

REVIEWS

The Birds of Ireland.—P. G. KENNEDY, ROBERT F. RUTTLEDGE, and C. F. SCROOPE, assisted by G. R. HUMPHREYS. Edinburgh, London: Oliver and Boyd. xiii + 437 pp., 11 pls. Price, 42 shillings.—The last "Birds of Ireland," by Ussher and Warren, was published in 1900 and although it contains a wealth of material which is still of great interest to ornithologists it is now out of date in many respects. This new book, by the foremost authorities, fills an important gap by presenting an up-to-date account of the status, distribution, and migrations of Irish birds. The authors have compiled these accounts in a painstaking and critical fashion, and they have taken much trouble to ensure the accuracy of their facts.

Many interesting changes in status are recorded in detail. For example, the Greater Black-backed and Herring gulls have increased greatly in recent years, while the Arctic Tern has decreased. The Whooper Swan is now much commoner than the Bewick's Swan. The Red-throated Diver and Red-necked Phalarope continue to breed in very small numbers, though the one colony of phalaropes is now dangerously small.

The distribution of all species, both on the mainland and on many of the islands of Ireland, is described. Fullest details are given for the birds which are unevenly distributed and in the case of most sea-birds all the important colonies are listed.

Present-day knowledge of migrations of birds to and from Ireland is summarized. Arrival and departure dates for migrants are listed. However, the movements of many species in this part of the British Isles are still imperfectly understood.

As is perhaps inevitable in works of this type, more space is devoted to the rarer species. When dealing with the common birds, however, the authors have added notes on such topics as clutch-size, food, nesting habits, and display. In many cases, these notes have apparently been written with an eye to filling minor gaps in the literature and most of them supplement the detailed accounts given in the "Hand-book of British Birds."

There is a very short introduction and a list of Irish names of birds. The 14 photographs are of birds or breeding haunts in Ireland. Among the most interesting are those of Barnacle Geese and the famous Pied Wagtail roost in O'Connell Street, Dublin. The absence of a map is an inconvenience for the reader who is unfamiliar with the counties and place names mentioned in the text.

This book will be of special value to students of bird distribution and will be indispensable to all serious bird-watchers who visit Ireland.—FRANK MCKINNEY.

Elements of Ecology.—George L. Clarke. New York. Wiley and Sons, 534 pp. 1954. \$7.50.—This new textbook follows a general trend among recent ecological works in attempting to unify plant and animal ecology. It is organized logically into three levels or approaches—individual factors of the environment, relations intra- and interspecifically, and ecosystem relations. Thus the student is carried from autecology through synecology to the ecosystem.

Following an introductory chapter which deals with the scope of ecology and basic definitions, a chapter is devoted to each of the following factors: medium, substratum, water, temperature, light, oxygen and carbon dioxide, and nutrients. Each of these subjects is rather thoroughly discussed, and, as one might expect, the majority of the examples have been selected from aquatic, especially marine, situations because of the background of the author. There is a chapter dealing with intraspecific relations (reproduction, growth curves, cycles, and space relationships), and one on interspecific relations (symbiosis, antagonism, antibiosis, and competition). Further

synecological aspects are embraced in two chapters, one on the community and the other on succession and fluctuation. The latter of these chapters is concerned with dispersal, kinds of succession, climax communities, community classification, and cyclic fluctuations. These two chapters might well have been combined. Finally, it is encouraging to find a chapter devoted to the dynamics of the ecosystem wherein the author stresses the unity of the environment-community, trophic levels, pyramids, ecosystem of the sea, and productivity.

Although the background of the author has resulted in a large number of examples from aquatic organisms, terrestrial populations and communities are not neglected. In my estimation Dr. Clarke has presented elementary, basic ecology in a logical and lucid fashion, and he has presented good illustrations. Perhaps a chapter or section on practical or applied aspects of ecology would have been useful to the beginning student.—DAVID W. JOHNSTON.

Bubo the Great Horned Owl.—John L. George and Jean George, Illustrated by Jean George. New York: E. P. Dutton and Co. 184 pp., 53 pls. 1954. \$3.00.—This children's book carries a pair of Great Horned Owls through two nesting seasons and is packed with information, not only about this species, but also about the nesting, habitat and ecological relations of the other birds and mammals to be found in a typical area in southern Michigan. It is based on a good deal of sound observations and good sources. The prose style is closer to Thornton Burgess than to Tinbergen's delightful "Kleew," but Burgess doesn't face his readers with such difficult bits of syntax as, "The dry beech leaves rattled around him so he did not hear the tufted titmouse titter as he flew toward him from the woodlot fence row."

'Bubo' will probably find a ready sale to maiden aunts looking for birthday presents, for it is generously illustrated with wash drawings by Jean George, who has a real feeling for her medium. The illustrations show a pleasant sense of design, a lively quality and sensitive variation of textures.

Whether the young recipients will be able subsequently to wade through the text is not so sure. Packed with disjointed factual information about all the avian and mammalian species to be found in Bubo's territory, the story shatters and flies in dozens of directions. It abounds with incidents and crises, many of them unrelated and unresolved. It is a hardy reader indeed who can focus any real interest on eight new protagonists in as many short paragraphs, especially when they bear such chatty names as *Eremophila*, *Dendrocopus*, *Sylvilagus* and *Melospiza*. The young readers of my acquaintance do not readily pronounce such titles, nor understand such terms (undefined) as *buteo*, *larvae*, *passerine*, *mustelid*, or *plumicorn*.

The more sophisticated young readers may reject on biological grounds such passages as, "A piece of shell pulled off on one of the sticks and the egg turned. She looked at the fragment and then at her egg. Her heart beat rapidly and her breath came fast, as she realized that the owlets were dead within the shells. [She] remained with them for another week. The hatching date came and went. No owlets emerged." Others may feel by simple logic that if Black Talon *realized* her babies were dead she would be a "dope" to remain on the nest.—ABBIE L. B. WILLIAMS.