organochlorine insecticides is, Hickey concludes, essentially complete. There remains, for all of us, the wider question of how much longer we can tolerate the use, uncontrolled over wide areas of the world, of pollutants which can have such complex and insidious effects on living things.

STANLEY CRAMP

Wild Animals of Burma, by U. Tun Yin. Myamma Export Import Corporation, 1 Suli Pagoda Road, Rangoon.

The author of this book is one of that great band of naturalist civil-servants who have done so much to build up our knowledge of the mammals of Burma, a country which stretches from the glaciers on the Tibetan frontier in the north to the humid Mergui Archipelago in the south, with all the different genera and species that that extent implies. In his preface he modestly disclaims his own achievements and says that his book "is not intended to be a scientific treatise but a compilation of the accumulated experience of others over a prolonged period". What he has done is to collect and collate records and observations of most of those who have worked on the mammals of Burma from the early part of the 19th century to the present day with two objects in view: firstly, to draw attention to the wildlife of his country and secondly, to prepare a compendious summary of old records so that they are readily available for the use of future students. He does not cover all the mammals, concentrating on the larger, more obvious and perhaps to the general reader more interesting primates, carnivores, ungulates, squirrels, etc., in fact those of which accounts are most likely to encourage both government and people in Burma to take active steps to preserve their country's wildlife. Bearing in mind therefore the fact that it deals only with the squirrels and porcupines amongst the Rodents, and that the Insectivores and Bats are excluded altogether, this is a useful bibliography which should do much to stimulate that interest in natural history which is the author's main objective in producing this book.

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