

note—liquid, sibilant, etc. A letter at the left of each chart indicates the actual musical pitch at that point—A''' etc., while each eighth of an inch in vertical height represents a half-tone and each half inch horizontally a second in time.

Accompanying each description of a song there is a very brief description of the bird, bringing out clearly its chief color characteristics, and at the beginning of the book an ingenious "Key" which leads one to one or other of the 26 groups into which bird songs are divided, while further keys bring us down to the species.

Mr. Saunders does not consider musical notation at all, as he rightly claims that it is unsuited to bird song since birds make use of musical intervals not capable of indication in our system of music. He also omits any attempt at a scientific analysis of bird notes such as Mr. Brand has discussed recently (Auk, 1935, pp. 40-52) since the present work is intended wholly as a guide for the field student.

Mr. Saunders has, we think, produced the best book on bird song from the popular point of view that has yet been published. It is a difficult subject to present and the attempts at representation by words from human speech or by musical notation have been, with the exception of a few striking songs, almost total failures.

We commend this little book to all bird students.—W. S.

Herrick's 'The American Eagle.'—It was our pleasure, some years ago, to publish in these columns a series of most interesting articles on the life-history of the Bald Eagle by Prof. Herrick, based upon his painstaking studies of the bird at several eyries in northern Ohio. (cf. Auk for 1924, 1932 and 1933). Now we have all of the information there presented, with much additional matter, combined in book form,¹ with the same and other illustrations from photographs taken by the author from the special steel tower erected near the nest tree.

Prof. Herrick has given us one of the most thorough life-history studies yet published on any species of American bird and has presented it in a form that will attract the interest not only of the ornithologist but of anyone who likes to read of nature and of determination in carrying out a planned investigation in the face of many obstacles.

Beside the studies at the Eagle's nest the author has added accounts of the Eagle as an emblem in ancient and modern times as well as the history of its adoption as our national bird and of its use on our coins, an interesting chapter in the history of the United States, in which Benjamin Franklin, John Adams, Thomas Jefferson and Daniel Webster played a part.

Prof. Herrick has certainly earned the title of the "biographer of our national bird!"—W. S.

Wynne-Edwards on the Birds of the North Atlantic.—This valuable and extremely interesting report² is based primarily upon eight voyages between Montreal and the English Channel on R. M. S. *Ascania* from May to September, 1933. The systematic portion of the publication covers observations on 28 species with much discussion of their distribution and migration, many of them illustrated with pen sketches by the author and by maps.

While these accounts make up the bulk of the paper the introductory portion is perhaps even more interesting. Here the author contrasts the study of the birds of a land area and of a section of the ocean and emphasizes the impossibility of a reasonably prolonged residence in the latter, which is always regarded as a necessity in the

¹The American Eagle | A Study in Natural and Civil History | by Francis Hobart Herrick | Author of "Audubon the Naturalist" | D. Appleton-Century Company | Incorporated | New York, London | 1934 | Pp. i-xx + 1-267. Price, \$3.50.

²On the Habits and Distribution of Birds of the North Atlantic. By V. C. Wynne-Edwards. Proc. Boston Soc. Nat. Hist., Vol. 40, No. 4, pp. 233-346. pll. 3-5. January, 1935.

former. His method of making a series of trips over essentially the same route is explained and the almost constant observations and counting of the birds seen, which could later be correlated with the ship's position at the time of observation. The average number of individuals of each species for different parts of the ocean was then calculated.

Incidentally the conditions of life in pelagic birds are discussed and the fact pointed out that truly pelagic species must drink salt water and will not drink fresh and that other groups of sea birds may drink salt water to some extent. Food seems to have a great deal to do with their distribution which is often clearly marked where no observable causes for limitations are evident.

The author divides his oceanic birds into three groups: (1) Inshore—Cormorants, Scoters, Eiders, most of the smaller species of *Larus* and, at certain seasons, Terns. (2) Offshore—Gannet, all Auks (except the Dovekie), *Larus fuscus* and *L. argentatus*. (3) Kittiwake, almost all Petrels and Shearwaters and at certain seasons, Phalaropes and Jaegers. The Dovekie is also provisionally placed here.

Mr. Wynne-Edwards's work is apparently the first attempt to treat comprehensively of the birds of any ocean area, even so well known an area as the North Atlantic. His paper should be read by every ornithologist interested in sea birds or in problems of distribution; it is an outstanding faunal work.—W. S.

Wetmore and Brooks on American Owls.—The tenth of the 'National Geographic' series of portraits of North American birds by Allan Brooks, appears in the February, 1935, issue of the magazine with excellent text by Alexander Wetmore, covering the general habits and history of Owls and biographies of the several species. The plates reproduced from Major Brooks' paintings are very pleasing and fully up to his usual high standard. Several half-tones from photographs add to the interest of the article.

We have already protested against the captions to the plates obviously composed by someone on the editorial staff and following the style of newspaper illustrations. It would be far better to make the names of the birds the prominent feature of the caption instead of burying them in the midst of several lines of description. What this sort of thing may lead to is seen in a recent advertisement of the 'National Geographic' in which a colored plate of the Belted Kingfisher is shown as a sample of the illustrations; the caption reading "A Belted Kingfisher of the *Flycatcher Family*" (italics ours). Most readers will know, what the editor responsible for this caption did *not* know, that it is the Kingbird not the Kingfisher that is a member of the Flycatcher family, but if these pictures are to be, as stated "of permanent reference value" it would be well to put the preparation of the captions as well as the text in the hands of an ornithologist!—W. S.

Greenway on New Guinea Birds.—Mr. Herbert Stevens was engaged in collecting for the Museum of Comparative Zoology during the years 1932 and 1933 in the coastal range of northeastern New Guinea, between the Markham and Waria Rivers. Mr. James C. Greenway, Jr., who has already described some new forms of birds from the material sent home, now presents¹ the results of his study of the entire collection, consisting of some 1300 specimens representing 207 forms.

There is a preliminary discussion of literature and of the range of species; then a narrative by Mr. Stevens; and finally the annotated list which occupies the bulk of the paper. Three new forms are here described, *Rallus striatus insulsus* (p. 28),

¹ Birds from the Coastal Range between the Markham and Waria Rivers, northeastern New Guinea. By James C. Greenway, Jr., Proc. New England Zool. Club, Vol. XIV, pp. 15-106. February 1, 1935.