

Population Studies of Birds, by **David Lack**, FRS. Clarendon Press, 63s.

In the great debate on the causes of fluctuations in animal populations that has been in progress for the past 30 or 40 years, David Lack has assumed the mantle of defender of the Darwinian citadel. His chief antagonists have been the two Australian scientists Andrewartha and Birch, and V. C. Wynne-Edwards, Professor of Natural History at the University of Aberdeen, who in 1954 and 1962 respectively, put forward mutually antithetical alternatives to Lack's last (1954) broadside, *The Natural Regulation of Animal Numbers*. The present volume is Lack's rejoinder, based on the dozen or so long-term studies of bird populations which have become available since his last book.

It must be admitted that, granted his premises, he sweeps the board. Clearly, and Wynne-Edwards admits this too, food is the basic controlling factor in animal populations. The argument with Wynne-Edwards is: to what extent do animal populations normally reach the stage when food becomes a controlling factor? Here Wynne-Edwards puts himself beyond the Darwinian pale by hypothecating group-selection, a method of evolution not explicable within the Darwinian canon, and admittedly lacking any concrete evidence in its favour. (Lack also admits there is still precious little concrete evidence for his own views.) Andrewartha and Birch, on the other hand, working on insects, not birds, do not believe at all in the control of animal populations by density-dependent factors such as food supply.

The best comment on this great debate is Charles Elton's in *The Pattern of Animal Communities*, which I reviewed in the last issue of *ORYX* (p. 320): "The whole field of population control in nature and theories about how it works has got into a rather peculiar state where a number of strongly held views exist that are at first sight incompatible with one another . . . What is needed now in animal ecology is a sort of Ecumenical movement, or more precisely the development of a general comparative ecology of population limitation."

David Lack, I fear, is too much of a Pope to be a real Ecumenist, but the field is wide open to somebody—why not Charles Elton himself?—who knows that when a number of scientists hold strongly to apparently antithetical views, they are probably mostly right in the positive parts of their theories, but mostly wrong in refusing to concede some right to their opponents, and that the truth lies somewhere in between.

RICHARD FITTER

The Snowdonia National Park, by **W. M. Condry**. Collins, New Naturalist, 30s.

The name of "Bill" Condry is well known not only in Wales but far outside it, and ramblers and naturalists alike will turn with interest to his account of one of the most rugged and attractive of the National Parks in Britain. Having defined Snowdonia as stretching from Conway southward to Aberdovey, and from rather east of Bala to beyond Tremadoc in the west, he begins with a chapter on past visitors to the area—Giraldus, Leland, Lhuyd among the earlier ones and numerous successors in the eighteenth and early nineteenth centuries. Chapter 2, on "Rocks, Lands & Forests", is mainly geological, while succeeding chapters deal with the plants, birds, the rest of the fauna, and nature reserves and conservation.

This last chapter will be of particular interest to all who, like readers of *ORYX*, are concerned about the rapid shrinkage of Britain's wild places. There are now fifteen reserves in all within the Park—five of them mountain and eight woodland, with two on the coast, comprising as wide a variety of habitat and as diversified a fauna and flora as can be found anywhere within our island. A short account is given of the work of the Nature Conservancy not only in selecting and establishing these reserves but in research on their ecology, on the composition of their soils, and on the grasses and other plants that grow on them, and in the various activities of the wardens. The book is well illustrated with monochrome and also nine colour plates, and with maps and diagrams. Appendices include lists, with notes, of the upland plants, the birds and the butterflies, and the names and addresses in North Wales of bodies concerned with conservation.

COLIN MATHESON

Britain's Wildlife, Rarities and Introductions, by Richard Fitter and John Leigh-Pemberton. Nicholas Kaye, 21s.

The series of attractive wildlife pictures by John Leigh-Pemberton which have appeared in the Midland Bank advertisements during the last two years have now been brought together in a book, with explanatory text by Richard Fitter, a foreword by HRH the Duke of Edinburgh and a preface by Peter Scott. No fewer than 76 species are included in the 35 paintings—14 mammals, 51 birds, six fishes and five butterflies. Twenty-three of the paintings are of rarities and the remaining twelve of species which have been introduced to Britain, some of which, such as the rabbit, pheasant and little owl, have become familiar members of our fauna. The reproduction of the plates is excellent but it is somewhat confusing that the captions at the side of each picture are not printed opposite the species to which they refer in some plates such as that of the terns, necessitating reference to the text pages for clarification.

Richard Fitter's text provides a valuable up-to-date summary of the history and status of each species, brimful of information. His introduction is a lucid account of the factors which make for rarity or abundance in a species under present-day competition with man. This is a book that all who care for our wildlife and like beautiful things will wish to possess, and in buying it they are helping in a practical way to conserve Britain's wildlife, for royalties go to the British National Appeal of WWF.

JOHN CLEGG

The Way to the Mountains of the Moon, by Rennie Bere. Barker, 36s.

Mr Bere's way was to join the Colonial Service in 1930, get posted to Uganda, and keep within either sight or driving distance of the Ruwenzori until his retirement in 1960. Given half a chance, or some sick leave, he was up in the mountains, climbing them, getting lost, noting the natural history, and generally being extremely content with some of Africa's remarkable assortment of high peaks. The book is a miscellaneous potpourri of reminiscences and fact. It is a kind of biography about geography, for neither Mr Bere's personal life and feelings nor the requirements of his job are ever mentioned, except in passing from peak to peak. One chapter is called "Floundering in a mountain forest", and even the climbs are described in an off-hand manner, without much detail or time to build