

ORNITHOLOGICAL LITERATURE¹

HAWKS IN THE HAND. By Frank and John Craighead. Houghton Mifflin Company, Boston, 1939: 6 x 9 in., xiii + 290 pp., 57 plates, \$3.50.

It would be unfair to review this book without a prefatory statement regarding its authors, for what might be thought a weakness or two in an ordinary volume become not only understandable, but distinct assets, when their background is known. Briefly then, Frank and John Craighead are twin brothers who are only now of an age to be first-year graduate students at the University of Michigan, but who became interested in falconry and the photographic study of birds of prey so early in life that they have already had an extraordinary range of experience in their field. They have here set down the story from their first boyhood adventures with the Barred Owl and Red-shouldered Hawk on the Potomac River near Washington, through undergraduate days at Pennsylvania State College, to recent vacation trips in western Ontario, Nebraska, and Wyoming. Their approach is entirely direct and straightforward, their literary style extremely simple, the general tone of the book completely and enthusiastically boyish. Since these qualities are exactly what the circumstances call for, they are good.

Although the Craigheads' initial interest seems to have been falconry, they are most widely known for their photographs, and this fact is emphasized by the prominent position given the illustrations in the make-up of the book. Plates without borders are no longer unusual in bird literature, nor is the grouping of all the plates at the back of a volume, but here the publishers have carried innovation one step farther and grouped the borderless illustrations all at the front, so that we have not one but fifty-seven frontispieces. The Craighead photographs are of course excellent, as many critics have long since discovered from seeing them on exhibition, and their reproduction in this particular case is satisfactory if not outstanding. One leaves this subject with the feeling that their unusual position is on the whole a successful publishing device for underlining their importance.

An assay of "Hawks in the Hand" as an addition to scientific knowledge leads to the curious conclusion that its contribution is slight in the obvious field, but may be considerable in a less expected direction. The text is full of information on the habits and life-history of hawks and owls in a state of nature, but these data in no case seem to go beyond what was already known to moderately experienced investigators. The corresponding information on the habits and personalities of the Craigheads' pet birds, however, is unduplicated in American bird literature so far as known to the reviewer, and derives unexpected value not only from its straight-forward accuracy but from the sympathetic understanding with which it is handled. The chapter on Sparrow Hawks, for instance, is well-filled with new and fascinating information which is presented in so beguiling a fashion that the reader's emotions are considerably involved within a very few pages. Bits like this might not be nearly so good had they been written with less of boyish freshness.

Having preserved thus far the objectivity of a proper reviewer, I cannot now resist the impulse to mention one more fine quality of the book from the frankly personal viewpoint of a man who has paralleled a good deal of the Craigheads' experience, notably with Duck Hawks, at twice their age. I am interested at their reaction to the individual personalities of their different pets, at the steps revealed both in and between the lines by which they apparently progressed to an appreciation of the Duck Hawk as the grandest bird of them all; but particularly, I am delighted at the authenticity of all their Duck Hawk material. They do not mention an incident, describe a scene, or feel an emotion in this whole connection which is not depicted with such faithful accuracy that I have seen or felt the identical things.

¹ For additional reviews see pages 29 and 31.

Summing up then, "Hawks in the Hand" is a tip-top boys' hobby-book—so good in fact, that its teaching may be expected to fall here and there on fertile ground, to the end that other parents will presently spend anxious hours as their sons swing on cliffs and survey the country from eagles' nests, and other college landladies will rise in rebellion against the untidy indoor habits of Long-eared Owls.—Joseph A. Hagar.

BIO-ECOLOGY. By Frederic E. Clements and Victor E. Shelford. John Wiley & Sons, N.Y., 1939: 6 x 9 in., vi + 425 pp. \$4.50.

This treatise synthesizes the fields of plant and animal ecology as it applies to natural groupings of plants and animals in nature and the relations of organisms to each other and to their environment. As such, the general viewpoint, methods of approach, and factual information are of fundamental importance to all "out-door" zoologists and botanists. Those ornithologists should be particularly interested who are seeking some other basic philosophy than that of the life-zone concept for interpreting the occurrence and distribution of animals; who wish to understand the dynamics of animal populations with respect to competition, territory, migration, feeding, cycles, and interrelations of other sorts; who have observed how habitats and populations change with time but have not fully understood the part played by organisms in producing these changes; and who suspect there is order and unity in the organic out-of-doors but hitherto have caught only fleeting glimpses of possible laws and forces involved. A synthesis of this sort is essential for an understanding of evolutionary processes, although application of these ecological principles to evolution is not a part of this discussion nor the ultimate goal. The ecological system contrasts with and does not supplant the zoogeographical one designed to explain the evolution and dispersal of species.

The basic philosophy of this book is that there are no habitats in which both plants and animals are able to exist in which both do not occur and influence each other. Unit groupings of organisms are communities in which some organisms play a dominant role and other organisms, such as birds, exert influences to a lesser degree. On land, plants are usually dominant, in water, animals. Dominance is shown where organisms receive the full impact of the environment and then modify conditions in such a way that other characteristic organisms usually occur with them and there is some interdependence. The community so reacts upon the habitat as to change it and make possible the invasion of other and different communities, this succession continuing until a final stage or climax is reached, which is relatively permanent. The species composition of the earlier stages must be in large part adjusted to the peculiar conditions of extreme physical habitats and shows some similarity in different climatic regions, but the nature of the climax is determined principally by the climate itself.

In characterizing either seral or climax communities, life-form of plants and life-habitats of animals are of major importance, as plants show adjustment to the environment best by changes in structure, while animals first show it in functions and behavior. The species concept is used, especially in describing communities of subordinate rank, as taxonomic units often agree with the ecological ones and constitute the only practical means for designating particular groups. Since climate is one of the chief environmental complexes to which communities must become adjusted, differences in climax in different geographic regions assume major importance as the basis for a study of geographic distribution. Hence there are the major units, or biomes, of desert, coniferous forest, tundra, deciduous forest, and grassland, not to mention others recognized in water. Each biome in turn may be subdivided into smaller units, associations, and these again into still smaller divisions, based principally on taxonomic composition. It is probably the biome that should receive chief consideration in analysis of bird distribution

upon a continental basis, but the smaller ecological units, both seral and climax, must enter into any analysis of local distribution.

To illustrate in concrete form the general principles and concepts discussed, the grassland biome is analyzed in detail. A map is given to show the limits of the biome and of its various associations. The usefulness of the book and the immediate availability of this whole ecological philosophy to bird students would have been increased if a map showing the location of the other biomes and their major divisions could have been included.

The book is intended for the advanced student and will require careful reading. There will be terms with which he may not be familiar but which are necessary for labeling the concepts. These terms have been held to a minimum and are usually well defined the first time they are used. Probably the student will not everywhere agree. The reviewer believes that the term migration is used in too broad a sense and should be limited to more or less extensive movements from which there is regularly a return, and that other terms, as dispersal or displacement, should be used in referring to one-way movements of various sorts. Then again, territory is not clearly distinguished from home range, the first being a defended area while the latter is not. In the chapter on migration, the discussion of physiological factors and stimuli seems over-expanded, and we miss an analysis of the role of migration in the dynamics of the community life itself.

Aside from the general philosophical treatment, the book is replete with thought-provoking ideas, such as the hypothesis that old age may be responsible for the descending slope of a population cycle. There is a bibliography of about 900 titles with an indication of where each reference is cited in the text. There is an extensive index, and for the more important concepts and terms the page where they are described is indicated in heavy type. We recommend the book for careful study.—S. Charles Kendeigh.

NATURAL HISTORY OF THE BIRDS OF EASTERN AND CENTRAL NORTH AMERICA. By Edward Howe Forbush. Revised and Abridged with the Addition of More than One Hundred Species by John Richard May. Houghton Mifflin and Co., Boston, 1939: 7½ x 11½ in., xxvi + 554 pp., 97 colored pls. \$4.95.

Ornithologists and bird lovers who desire Edward Howe Forbush's relatively expensive and now out of print three-volume "Birds of Massachusetts and Other New England States" may now have much of the text and the magnificent colored plates from paintings by Louis Agassiz Fuertes and Allan Brooks in this one handsome volume. There are complete indices to scientific and common names, an appendix listing "accidental" or "casual" species, and four new colored plates from paintings by Roger Tory Peterson.

Each species is treated individually as before but the detailed information once given under "Description", "Molts", "Field Marks", "Voice", "Breeding", "Range", etc. has either been omitted or radically condensed under four headings: "Identification", "Call" or "Song", "Breeding" and "Range". The delightfully written text under "Haunts and Habits" has been transferred intact, save for a few deletions or changes in wording. Material on species not formerly included is concisely and accurately presented. Dr. John B. May is to be commended for having performed so well this tremendous task of condensation, revision, and abridgment.

The Directors of the Massachusetts Audubon Society have been largely responsible for pressing the demands for the publication of this volume, thus giving to a larger public the literary skill and observations of Forbush and the plates by Fuertes and Brooks. But it is inconceivable that these individuals have been responsible for the sweeping title and utterly false grounds on which the book is advertised. Undoubtedly the publishers are alone to blame for having abandoned good sense for the possibility of larger sales.

"Natural History of the Birds of Eastern and Central North America" is advertised on the front flap of the jacket as containing "the life history and complete, accurate description of every bird to be found east of the Dakotas, Nebraska, and Kansas; it includes Florida to the south, eastern Canada to the north." Actually the life history of no bird in this book is complete. (The former volumes possessed information under "Breeding" that approached completeness.) There are no descriptions—only identification marks are given. The author does not describe nor even treat at all "every bird found east of" the states mentioned. The Eared Grebe, a common dweller of the prairie marshes of Minnesota and Iowa, is relegated to the accidental list. The implied scope of the book insofar as mid-western birds are concerned is not carried out. The Franklin's Gull, Yellow-headed Blackbird, Harris's and Clay-colored Sparrows are discussed ever so briefly in comparison to eastern birds and are not even illustrated. Presumably the publishers deem this book a likely competitor with all treatises on birds of eastern, central, and southern United States but it will be unfortunate if this book cuts into the sales of their excellent and truthfully advertised "Field Guide to the Birds" by Peterson.

The plates by Fuertes and Brooks compare favorably with those of the original work. The four plates by Peterson, however, have been carelessly engraved and do not do justice to this fine artist.—O. S. Pettingill, Jr.

STUDIES OF WATERFOWL IN BRITISH COLUMBIA, NO. 9. BARROW'S GOLDEN-EYE, AMERICAN GOLDEN-EYE. By J. A. Munro. Trans. Royal Canadian Inst., 22, pt. 2, Oct., 1939: 259-318, figs. 1-4, pls. 2-6.

This is not just another paper in economic ornithology; it is a real contribution to the natural history of these waterfowl, based on 20 years' experience and observations. The author describes in detail the ranges, seasonal distribution, courtship and nesting habits; and much space is given to population and food studies. As to identification, the author emphasizes the less elaborate trachea of the drake Barrow's Golden-eye (*Glaucionetta islandica*), and almost entirely yellow bill of the adult female, from February to May. His field identifications of "yearling" females is evidently based on their darker bills. As a rule the adult females of the American Golden-eye (*G. clangula americana*) have much whiter wing coverts than do first year birds, but the author does not discuss wing differences as identification aids for either species. No help is offered in separating the first year hens of the two species. The more tapered bill and larger nail seem to identify most adults and yearlings of the Barrow's, but these bill characters proved variable in a series of ten juveniles from the Cariboo District. (It seems not unlikely that hybrids may occur in the northern part of British Columbia and in southern Alaska where breeding ranges slightly overlap.) The author states his belief that nesting areas are chosen on the basis of good feeding grounds rather than because of available nesting sites.

From examination of 116 stomachs of Barrow's Golden-eye and 80 of the American Golden-eye taken at widely separated and representative waters the author concludes: "The winter food of the American Golden-eye on coast waters appears to be substantially the same, under similar conditions of time and place, as that of Barrow's Golden-eye. While on fresh water both species feed upon salmon eggs, insect larvae, and occasionally small fish. On salt waters they eat crustaceans and mollusks and, for a short time, herring ova." * * * "The destruction of the clear eggs in the early part of the salmon run may represent a drain upon salmon production but of what extent it seems impossible to estimate." As regards the suggestion that local Golden-eyes be destroyed on the grounds that they compete for food with trout wanted by anglers, the author points out that the sandpipers and almost all birds about the lake also compete, and that ducks themselves have value for sport and food, as also do the trout. The paper concludes: "The breeding range of the American Golden-eye is extensive and because of its northern situation

the species is not subject to many of the vicissitudes connected with the propagation of the more southern nesting ducks. For this reason and because of its general abundance there is no immediate danger of any serious reduction in numbers. The situation in respect to Barrow's Golden-eye is quite different. The breeding range is comparatively small and includes much of the settled regions of British Columbia where young birds are shot for food and sport early in the hunting season. Nowhere does the species occur in numbers comparable to those of the American Golden-eye and summer populations may be reduced by drought as is the case with other southern nesting ducks. Thus any general project of control might seriously reduce the population of Barrow's Golden-eye."

No brief review can do justice to this paper. It well deserves careful reading by wildlife managers and other naturalists.—M. D. Pirnie.

TEMPERATURE, GROWTH AND OTHER STUDIES ON THE EASTERN PHOEBE by Dayton Stoner. New York State Museum Circular 22, November, 1939: 1-42, 27 figs.

A study is here reported of growth changes in 20 nestling Phoebes (*Sayornis phoebe*) distributed in 5 nests. An average of 6 measurements per day was made of body temperature, weight, lengths of 7 skeletal elements, and lengths of 4 flight feathers. Dimensions and weights are given of 20 eggs, although there is no indication whether the weights were of fresh eggs. The average size of the sets is given as 5 and the incubation period for 2 sets as 16 days.

The nestling period is divided into an initial interval of 3 days with slow growth, an intermediate period covering 9 or 10 days of vigorous growth, and a final period of 4 or 5 days of retarded or fluctuating growth. Perhaps it is not wholly accurate to say growth is slow during the first 3 days, for on the basis of percentage daily increment, weight, for example, increases 48 per cent per day during this period compared with only 23 per cent during the intermediate period.

Increase in body temperature was most rapid during the first 7 days. Temperature control is said to be established at 10 days although there is no evidence presented for this. The time of establishment of temperature control in young birds is important. This might be approximately determined under field conditions if two sets of readings are taken daily, one as soon as possible after normal brooding periods by the adult, the other after uniform periods when birds are exposed to air temperature. Giving average temperatures for the adult birds based on a few records only and as obtained by mercury thermometers is practically valueless because of the great variability in body temperature of small birds and because of the effect of handling.

Comparisons are made of growth rates in Phoebes with those of Barn and Bank Swallows. These comparisons would be more significant if the amount of variation within the species were better known. More important is the observation that maximum growth of feathers comes after the period of most rapid increase in weight and size, as the energy of the food is diverted from one channel into another. A useful discovery is the uniformity in length of primaries in young birds of the same age. With this knowledge a series of measurements may serve as a basis for the recognition of age.

Some 42 papers are cited in "References" at the end of the paper although only a half dozen or so are referred to in the text and many seem without particular bearing on the subject under discussion.

In general we commend the author for undertaking studies of this sort and hope that other bird students will follow suit. With the accumulation of sufficient data and careful analyses, useful information will become available on developmental processes, comparisons between species, and correlation with bird behavior.

—S. Charles Kendeigh.

THE BEHAVIOR OF THE SNOW BUNTING IN SPRING. By N. Tinbergen. Trans. Linn. Soc. New York, 5, 1939: 94 pp., 2 pls., 20 figs. in text.

This is a definitely superior contribution to the subject of territorial behavior of birds and a publication that is of concern to every active worker in this field. Dr. Tinbergen has presented his study in two sections: first, a connected account of activities from the time the Snow Buntings arrive in spring in eastern Greenland to the conclusion of the nesting period, and second, a general discussion of territory, fighting, song, sex recognition and bigamy that centers about the events in the lives of the buntings but is also an effective review to date of the significant contributions on these topics. Not every describer of territorial behavior need attempt so general a report on the field, much as he should be familiar with it, but such a review by a person of Tinbergen's experience and judgment is indeed welcome.

The story of the Snow Buntings is well told, is rich in comparisons with other species, and is illustrated by sketches of significant postures and plumage patterns. Attention is directed especially to the stereotyped response of the territorial male to all strange buntings. Females coming into the vicinity are threatened as are males, and only at close range is a new attitude assumed, serving to display the conspicuous markings of the male. Following pairing, a period of pre-oestrus ensues, with unsuccessful attempts at coition by the male, followed by sexual fights.

In his general discussion, Tinbergen concludes that fighting during or before the formation of sexual bonds serves to secure objects or situations that are indispensable for reproduction. The basis for attacking individuals is always sexual rivalry. Sexual fighting therefore serves to defend mate and territory against sexual competitors. The defense of the sex partner tends to prevent the partner from pairing with a second mate. "Like all causal factors that we are isolating from a whole complex of factors, it need not always be absolutely sufficient to prevent bigamy; it only helps establish monogamy." Monogamy in many species seems necessary for successful rearing of the young.

Tinbergen gives his definition of territory as follows: "Whenever sexual fighting is confined to a restricted area, this area is a territory." To avoid confusion with territory in the more general sense, he proposes to designate this type as sexual territory.

The sexual fighting of the female Snow Buntings is only partly connected with territory. The female never shows any knowledge of the exact boundaries of the male's area. The female is much more ready than the male to fight outside the territory, and, in fact, does not show the hesitation that is characteristic of the male in the same situation. The thing that releases sexual fighting in the female is another female that comes too close to the male.

Regarding the food value of territory, Tinbergen, contrary to some recent authors, favors the views of Howard in stressing the area as a food reservoir. Tinbergen thinks that, "it is idle to argue against a food value of the territory in general, and that it is necessary to recognize that there are many species of Passerines to which the territory is necessary to provide a *certain amount* of food. If this function is recognized, it is clear that it is irrelevant to claim that some of the food, or even much of the food, is taken outside the territory. . . ." He also concludes that territorial behavior does serve to prevent overcrowding. "Our only restriction is that the word prevent must not be taken in an absolute sense. As was pointed out before, a function of a biological process may not be expected to be absolute, for every process functions in coöperation with other processes." These opinions concerning the functions of territory find decided favor in the reviewer's mind. By recognizing these functions, there is no need to abandon the view that territory is essential, and was perhaps first important, in setting up and maintaining the sexual bond between members of a pair.—Alden H. Miller.

CANADIAN WATER BIRDS, GAME BIRDS, BIRDS OF PREY.

CANADIAN LAND BIRDS.

Two "Pocket Field Guides" by P. A. Taverner. Musson Book Co., Toronto, and David McKay Co., Philadelphia, 1939; $4\frac{1}{2}$ x $6\frac{1}{2}$ in., 291 pp. and 277 pp. \$2.50 each.

These two helpful companion books are, according to the author's own words, introductions to the more detailed "Birds of Canada" from the same pen. The text and illustrations are almost entirely from that work, the new volumes therefore being basically abridgments of it; there is, nevertheless, some new material. The first book listed includes the groups of the current A.O.U. Check-List through the shorebirds, and in addition the owls; the other contains the pigeons, cuckoos, and remaining groups.

In plan bearing a marked resemblance to that of Chester A. Reed's "Bird Guides," the new books differ from them in having a more extensive, interesting, up-to-date and authoritative text and on the whole greatly superior illustrations. These include colored plates from the brush of Allan Brooks, F. C. Hennessey, Ronald Ward Smith (one) and the author. In the two books are only five colored plates (all new with this edition) that illustrate groups of species, most of them showing merely the heads and foreparts. Unfortunately the color reproduction throughout does not equal that in the "Birds of Canada," but this is offset, particularly in the "Water Bird" volume, by the presence of the author's many enlightening black-and-white drawings. Among several Canadian species for which one might expect to find illustration of some kind and does not, are the Ring-necked Duck, Winter Wren, Northern Shrike, and Rusty Blackbird.

Species whose northern limits barely touch the Dominion of Canada are in general treated only briefly or not at all. It seems likely, nevertheless, that the "Water Bird" volume will be about as useful in the northern quarter of the United States as in Canada. Dedicated to sportsmen, upon whom rests in large measure the responsibility for conserving our wildlife, this book supplies information on the present state of scarcity or abundance of many species; and it directs particular attention to those that are largely beneficial to man.

While Roger Tory Peterson's excellent picture gallery and guide, "A Field Guide to the Birds . . . East of the Rockies," is designed alike for beginner and the more advanced, there are some who feel that it is slightly too advanced as an introduction. If this be true, then there will always be a place for guides in the more popular style—such as Reed's and now Taverner's, with a certain stress on identification but with information likewise on habits. Perhaps the perfect, all-purpose guide is an impossibility. Of the two Taverner hand-books, the "Water Bird" one is at least unique in having as its keynote economic status and conservation.—T. D. Hinshaw.

BIRDS IN THE GARDEN AND HOW TO ATTRACT THEM. By Margaret McKenny. Reynal & Hitchcock, New York, 1939: 7 x $9\frac{1}{2}$ in., xviii + 349 pp., text figs., tables, and 48 unnumbered pls. (16 colored, 32 halftone). \$5.00.

Here is a book that is probably the best of its kind that has ever been written. It contains not only lucid, authoritative descriptions of methods of attracting birds to several kinds of gardens, of feeding and caring for them under all conditions, and of getting the most out of them in beauty and song, but also much well-chosen and very readable natural history material. Furthermore, it covers a wide field of related topics such as care and feeding of stray birds, migration and banding of birds, handling birds of prey, and photographing birds. The book should prove a good stimulus in designing and arranging one's garden to full advantage for the birds.

Miss McKenny has based her book primarily on northeastern birds and gardens but her chapters on sanctuaries, descriptions of birds, and plants to attract birds have been adapted to all parts of the country. The fact, however, that her book is somewhat regional does not in any way prevent the methods described from being universally applied.

The reviewer finds one bit of rather important information on attracting birds left out of this book, namely, the methods of drawing hummingbirds to gardens by the use of colored vials containing sweetened water. The presence of hummingbirds in gardens contributes greatly to their natural charm and he believes these methods warrant attention because they surpass in effectiveness the more obvious methods of attracting these birds by growing plants with bright blossoms mentioned by Miss McKenny.

The book is illustrated with 16 colored plates from T. S. Roberts' "Birds of Minnesota" and with 32 half-tones largely from photographs. Of course, the colored plates, beautiful as they are, were not originally painted for a garden book; thus the birds are without appropriate backgrounds. Walter A. Weber has designed and painted the jacket especially for this book. It shows a Cardinal in a glorious garden. How short-sighted of the publishers not to repeat this one appropriate color piece elsewhere in the book, thereby making it a permanent part!

There is a detailed table of contents and a list of important references. The text is well indexed but the plates and half-tones are neither indexed nor listed in the front of the book and consequently there is no quick access to this useful illustrative material.—O. S. Pettingill, Jr.

THE BEEPS. THE FLIGHTS AND CRUISES OF THREE MISSOURI TREE SPARROWS. BY Virginia Holton. John Day Co., New York, 1939: 6 x 9 in., 192 pp. \$2.00.

In "this true account" we are told that the birds followed Lieut. and Mrs. Holton "for nearly 50,000 miles even to the interior of China and back." The story begins in Kansas City where Mr. and Mrs. Beep were in the habit of following Lieut. Holton to the office every day and also of accompanying the Holtons as they drove in the country. Later they followed the Holtons' car to New York City and back; then rode the train to San Francisco; stowed away on the boats to Hawaii and China and thence followed the Holtons in all their wanderings until at last their (The Beeps') descendants accompanied them to New York. These "Tree Sparrows" "married" "Chinese Sparrows" in China and "California Sparrows" and "New York Sparrows" in this country. The Holtons never actually saw the Beeps on the ocean voyage to China, although they searched for them (p. 87); on the return trips the Beeps are apparently assumed to have hidden and fasted for two weeks at a time between ports (p. 190). This was a feat in itself, since Dr. S. C. Kendeigh has found that English Sparrows cannot live more than two days without food.

The adventures in the Far East were most astonishing. The Beeps "told all the neighborhood birds about me" (p. 161) and persuaded a Tailorbird to come along on the cruise from the Philippines to China.

"The psychic Beeps enjoyed the Eucharistic Congress held in Manila. They seemed to sense the spiritual atmosphere . . . The Eucharistic Congress seemed to the Beeps a very fitting thing in that many of the meetings were held just before sundown and the beautiful music of the choir blended in with the Beeps' evening worship" (p. 163).

The Holtons declined to band the Beeps as it would have been "disloyal" to their little friends to do so. They never tell us how they distinguished them from others of their kind, except that Beep (in China) had a tiny white spot on his

forehead. The photographs of the Beeps taken in China show them to be *Passer montanus*.

To return to the start of the story in Kansas City, one small difficulty here is that European Tree Sparrows do not occur in Kansas City. Introduced in St. Louis in 1870, they have never been recorded more than 50 miles west of that city—some 180 miles from Kansas City. The original Beeps must have been English Sparrows and the Beeps in China Chinese Tree Sparrows. The Beeps in San Francisco and New York were English Sparrows, already inhabiting those localities. Apparently wherever the Holtons went they found "Beeps."

This is a fairy story if ever there was one, yet it is presented as fact. "In recording this true story of the Beeps," writes Mrs. Holton, "I have endeavored to confine myself closely to scientific observations and not to let my mind wander into the fertile field of the imagination." (p. 15.) The Holtons seem to believe what they are telling us; they present it as a "beautiful true story of loyalty, courage, and unselfish devotion," with no conception of the amazing claims they are making for physical and mental performance by a sparrow.

The Holtons have various eye-witnesses, but they never exhibited their extraordinary birds to an ornithologist, nor apparently did the publisher ask the advice of any ornithologist. This book has made quite a stir in popular circles. All that is necessary is to point out that the Beeps in this country must have been English Sparrows, since European Tree Sparrows do not occur in Kansas City, and that the Beeps in China were Chinese Tree Sparrows, and the whole story collapses.—M. M. Nice.

Field Museum has just published the first two parts of Reuben M. Strong's great "Bibliography of Birds." These two parts, listing about 30,000 titles, complete the author catalogue. A third and final part, now in press, will contain the subject index. A full review will appear in *The Wilson Bulletin* as soon as the publication of the final part makes this possible.

SHORT PAPERS

- ALDRICH, JOHN W. and DAVID C. NUTT. Birds of Eastern Newfoundland. *Sci. Publ. Cleveland Mus. Nat. Hist.*, 4, No. 2, Dec. 28, 1939: 13-42 (A list of 93 forms found in "eastern Newfoundland" by the junior author or by previous workers. Unfortunately there is no map or definition of what is included in "eastern Newfoundland." Two new forms are described: *Penthestes atricapillus bartletti* and *Turdus migratorius nigrideus*. The paper concludes with a "Bibliography of Newfoundland Birds" of 31 titles, apparently covering the whole of Newfoundland.)
- ALDRICH, JOHN W. Geographical Variation in Eastern North American Savannah Sparrows (*Passerculus sandwichensis*). *Ohio Jour. Sci.*, 40, No. 1, Jan., 1940: 1-8. (*P. s. mediogriseus* subsp. nov. named from Andover, Ashtabula County, Ohio.)
- BARTON, D. R. Apostle of the Birds. The life and times of Frank M. Chapman. *Natural History*, 45, No. 1, Jan., 1940: 48-51.
- BUXTON, E. J. M. The Breeding of the Oyster-catcher. *Brit. Birds*, 33, No. 7, Dec., 1939: 184-93.
- DAMBACH, CHARLES A. and E. E. GOOD. The Effect of Certain Land Use Practices on Populations of Breeding Birds in Southwestern Ohio. *Jour. Wildlife Management*, 4, No. 1., Jan., 1940: 63-76, figs. 1-2, pl. 2.
- DAVIDSON, VERNE E. An 8-Year Census of Lesser Prairie Chickens. *Jour. Wildlife Management*, 4, No. 1, Jan., 1940: 55-62, figs. 1-6. (*Tympanuchus pallidicinctus* in western Oklahoma).

- DAVIS, WILLIAM B. Birds of Brazos County, Texas. *Condor*, 42, No. 1, Jan., 1940: 81-5, map.
- ELLIOTT, JOHN J. Winter Habits of Myrtle Warblers on the South Shore of Long Island. *Bird Lore*, 42, No. 1, Jan.-Feb., 1940: 19-24, 2 photos.
- EMLLEN, JOHN T. JR. Sex and Age Ratios in Survival of the California Quail. *Jour. Wildlife Management*, 4, No. 1, Jan., 1940: 92-9, figs. 1-3. (*Lophortyx californica*).
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- FITCHE, HENRY S. Some Observations on Horned Owl Nests. *Condor*, 42, No. 1, Jan., 1940: 73-5.
- FRIED, LOUIS A. The Food Habits of the Ring-necked Pheasant in Minnesota. *Jour. Wildlife Management*, 4, No. 1, Jan., 1940: 27-36, fig. 1.
- GABRIELSON, IRA N. The Refuge Program of the Biological Survey. *Bird Lore*, 41, No. 6, Nov., 1939: 325-32, 4 photos.
- GERSTELL, RICHARD and WM. H. LONG. Physiological Variations in Wild Turkeys and their Significance in Management. *Pennsylvania Game Comm., Research Bull.*, No. 2, 1939 (60 pp., illus.).
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