

RECENT LITERATURE

Birds of Washington State.—Stanley G. Jewett, Walter P. Taylor, William T. Shaw, and John W. Aldrich. (Univ. Washington Press, Seattle). xxxii + 768 pp., 12 color pls., 99 halftone illus., 51 distr. maps, 1 life-zone map. 1953. Price, \$8.00.—In fairness to its distinguished panel of authors (one of whom, William T. Shaw, died five years before it was published), something should be said about the strange odyssey of this volume, which has survived at least as many buffetings of time and fate as the legendary Ulysses. The original draft was written by Taylor, with the collaboration of Shaw, about thirty years ago. Before it was published the authors went to other assignments, and the manuscript reposed in the files of the U. S. Fish and Wildlife Service for more than two decades. Then Jewett and Aldrich were given the task of reworking the manuscript and bringing it down to date. As anyone who has tried it knows, this is harder than writing one's own book in the first place. But Jewett and Aldrich did a conscientious, creditable job, completing their work in 1950 or earlier, as indicated by the bibliography, which contains only three or four entries later than 1948.

The publisher held the finished manuscript while months lengthened into years and then, as if in sudden remorse, hurried it through press with insufficient time for proofreading. This resulted in a number of unfortunate and wholly unnecessary errors, beginning on the title page with a typographical error in Jewett's name and ending with the life-zone map in a pocket on the inside rear cover, on which the legends for "Arid Transition (timbered)" and "Arid Transition (timberless)" are reversed. Actually the book contains no more than the normal and apparently inevitable number of errors that, embalmed on the printed page, rise up to haunt author, publisher and proofreader; in this case they have the misfortune to be conspicuous.

One other and rather minor flaw in the book can be attributed to the publisher. In the interest of economy, the colored plates (by Roger Tory Peterson, reproduced by permission of the National Audubon Society, frontispiece by E. R. Kalmbach) were made up in pairs and wrapped around signatures instead of being individually tipped in. Thus they are separated by either 32 pages or a multiple of 32, a distribution which, to persons unfamiliar with the art of bookmaking, must seem rather bewildering, e.g., a plate of the Brewer Blackbird turning up between the woodpeckers and the flycatchers, and a plate of the Black-headed Grosbeak opposite a description of the California Loggerhead Shrike.

This reviewer doubts the value of including Piper's 1906 life-zone map (from *Contr. U. S. Natl. Herb.* 11, *not* 2 as cited in the bibliography) without considerable revision. Piper's map takes no account of the rain shadow of the Olympic Mountains, nor of the fact that the climate of eastern Washington graduates toward that of the Rocky Mountains. Thus we find the anomaly that a sizeable area in western Washington which has a rainfall of less than 20 inches a year and practically no rain in summer (the area includes Sequim, Dungeness, Port Townsend, much of Whidby Island and probably parts of the San Juan Islands) is included in the "Humid Transition," while a larger area in eastern Washington that has an average rainfall of more than 20 inches, with more than half of it in the period April to September (the foothills of the Blue Mountains and much of the Okanagan Highlands), is mapped as "Arid Transition." I do not mean that the authors subscribe to Piper's map—indeed, on page 20, they introduce the term "Semiarid Transition Zone" for much of eastern Washington; I do question the use of an archaic life-zone map without revision.

The authors state in their introduction: "Records in all cases of doubt have been based on properly authenticated specimens; but sight records by observers deemed reliable have been accepted in many cases where the species concerned are widespread in the state or are easily or certainly identifiable." This is a defensible procedure, but it has not been carried out in practice. The Northern Red-billed Tropic Bird, the Northern Blue-footed Booby, and the Bronzed Purple Grackle, supported by one specimen each, are included in the state list, although they no more belong there than a canary or a parakeet. The Caracara, on the other hand, also supported by a specimen, is included only in the hypothetical list. (It is presumed to be an escaped captive bird.)

The Coast Bush-tit, supported only by sight records (and by specimens from the Oregon side of the Columbia River), is included in both the state and hypothetical lists. On p. 483 we read: "John B. Hurley found a nest of this species (sic) . . . on the Yakima Indian Reservation on April 13, 1947," etc. On p. 676 it is stated: "There is some question as to whether this race actually gets into Washington at all." The reader may accordingly feel certain misgivings about the map on p. 482 which shows the "breeding distribution" in Washington of this and the Puget Sound Bush-tit.

In their use of vernacular names, the authors have in general followed the recommendations of the A.O.U. Committee on Nomenclature. They are certainly not to be censured for this; but the A.O.U. Committee might itself well reconsider such infelicitous combinations as Harris Hairy Woodpecker and Mealy Common Redpoll. Consistency is not always a jewel. It is unlikely moreover that northwesterners will ever learn to call *Sialia mexicana occidentalis* the Western *Mexican* Bluebird. Even the authors occasionally forgot and called it the Western Bluebird, on p. 27 and under the colored plate. The most unfortunate vernacular names, such as Mountain Traill Flycatcher and Interior Slate-colored Junco, will probably fail to gain general usage through lack of acceptance of the underlying taxonomic concepts.

In the treatment of subspecies, and occasionally at the species level (e.g., the synonymizing of *Junco oreganus* with *J. hyemalis*), John W. Aldrich, who is principally responsible for this facet of the book, has paid little heed to the A.O.U. Committee or anybody else. It must be admitted that a taxonomist working on this kind of a book is in a difficult predicament. If he recognizes species or subspecies he considers valid that have not been baptized by the A.O.U., he is clearly open to criticism; if he does not recognize them, he is in the position of repudiating his own views. But persons using this volume should be aware that Aldrich has in effect functioned as a one-man committee on nomenclature.

The shortcomings of this book are largely attributable to multiple authorship, with the authors separated in both time and space, and to lack of liaison between the authors and the publisher. Its merits are genuine and substantial. It is the first comprehensive treatment of the birds of Washington since that of Dawson and Bowles in 1909. The descriptions and nesting data are carefully compiled from reliable sources, with due acknowledgment and occasional comment by the authors. The distributional data are valuable, though not as completely documented as could be wished. (The authors state in their Introduction: "References to the literature have sometimes been amplified or definitized in the text on the basis of correspondence or additional information on the record. It has not been deemed necessary to explain this in each instance.")

The Introduction, 47 pages in length, is itself a very useful document, covering topography, climate, life zones, history of ornithological work in the state, locations of the principal collections, introduction of foreign species of birds, and other topics.

The list of geographical localities referred to in the text, given near the end of the volume, is also a useful feature. The 51 "Breeding Distribution Maps" are helpful; they are not accurate in detail, but such maps are seldom more than approximations. The 99 halftone illustrations are well selected from the work of more than a score of good photographers. Why they are called "plates" is not clear—they are figures in the text; but they are a strong feature of the book.

The greatest importance of this work lies in the authors' comments on each species or subspecies, which make up the bulk of the text. Here we find a wealth of information on habits, behavior, food, distribution, nesting, migration, etc., from the observations of the authors themselves, supplemented by careful selections from the literature. This is the real meat of the volume, and this reviewer has found fascinating reading on every page.

Supplementing its value as a record of field observations, this volume brings into focus the present status of our knowledge of the birds of Washington, making clear the numerous areas in which further research is needed. The authors state with disarming modesty (p. 2): "It is hoped and anticipated that one of the chief values of the report will be in influencing resident ornithologists and others to publish supplementary information, and to make additional observations covering the many gaps apparent."—ROBERT C. MILLER.

Natural Communities.—Lee R. Dice. Ann Arbor, Michigan: Univ. of Michigan Press. xii + 547 pp., 17 tables, 52 figs, 1952. \$5.50.—This extensive treatment of terrestrial community ecology is worthwhile and useful, and it will continue to be so for some time to come. It behooves us, then, to examine the book, even a few years after its publication and notwithstanding the appearance of more recent books in the field. While this review should have been in the hands of the editor of 'The Auk' long before this, the delay has had its compensations since the passing time has enabled me to examine Dice's book more extensively and to subject it to various uses in courses and seminars in ecology.

"Natural Communities" deals with the facts and principles of community ecology in a general way and from the standpoint of terrestrial biota. There is very little on fresh-water communities and virtually nothing on marine communities. The chief topics of the 23 chapters are recognition of communities, methods of describing communities and populations, physical factors, food relations, fluctuations, relations of organisms to their ecosystems, spacing, social behavior, interspecies relations, community equilibrium, succession, and, finally, the classification, variation, geography, and history of communities. That is to say, the book gives us a panorama of community ecology as of 1950, stressing field work in terrestrial habitats and, among their animals, the vertebrates. In this latter respect, the book complements Orlando Park's extensive treatment of communities in Allee *et al.*

A chapter on methods of describing and measuring communities, while of necessity brief and bound to appear inadequate sooner than other parts of the book, is a welcome feature and one new to general works on terrestrial ecology. Because the problems posed by sampling in natural communities and populations are numerous, complex, and unavoidable, a student in an introductory ecology course should have access to such a discussion as Dice has now provided. Here various procedures and basic concepts having application to both plant and animal populations are summarized, and this will be useful however rapid the development of sampling and statistical methods in ecology may now be.

As a text, this book may be satisfactory in an advanced course stressing the community basis of field research in ecology and favoring the terrestrial. In a

course at Berkeley taken by seniors and graduates, I tried it as a text one year and found the students tended to get lost in details. While the author has selected these carefully and with relevance, the treatment of community ecology which results seems, in its concern with the scope of the field, to stress broad compartments of thought and all their corners. The result is that the marshalling of facts tends more to support the interplay of principles than to stay rigorously with one basic principle, then another, and so on. The result, however, is that "Natural Communities" is particularly useful for collateral reading.

From the description of the book now given, it is clear that it could have been given a more accurate title. The present title seems to promise a descriptive, comparative treatment of important community-types, their composition and distribution, in all environmental realms. I gain the impression, from discussions and other reviews of this book, that because the contents do not live up to this promise, the real values of the text, in summarizing and systematizing community concepts, have perhaps been put to a scrutiny more severe than might have been called for otherwise.

For the size of the book, the price is surprisingly low, and if there is an angel lurking in the background, we give our deepfelt thanks! The format, type, and binding are fine, and the illustrations (almost all line drawings) are clear. More illustrative material would surely have increased the usefulness of the text. There are several carefully prepared pencil sketches based on large photographs of landscape-types, but they were not all rendered with the same success. Also, reduction in size for publication weakened them. I am sure the original photographs, reproduced as half-tones, would have been more instructive.

In this book, Dice describes and explains more fully than in his earlier publications his system of biogeographic classification, that is, biotic provinces and their subdivisions. I must say that in the context of the modern concept of the ecosystem, biotic provinces make more sense now than they did earlier. I believe that students of biogeography will find the several chapters of this book devoted to this topic stimulating. The arbitrariness, vagueness, and argument usual to discussions in this field are evident here and, I think, not to be held particularly against this book because these faults merely characterize the present-day state of the field as a whole. Perhaps some readers will think this last statement implies an unwarranted optimism! The one complaint I have to make is that Clementsian views regarding community units and their classification are not presented clearly. The attempted comparison of his system with others is therefore misleading. The evidence for this complaint is scattered through chapters 16, 19, and 20. Anyone studying these chapters closely should be acquainted at least with relevant chapters in Weaver and Clements's text, with Cain's 1939 paper in the *American Midland Naturalist*, and with Tansley's chapters on vegetational classification in "The British Isles and Their Vegetation."

I should add, finally that there is a 49-page bibliography, which, for the reason given above, also complements the valuable bibliography in "Principles of Animal Ecology" by Allee *et al.* In addition, at the end of each chapter there is a list of selected references, which are fully cited in the terminal bibliography. This feature adds to the value of the book for collateral reading in ecology courses.

Dr. Dice's course entitled "Natural Communities," taught at the University of Michigan for many years, is the basis of this book. It therefore represents a distillation of materials accumulated over several decades and serves not only as a useful reference book but as a document helping to summarize the history of ecology over the first five decades of this century. A major period in that history seems to have

closed with the appearance of several important books around 1950, which now clear the way for future work. "Natural Communities" is one of them.—FRANK A. PITEKKA.

The Birds of Arabia. Colonel R. Meinertzhagen (Oliver and Boyd, Edinburgh) xiii + 624 pp., 1 folding map, 19 col. pls., 9 black and white pls., 53 text figs., 35 distribution maps, August 11, 1954. Four guineas.—As the first book to be written on the birds of Arabia this work fills a distinct place in the faunal literature of ornithology. That it will continue to do so is apparent from the obviously intimate knowledge of the country and its bird life that the author has brought to bear in his presentation. Where the data are meagre or unreliable, the author points out the need for improvement, and it is to be hoped that there may be found other naturalists to pick up where this account leaves off and eventually complete the picture.

Arabia is strategically located at the meeting place of three great faunal regions, the Palaearctic, the Oriental, and the Ethiopian, and its bird life contains species of fairly obvious affinities with each of these sources, as well as others that span them. To most of us, Arabia, if it conjures up any mental picture, means desert. While the greatest part of the land is arid or pure desert, Meinertzhagen points out that there are large areas in the southwestern and the southeastern parts of the country that rise to about 11,000 feet to what is almost an alpine zone. Being a great peninsula surrounded by water on three sides, the country has an unusually long coastal belt for its size—nearly 4,000 miles of seashore, and thus has come to include in its avifauna a large number of shore and water birds. According to a rapid tabulation of the birds recorded in this book, Arabia may claim an avifauna of 381 species, or, including races, 502 species and subspecies of birds. However, considerably less than 100 of these breed in the great peninsula, the rest being wintering birds, migrants, or stragglers.

In his account of each species and subspecies, the author gives what details he can of its local distribution and habits, as well as diagnostic descriptions of its plumages. This naturally comprises the largest part of the book and is the part that will be of continuing usefulness to ornithologists. Occasionally interspersed with these accounts are some statements that show the author's long preoccupation with certain species, and these form welcome summaries. Thus, of the yellow wagtail, of which species no fewer than 14 races have been found to occur in Arabia, Meinertzhagen writes that the species has "an almost entirely continental distribution, and yet we find the reverse of normal variation in that it is not clinal. This is due to the fact that every population is isolated by virtue of its eco-tolerance, which confines them to valleys, swamps and lake shores; their distribution can be likened to that of a species which is distributed over a huge archipelago composed of many hundreds of islands, each isolated from the other and each having its distinctive race; and yet they all, or almost all, meet and mix in their winter quarters"

Aside from the systematic portion of the book, there are chapters on the geology, geography, and climate of the country, on desert coloration, on distribution and migration of birds, and one on the history of Arabian ornithology. The author has his own ideas on such topics as desert coloration and presents them in an unnecessarily one-sided fashion. In so far as his statements may be taken as his reactions to his observations, no one need quarrel with him, but they are not as final as their presentation seems to infer. Here and there, throughout the book, Meinertzhagen has written with some impatience and irascibility; trends and workers with whom he disagrees are dismissed in rather highhanded manner, and potential critics or dissenters are written down in advance.

Occasionally the author lets himself go in ill advised anthropomorphic expressions, as when he defends his arrangement from crows to ostriches instead of the other way about. "I have resisted the more modern system of placing the most archaic, the stupidest and least educated birds first, as it seems to follow the modern trend to democratise systematics; I prefer placing the best educated, most intelligent and socially superior birds first. Birds are by no means a classless society and cannot be made so, any more than can the human race . . ." Some of his comments on bird behavior are similarly anthropomorphic.

The volume is a handsome example of fine book making; it is well printed on heavy, coated paper, and is embellished by a profusion of illustrations. Of the 19 colored plates, D. M. Henry is responsible for 13, G. E. Lodge for 5, and A. Thorburn for 1. Most of the subjects are well chosen, but it seems a pity to have left some of the little known, desert birds unfigured and to have given colored plates of such familiar creatures as the ringed plover or the hepatic form of the European cuckoo.—HERBERT FRIEDMANN.

Shearwaters.—R. M. Lockley. xi + 238 pp., 31 photos. \$4.00. New York: Devin-Adair.—Primarily this book is concerned with the Manx Shearwater (*Puffinus puffinus puffinus*) which nests in thousands upon the author's island home of Skokholm off the coast of Wales, but we are also given a vivid picture of the passage of the seasons in the blooming of the flowers and the migrations and nesting of the other birds of the island. Mr. Lockley made an intensive study for twelve years of the group of shearwaters nesting near his home, banding each one and following their marital relationships and nesting success. He discovered that most birds remated year after year, although a few divorces did occur. One individual nested for ten years, another for eleven.

Because of their enemies, the Great Black-backed Gulls, the shearwaters come to their burrows only during the hours of darkness. Apparently mates never see each other but must recognize each other by voice, there being much variety in the screams and howls of different individuals. Parents never normally see their chick, nor the chick them. Incubation and fledging are prolonged processes, lasting some 51 and 72 days respectively. Each parent incubates for three to five days at a stretch while its partner is fishing far away. When the chick is about 60 days old the parents cease their visits. The young bird stays in the burrow for about six days, then comes out each night for a little exercise of its wings for about a week, then makes its way to the sea during darkness. This is sometimes a long and difficult journey and some young do not reach their goal by morning. The Lockleys gathered up some of these unfortunates before they were found by predatory birds and released them in the sea. Almost at once they swam, drank, bathed, dove, and swam under water with half-opened wings like adults.

Three chapters are devoted to remarkable homing experiments in which nesting birds returned from the Faeroe Islands, from Switzerland, and from Venice. The final chapters tell of the Lockleys' visits to Portuguese islands in search of shearwaters and petrels, adventures in which they showed courage, hardihood, and great determination. On the islands off the coast of Portugal they found: "Every thing was eaten, shot, robbed, or killed down. There were collectors, too, supplying museums and zoos," p. 198. On the Desertas east of Madeira, the Lockleys banded many nesting Bulwer's Petrels, and on the Salvages north of the Canary Islands, many Cory's Shearwaters; these are 'managed' here, the adults unmolested, and each September from ten to twenty thousand fledglings taken for the market.

The many photographs and good index add to the value of this volume. All in all, it is a thoroughly delightful book and an important contribution to ornithology.—**MARGARET M. NICE.**

[This important book, originally published by J. M. Dent and Sons, Ltd., London, in 1942, has not hitherto been reviewed in 'The Auk.' Ed.]

The Literature of Australian Birds: a History and a Bibliography of Australian Ornithology.—H. M. Whittell. Paterson Brokensha Pty. Ltd. Perth, Western Australia. Part I (history) 116 pp., Part II (bibliography) 786 pp., 32 plates. Paper bound, 70 Austr. shillings; \$8.00.—The Australian bird students are to be envied. They now possess a superb, critical bibliography of Australian ornithology, written by an author who was not only an ornithologist, but a scholar and bibliophile. In Major Whittell, who unfortunately passed away while the volume was in the press, Australia has lost one of its outstanding ornithologists and bio-historians. Whittell has previously made a name for himself through a series of papers on John Gilbert and other early explorers of Western Australia as well as through his excellent Handbook of Birds of Western Australia (with D. L. Serventy).

Part I is a History of Australian Ornithology from 1618 to 1850 (116 closely printed pages). It is a pleasure to study this history written by one who had the literature at his fingertips and knew both birds and country so intimately. Extensive passages from the books and papers of early explorers are quoted in the original. The 32 plates either portray birds or ornithologists, or facsimiles of manuscripts or title pages. The bibliography, which is part II of the volume, contains the titles of more than 10,000 publications. The majority of the citations are annotated with short abstracts of the contents. With the list of the publications is given a short biography of each author, full of invaluable information which would be difficult to obtain elsewhere. This includes the routes of collectors and expeditions, and references to published biographies and to non-ornithological papers. If anything about this volume is to be criticized it is the fact that much of the paper of the text pages is unfortunately of inferior quality. Nevertheless, we must be grateful to the publisher for his courage in undertaking the publication of this enormous volume. Everyone who has an interest in the Australian region or in the history of ornithology must have this work in his library. Considering its size it is certainly a remarkable buy.—**E. MAYR.**

Principles of General Ecology.—Angus M. Woodbury. (New York: Blakiston Co.) 503 pp., 167 figs. 1954. Price \$6.00.—In 1949 the authors of *Principles of Animal Ecology* (New York: Saunders) stated in the preface that there was a current demand for several types of ecology texts, one of which was "a brief statement of the underlying principles" of ecology (p. vii). Since that time, several such texts have appeared, the most recent of which is Dr. Woodbury's. To ecologists especially, this is an encouraging sign since it further indicates not only the great progress made in the accumulation and synthesis of ecological data in recent years, but also the increasing interest in and demands for this science.

The present work is organized much as some other beginning texts in ecology are—sections on general orientation (history, definitions, organismal and environmental relationships, and limitations of the text), an analysis of physical environmental factors, and finally the many facets of "biotic interrelationships." In speaking of historical perspectives (p. 29) one cannot help but wonder why the author has not brought the reader up to date by indicating more contemporary ecologists and

their important contributions. Even beginning students of ecology should be familiar with the important books by Allee *et al.*, Dice, and others that could be mentioned. The third section of the book entitled "biotic interrelationships" embraces sixteen chapters, dealing with such subjects as populations, communities, adaptations, and social relations. There is, finally, a selected bibliography of about 450 titles. This organization purports to follow the ecosystem approach, but in reality it becomes, in many instances, an analysis of adaptational characters of organisms.

It seems to me that Dr. Woodbury's book will perhaps be of limited use for instructional purposes outside of Utah and the western part of the country for two reasons. In the first place, I believe the author has been entirely too limited in his choice of examples and illustrations for the various ecological principles, because the vast majority of these is taken from the western United States. Although this might not be a serious objection, beginning students in other geographic regions might have some difficulty in grasping principles, the examples of which are continually taken from a flora and fauna largely unfamiliar to them. In the second place, the book is very weak on discussions of fresh-water and marine ecology. Only one short chapter of some sixteen pages is devoted to aquatic ecology. Whereas problems of aquatic ecology might be relatively unimportant in some areas of the country, it would seem that any textbook dealing with basic ecological principles should contain more information on this important phase of ecology. Furthermore, it is difficult for me to see why a beginning textbook in ecology should contain such cumbersome physical details as the periodic table of chemical elements or complex charts on electromagnetic radiations. It is axiomatic that the biotic and abiotic environments are inseparably and intricately interrelated and that students should have a working knowledge of such data, but many of these details might well have been left to the elementary chemistry and physics textbooks. In their place, the author could have discussed more pertinent ecological principles, such as life tables, population growth curves, and density factors.

With only a few exceptions, the illustrative charts, graphs and maps, many of which are original, are presented in a legible and unencumbered fashion. To beginning and advanced students alike, I am certain that these illustrations will be welcome for their clarity. Ornithologists will find a liberal sprinkling of avian examples in the text.—DAVID W. JOHNSTON.

The Birds of French Cameroon.—Rev. A. I. Good. Part I, 203 pp.; Part II, 269 pp. *Mém. de l'Institut Français d'Afrique Noire, Centre du Cameroun, Série: Sci. Natur.* No. 2 (1952) and 3 (1953). The author, long a missionary in French Cameroon, spent nearly a score of years in collecting birds in this protectorate. Of the approximately 6,000 specimens taken, about 5,000 are now in the Cleveland Museum of Natural History and 1,000 in the Chicago Museum of Natural History. The territory had been worked so long and thoroughly by Bates and others that no new species or races were discovered. The author personally collected at all the places shown on the map (Part I, op. p. 18) except three where he sent his boy. A total of 748 forms is listed, while an addendum mentions 183 others likely to be found in Cameroon.

The classification and nomenclature follow Sclater, 'Systema Avium Aethiopicarum.' In view of the simultaneous appearance of the work under review and Bannerman's 'The Birds of West and Equatorial Africa,' it is of interest to note that there are many differences in nomenclature. In the few examples given, Bannerman's usages are given in parentheses: *Telacanthura ussheri* (*Chaetura*); *Alterapus*

sabini (*Chaetura*); *Ardea goliath* (*Typhon*); *Burhinus senegalensis* (*Oedicnemus*); *Charadrius tricollaris* (*Afroxyechus*); *Eremialector quadricinctus* (*Pterocles*); *Horizocerus hartlaubi* (*Lophoceros*); and *Clamator cafer* (*C. levaillantii*).

The 70 black and white illustrations are taken from publications by Bates, Chapin, and Malbrant. For each form there is given a brief description of the plumage, colors of soft parts, measurements, statements on status and habits, and localities where collected. There are indices of scientific, English, and native names of the birds. Patently the text was prepared with great care. The assemblage of all the known information on the birds of Cameroon under one cover, will make this publication highly useful.—A. W. SCHORGER.

Composition of Scientific Words, a Manual of Methods and a Lexicon of Materials for the Practice of Logotechnics.—Roland Wilbur Brown, Published by the author (c/o U. S. National Museum, Washington 25, D. C.), 1954, 882 pages, \$8.00, postpaid.—For fourteen years the author, well-known as a paleobotanist, has devoted his leisure hours to the assembly of materials that constitute the basis of scientific nomenclature, in both the taxonomic and the ordinary sense. His sources have been many, his four page bibliography including treatises on names for the new baby, vulgar latin and unconventional English, both slang and profane, as well as the the more usual sources. The work is cross-referenced, with English key-words often subdivided under several or many parts. While designed for the lexicographer it will be of maximum aid to systematists in any branch, since in this volume there is to be found a most convenient source of names for new forms of any category, as well as definitions for most such terms that a reader may encounter. The introduction in addition discusses basic latin and greek in those areas of grammar useful to the one who manufactures words for any purpose.

Finally, it may be remarked that the author has chosen to underwrite the publication personally in order to hold the cost at as a low level as possible so as to make the book available to those of his fellow scientists who operate on limited financial budgets.—ALEXANDER WETMORE.

Bird Songs of Dooryard, Field and Forest. No. 2. Recorded by Jerry and Norma Stillwell (Jerry E. Stillwell, R.F.D. 2 Fayetteville, Arkansas). This is the second long-playing phonograph disk to be produced by the Stillwells. The first one (*Auk* 70: 223, 1953) contained the songs of birds of more southern distribution. This one contains songs of the more northern birds. Some of the species of the first disk are here recorded again that there may be comparisons of species whose songs are similar.

The reproduction of the songs of the 59 species is excellent. The selection of material, in species whose songs vary considerably, gives us examples of the songs that are most typical of the majority that we hear. For many of the species, several songs by different individuals are reproduced, so that we may realize that we are listening to a song of an individual and not the song of the species.

Throughout, the arrangement of species is such that we can compare songs that seem confusingly alike and note the differences. Thus the disk begins with the Robin, the Summer and Scarlet tanagers, and the Rose-breasted Grosbeak. These are followed by the Orchard and Baltimore orioles. Soon after, we find the Red-eyed, Yellow-throated and Blue-headed vireos, the last named singing not only its regular song, but also the one in which it runs all of its notes together, without a pause. We hear the snappy song of the White-eyed Vireo and some of its imitations. The curious question and answer song of Bell's Vireo is well reproduced, and the Warbling Vireo is followed, very appropriately, by the Purple Finch.

The little-known song of Lincoln's Sparrow is of interest, for it shows how this bird is much more readily identified and distinguished from the Song Sparrow by its song than by its plumage. There are songs of ten sparrows, fourteen warblers, and the disk ends with songs of all five of the *Hylocichla* thrushes.

In some of the records, the songs are first played as they are sung and then they are slowed down until they are an octave or more lower in pitch. By this means, the song is made richer in quality to our ears, and we get many little short notes that we could not have distinguished at normal speed.

This disk should prove exceedingly helpful to many bird lovers who find difficulty in remembering songs from year to year. The fact that we can hear two somewhat similar songs, one after the other, as we seldom or never could in nature, makes it especially valuable. It is also helpful to those of us who wish to study details and variations of songs. If, in the winter months, we grow hungry for bird songs, we can turn on the phonograph, close our eyes, and imagine that a Robin is carolling in the dooryard, or that we are out in the field and a Vesper Sparrow is singing, or that we are listening to a Hermit Thrush up in the mountain forest.—ARETAS A. SAUNDERS.

- ALLOUSE, B. E. 1953. The avifauna of Iraq. College Arts Sci., Iraq Nat. Hist. Mus. Publ. 3, vii + 163 pp., 1 map.—Annotated list of the species and subspecies known to occur in Iraq.
- BATTS, H. L. 1954. An American Bittern [*Botaurus lentiginosus*] with a deformed bill. *Wilson Bull.*, **66**: 142, 1 photo.
- BEHLE, W. H. 1954. Second records of the Swamp Sparrow and Brown Thrasher in Utah. *Condor*, **56**: 312-313.
- BERGER, A. J., and W. A. LUNK. 1954. The pterylosis of the nestling *Coua ruficeps* [Cuculiformes]. *Wilson Bull.*, **66**: 119-126, 2 figs.
- BLACKFORD, J. L. 1954. Record families of Swainson Thrush. *Condor*, **56**: 314-315.
- BRUNS, H. 1954. Neue Ergebnisse und Erkenntnisse im forstlichen Vogelschutz. *Waldhygiene*, **1**: 10-22.—New conclusions and facts in forest bird protection. In German. The new journal in which this article appears may be ordered from Das Institut für Angewandte Zoologie der Universität, (13a) Würzburg, Germany.
- BURGER, G. V. 1954. Wild Turkeys in central coastal California. *Condor*, **56**: 198-206.—A discussion of populations of introduced birds, habitat preferences, general events in the annual cycle, and sex ratios.
- CASTENHOLZ, R. W. 1954. Observations of sea birds off the southeastern Florida coast. *Wilson Bull.*, **66**: 140-141.
- CHARLES, G. E. 1954. Breeding habits of the Catbird. *Chat*, **18**: 73-78.
- COOCH, G. 1954. Ross Goose in the eastern Arctic. *Condor*, **56**: 307.
- COTTAM, C. 1954. Bird records for Nevada. *Condor*, **56**: 223-224. *Aegolius acadicus*, *Ixoreus naevius*, and *Dendroica townsendi*.
- DENNIS, J. V. 1954. Meteorological analysis of occurrence of grounded migrants at Smith Point, Texas, April 17-May 17, 1951. *Wilson Bull.*, **66**: 102-111, 2 tables.—The arrival of a cold front grounded migrants at this coastal spot while southerly winds with rising temperature resulted in the departure of migrants.—J. T. Tanner.
- DEVLIN, J. M. 1954. Effects of weather on nocturnal migration as seen from one observation point at Philadelphia. *Wilson Bull.*, **66**: 93-101, 2 figs., 1 table.—In the spring of 1953, it was found that the majority of migrants arrived on south-

- erly winds or on temperate, calm nights. Relatively few birds came in on nights with northerly winds.—(author's summary).
- DICKERMAN, R. W., and A. R. PHILLIPS. 1954. *Molothrus ater ater* in Arizona. *Condor*, **56**: 312.
- DOWNES, T. 1954. Pleistocene birds from the Jones Fauna of Kansas. *Condor*, **56**: 207–221.—10 genera are identified. *Bartramia longicauda*, *Calamospiza melanocorys*, and *Calcarius* are reported for the first time as fossils.
- FAITH, E. 1954. Bibliography of bird pictures and articles. *National Geographic Magazine*. N. H. Bird News **7** (2): 8–10. List reprinted from 'The Passenger Pigeon,' with authors' names added.
- FORSYTH, L. 1954. Crossbills eating mortar. N. H. Bird News **7** (3): 40. Red crossbills probably picking bits of mortar from stone tower to serve as grit.
- FRANTZ, W. L. 1954. Some effects of hypophysectomy on the domestic hen (*Gallus domesticus*). *Ohio Journ. Sci.*, **54**: 335–341, 1 fig. Hypophysectomy led to atrophy of thyroids and ovary with accompanying effects on behavior and external morphology.
- GRABER, J. W. 1954. Additional notes on the birds of southwestern Kansas. *Wilson Bull.*, **66**: 149–151.—On ten species.
- GRABER, R. R., and J. W. GRABER. 1954. Comparative notes on Fuertes and Orchard orioles. *Condor*, **56**: 274–282.
- GLENNY, F. H. 1954. Deletion of the systemic arches and evolution of the aortic arch system in birds. *Ohio Journ. Sci.*, **54**: 240.
- GLENNY, F. H. 1954. Antarctica as a center of origin of birds. *Ohio Journ. Sci.*, **54**: 307–314. It is recommended that Antarctica be given serious consideration as the center of origin of birds, the reason being based on inferences derived from palaeogeographical, neogeographical, anatomical, and ecological evidence. The Archaeornithes are not considered to have contributed to avian evolution and true ancestral birds are more likely to be found in the Jurassic coal deposits of Antarctica.
- HATCH, R. 1954. The master of our woods. N. H. Bird News **7** (1): 17–18. Experiences with a Barred Owl.
- HINDE, R. A. 1954. Changes in Responsiveness to a Constant Stimulus. *Brit. Journ. Anim. Behav.*, **2** (2): 41–55.
- HOWELL, T. R., and T. J. CADE. 1954. The birds of Guadalupe Island in 1953. *Condor*, **56**: 283–294.—The authors present a description of the physical features, major plant species, check-list and relative abundance of birds, and a bibliography on Guadalupe Island birds since 1927.
- HUBBS, C. L. 1954. Western Gull, with symmetrical wing patches, resembling aberrant Heermann Gulls. *Condor*, **56**: 228.
- HUGHES, W. M. 1954. The Ash-throated Flycatcher at Vancouver, British Columbia. *Condor*, **56**: 224.
- HUNT, I. 1954. Bewick's Wren in Monroe. N. H. Bird News **7** (3): 6–7. April 24–May 3 bringing material into House Wren box from which it was later evicted by the House Wren.
- JOBIN, L. 1954. Additional bird records for the Cariboo Parklands, British Columbia. *Condor*, **56**: 223. *Dendroica magnolia*, *Dendroica striata*, *Riparia riparia*, and *Empidonax difficilis*.
- JOHNSTON, R. F. 1954. Variation in breeding season and clutch size in Song Sparrows of the Pacific Coast. *Condor*, **56**: 268–273.—This analysis of breeding season and clutch size for several localities from Baja California to Alaska (36

degrees of latitude) reveals that the breeding season is shorter and begins later in the year at higher latitudes. Clutch size increases with increasing latitude and altitude but with decreasing longitude, and when these data are compared with Hopkins' bioclimatic law, there is a good correlation between retardation of breeding and increasing latitude, altitude and probably longitude.—David W. Johnston.

- KILHAM, L. 1954. Beaver and wildlife. N. H. Bird News 7 (3): 3-5. Reprinted from 'The Atlantic Naturalist.' Beaver dams create habitats favorable to ducks, and passerines are attracted to the pond edge.
- KINSEY, E. C. 1954. A third record of the Black-throated Blue Warbler in California. Condor, 56: 311.
- KOELZ, W. N. 1954. Ornithological Studies. I. New Birds from Iran, Afghanistan, and India. Contr. Inst. Regional Exploration (P. O. Box 2143, Univ. Station, Ann Arbor, Mich.), 1: 1-32.—*Suthora poliotis patriciae*, *Psittiparus ruficeps psithyrus*, *P. r. rufitinctus*, *P. gularis schoeniparus*, *Garrulax galbanus galbanatus*, *G. gularis gravior*, *Ianthocincla rufogularis rufiberbis*, *Stactocichla merulina mimina*, *Babax lanceolatus oribata*, *Argya earlei soniviva*, *A. longirostris arcana*, *Pomatorhinus ruficollis recter*, *Xiphorhamphus superciliaris arquatiellus*, *Gampsorhynchus rufulus ahomensis*, *Chrysomma sinensis nagaensis*, *C. s. saurashtrensis*, *Napothera brevicaudata naphaea*, *Rimator malacoptilus amadoni*, *Stachyris nigriceps ravida*, *S. chrysaea chrysocoma*, *S. c. crocina*, *S. ruficeps rufipectus*, *S. pyrrhops ochrops*, *Alcippe nipalensis khasiensis*, *Lioparus chrysolis albilineatus*, *Leioptila gracilis ardosiacae*, *Actinodura egeroni montivaga*, *Siva cyanouroptera thalia*, *S. c. rama*, *Yuhina gularis vivax*, *Y. occipitalis atrovinacea*, *Y. nigrimentum titania*, *Cutia nipalensis nagaensis*, *Pteruthius aenobarbus aenobarbulus*, *P. erythropterus glauconotus*, *Aegithina nigrolutea sulfurea*, *Chloropsis cochinchinensis chloreus*, *Criniger flaveolus viridulus*, *C. f. aureolus*, *Ixos mclellandii vargus*, *Molpastes cafer afer*, *M. leucogenys picru*, *Pnoepyga albiventer vegeta*, *Tesia castaneocoronata regia*, *Cinclus pallasi iudina*, *Turdus unicolor subicolor*, *Myophonus caeruleus euterpe*, *Saxicola torquata excubitor*, *Phoenicurus frontalis perates*, *Zoothera monticola tenebricola*, *Hemichelidon ferruginea russata*, *Cyornis superciliaris cleta*, *C. westermanni exquisitus*, *Alseonax muttui khosrovi*, *Niltava grandis pangpui*, *Hemipus picatus pileatus*, *Coracina javensis lushaiensis*, *Dicrurus macrocercus tsipi*, *Orthotomus atrigularis latebricola*, *Phylloscopus pulcher pernix*, *P. reguloides terpsinus*, *P. occipitalis extimus*, *Seicercus burkii nemoralis*, *Tickellia hodgsoni rupchandi*, *Scotocerca inquietus elaphrus*, *Neornis flavolivaceus stresemanni*, *N. f. circumspectus*, *Homochlamys fortipes manis*, *H. f. mizorum*, *H. major vafer*, *Horeites brunnifrons muroides*, *Prinia gracilis kirmanensis*, *Sturnia malabarica assamica*, *Lonchura punctulata catervaria*, *Mycerobas melanozanthus ossifragus*, *M. m. pangpui*, *Emberiza striolata tescicola*, *Hirundo daurica khasica*, *Motacilla alba albula*, *Calandrella raytal vauriei*, *Oreocorys sylvanus oreinus*, *Aethopyga gouldiae melittae*, *A. g. trochiloidea*, *Dicaeum ignipectus pulchellum*, *Gecinulus grantia aristus*, *Hypopicus hyperythus* [sic] *henoticus*, *Dendrocopos darjellensis diatropus*, *D. cathpharius cruentipectus*, *D. macei humei*, *Blythipicus pyrrhotis porphyreus*, *B. p. pyrrhopipra*, *Brachypternus benghalensis girensis*, *Cuculus micropterus fatidicus*, *Taccocua leschenaultii vantynei*, *Psittacula krameri fragosa*, *Nyctyornis athertoni bariletti*, *Apus melba nubifuga*, *A. acuticaudus rupchandi*, *Caprimulgus macrurus noctuwigilus*, *C. m. silvanus*, *C. indicus memnon*, *Batrachostomus hodgsoni rupchandi*, *Strix nivicola obrieni*, *Otus sunia khasiensis*, *Columba palumbus kirmanica*, *Streptopelia orientalis meridionalis*, *S. o. khasiana*, *Pterocles coronatus ladas*, *Gallus gallus gallina*, *G. sonneratii wangyeli*, *Tragopan*

blythii rupchandi, *Bambusicola fytchii rincheni*, *Arborophila rufogularis tenebrarum*, *Alectoris graeca farsiana*, *Francolinus francolinus festinus*, *F. gularis ridibundus*, *F. pondicerianus prepositus*, *F. p. titar*, *F. p. paganus*, *Rallus aquaticus arjanicus*, *Scolopax rusticola ultimis*, new subspecies.

Luscinia daulias, new species.

- KOELZ, W. N. 1954. Ornithological studies. II. A new subspecies of Red-bellied Woodpecker from Texas. *Contr. Inst. Regional Expl.*, 1: 32.—*Centurus carolinus harpaceus*, Matagorda, Matagorda Co., Texas, new subspecies.
- KOELZ, W. N. 1954. Ornithological studies. III. On the validity of *Galerida malabarica propinqua* Koelz. *Contr. Inst. Regional Expl.*, 1: 33.
- LEGG, K. 1954. Two species of fish brought to nestling Pigeon Guillemots. *Condor*, 56: 231.
- LEGG, K. 1954. Additions to the avifaunal record of Point Lobos, California. *Condor*, 56: 313-314. 25 species are mentioned.
- LORD, F. P. 1954. Notes on a Sparrow Hawk. *N. H. Bird News* 7 (1): 38-39. Activities noted during rearing of a downy young.
- LORD, F. P. 1954. Nesting of a Pine Siskin. *N. H. Bird News* 7 (3): 32. A second nest (see Auk, 1941). Parents not observed to brood young even during long rainy period; both parents fed young by regurgitation, and male fed female during incubation.
- MANVILLE, R. H. 1954. Vertical migration in certain fringillids. *Wilson Bull.*, 66: 146.—At Shenandoah National Park, Virginia.
- MCATEE, W. L. 1953. Longevity of bird names. *Names*, 1: 85-102. (Reprints available from the American Name Society, University of California Press, Berkeley 4, Calif.; price, ten cents.)—A well documented article on the history of vernacular names of birds.
- McKINNEY, D. F. 1954. An observation on Redhead parasitism. *Wilson Bull.*, 66: 146-148, 4 photos.—An *Aythya americana* observed laying an egg in a nest occupied by a female Canvasback (*Aythya valisineria*).
- McLEOD, E. R. 1954. Sandhill Cranes at Meiss Lake, northern California. *Condor*, 56: 227.
- MEANLEY, B. 1954. Nesting of the Water-turkey in eastern Arkansas. *Wilson Bull.*, 66: 81-88, 2 photos.—Observations on one colony of *Anhinga anhinga*.
- MILLER, A. H., and R. T. MOORE. 1954. A further record of the Slaty Finch in México. *Condor*, 56: 310-311.
- MILLER, F. W. 1954. Ross Goose in Texas. *Condor*, 56: 312.
- MILLER, L. 1954. A Sparrow Hawk's roosting schedule. *Condor*, 56: 230-231.
- MINER, N. R. 1954. Golden Eagles attacking coyote. *Condor*, 56: 223.
- MITCHELL, M. H. 1954. North American birds on the Brazilian coast. *Wilson Bull.*, 66: 139-140.—8 species, 6 being shorebirds.
- MONSON, G. 1954. Westward extension of the ranges of the Inca Dove and Bronzed Cowbird. *Condor*, 56: 229-230.
- NAYLOR, A. E., A. W. MILLER, and M. E. FOSTER. 1954. Observations on the Sandhill Crane in northeastern California. *Condor*, 56: 224-227.
- NICE, M. M. 1954. Problems of incubation periods in North American birds. *Condor*, 56: 173-197.—In this lengthy discussion, the author defines the incubation period and then points out persistent errors concerning the incubation periods of New World species, these having been copied and quoted as erroneous data for more than 100 years in some cases. Several people have guessed that the length of incubation corresponds to the size of the bird or the egg, but Nice

- points out that "the critical factor determining length of incubation is rate of development of the embryo."—David W. Johnston.
- NICKELL, W. P. 1954. Redwings [*Agelaius phoeniceus*] hatch and raise a Yellow-billed Cuckoo [*Coccyzus americanus*]. *Wilson Bull.*, **66**: 137.
- NICKELL, W. P. 1954. Yellow-billed Cuckoo's [*Coccyzus americanus*] egg in Mourning Dove's [*Zenaidura macroura*] nest. *Wilson Bull.*, **66**: 137.
- NICKELL, W. P. 1954. Mourning Doves [*Zenaidura macroura*] nest in Black-crowned Night Heron [*Nycticorax nycticorax*] nests. *Wilson Bull.*, **66**: 137.
- NORRIS, R. A. 1954. New information on the White-crowned Sparrow in southern Georgia. *Oriole*, **19**: 25-31.
- O'NEILL, E. J. 1954. Ross Goose observations. *Condor*, **56**: 311.
- PARKER, H. M. and R. P. EMERY (eds) 1953. Records of New England Birds, Mass. Aud. Soc. **9**: 1-20. Unusual records of freshwater ducks; over 11,000 Kittiwakes off Cape Ann in one day; and many unusual spp. of passerines, including Arkansas Kingbird, Bullock's Orioles (2), Western Tanagers (8), Black-headed Grosbeak, and Oregon Juncos (3). 162 spp. are listed for January.
- PARKER, H. M. and R. P. EMERY (eds) 1953. Records of New England Birds. Mass. Aud. Soc. **9**: 21-40. Geese started north from Plum Id. by February 19; 23 spp. of ducks included 2 Shovellers; Turkey Vultures in Conn., February 22-27; singing Woodcock, February 22 in Mass.; Northern Phalarope at Eastham, Mass.; many passerines included "over a dozen" Hoary Redpolls and large numbers of White-winged Crossbills. 161 spp. are listed for February.
- PARKER, H. M. and R. P. EMERY (eds) 1953. Records of New England Birds. Mass. Aud. Soc. **9**: 41-60. Turkey Vulture in Vermont; Black Vulture in Mass.; Iceland and Ring-billed gulls in central Mass.; and Green-tailed Towhee at Bradford, Mass. 164 spp. are listed for March.
- PARKER, H. M. and R. P. EMERY (eds) 1953. Records of New England Birds. Mass. Aud. Soc. **9**: 61-88. Glossy Ibis on Martha's Vineyard; Gyrfalcon at Mt Tom (Mass.); a "wave" of passerines on April 26 brought many early records. 219 spp. are listed for April.
- PARKER, H. M. and R. P. EMERY (eds) 1953. Records of New England Birds. Mass. Aud. Soc. **9**: 89-124. Reddish Egret at Monomoy, Mass., on May 31; Glossy Ibis from Maine and Mass.; Black-headed Gull at Pittsfield, Mass., and many rare or uncommon passerines, included Painted Bunting in Brookline, Mass. 261 spp. are listed for May.
- PARKER, H. M. and R. P. EMERY (eds) 1953. Records of New England Birds. Mass. Aud. Soc. **9**: 125-156. Two Black-necked Stilts at Plum Id., June 5 are first record since 1860's in Mass. First breeding record of Least Tern in New Hampshire. Albino Ruby-throated Hummingbird in Maine. 248 spp. are recorded for June-July.
- PARKER, H. M. and R. P. EMERY (eds) 1953. Records of New England Birds. Mass. Aud. Soc. **9**: 185-216. Swainson's Hawk at Nauset, Mass.; Great Gray Owl at Munsungen Lake, Maine; a dozen reports of Arkansas Kingbirds and Lark Sparrows; and two Yellow-headed Blackbirds on Nantucket Id., Mass. 264 spp. are listed for August.
- PARKER, H. M. and R. P. EMERY (eds) 1953. Records of New England Birds. Mass. Aud. Soc. **9**: 217-244. Duck counts were generally low; many other spp. lingered in the mild October weather; a Purple Sandpiper in Pittsfield, Mass.; Red-bellied Woodpecker in Conn.; Summer Tanager, Blue Grosbeaks, and Lark Buntings in Mass. 266 spp. are listed.

- PARKER, H. M. and R. P. EMERY (eds) 1953. Records of New England Birds. Mass. Aud. Soc. 9: 245-268. A warm, stormy November produced many unusual late records. A Ruff at Nantucket Id., Mass., Nov. 28 and Black-headed Grosbeak at Tiverton, R. I., Nov. 15-21 were outstanding rarities. 223 spp. are listed.
- PARKER, H. M. and R. P. EMERY (eds) 1953. Records of New England Birds. Mass. Aud. Soc. 9: 269-292. Cattle Egret in Me.; Whistling Swans in Vt., and Black Gyrfalcon in Mass. highlighted a mild, open December. 195 spp. are listed.
- PARKES, K. C. 1954. Traill's Flycatcher in New York. Wilson Bull., 66: 89-92—Presenting evidence for the invasion into New York State of a more westerly race of *Empidonax traillii*.
- PARKES, K. C. 1954. The generic name of the Rice Grackle. Condor, 56: 229.
- PARKES, K. C. 1954. Correction of data reported on *Atlapetes brunnei-nucha*. Condor, 56: 231
- PEARSE, T. 1954. Further notes on Red-throated Loons nesting on Vancouver Island, British Columbia. Condor, 56: 308-309.
- PHELPS, W. H. 1953. El posible hundimiento parcial de la Isla de Aves. Bol. Acad. Ciencias Físicas, Matemáticas y Naturales, 50 (Mayo-Agosto): 1-34.—The possible partial sinking of Aves (Bird) Island, lat. 15° 42' N, long. 63° 38' W. In Spanish.
- PHELPS, W. H., and W. H. PHELPS, JR. 1954. Notes on Venezuelan birds and descriptions of six new subspecies. Proc. Biol. Soc. Wash., 67: 103-113.—*Otus aequatorialis venezuelanus*, *Xenops rutilans perijanus*, *Terenura callinota venezuelana*, *Platyrinchus mystaceus perijanus*, *Tyranniscus vilissimus tamae*, and *Coereba flaveola melanornis*, new subspecies. Notes on seven other species include the first record of *Calidris canutus* in Venezuela.
- PINTO, O. 1953. Sobre a Coleção Carlos Estevão de peles, ninhos e ovos das aves de Belém (Pará). Papéis Avulsos do Dept. Zool. Secretaria da Agricultura, S. Paulo, Brasil, 11: 113-224.—On Carlos Estevao's collection of skins, nests, and eggs of the birds of Belém (Pará). In Portuguese. An annotated list, illustrated with 16 plates showing photographs of nests of 17 species.
- PINTO, O. M. DE O., and E. A. DE CAMARGO. 1952. Nova contribuição a ornitologia do Rio das Mortes. Resultados da expedição conjunta do Instituto Butantan e Departamento de Zoologia. Papéis Avulsos do Dept. Zool. Secretaria da Agric., S. Paulo, Brasil, 10: 213-234.—New contribution to the ornithology of the Rio das Mortes. *Nyctiprogne leucopyga majuscula*, *Furnarius leucopus araguaiae*, *Schistochlamys ruficapillus sicki*, new subspecies. In Portuguese.
- PINTO, O. M. DE O., and E. A. DE CAMARGO. 1954. Resultados ornitológicos de uma expedição ao Território do Acre pelo Departamento de Zoologia. Papéis Avulsos do Dept. Zool., Secretaria da Agric., S. Paulo, Brasil, 11: 371-417.—Ornithological results of an expedition to the eastern part of the Territory of Acre. In Portuguese.
- QUIGLEY, R., JR. 1954. Unusual Black Phoebe nest. Condor, 56: 223.
- QUIGLEY, R., JR. 1954. Unusual Barn Owl nest location. Condor, 56: 315.
- RAND, A. L. 1954. On the spurs of birds' wings. Wilson Bull., 66: 127-134, 1 fig.—A survey of the species possessing wing spurs and knobs, their structure and probable function.
- RECHNITZER, A. B. 1954. Status of the Wood Ibis in San Diego County, California. Condor, 56: 309-310.

- RICHARDS, T. 1954. Our changing bird life. *N. H. Bird News*, 7 (1): 3-16. Population changes of many spp. are discussed in relation to hunting for home use, market hunting, land use, and introduction of foreign spp. during the period 1623-1900.
- RICHARDS, T. 1954. Christmas bird counts. *N. H. Bird News*, 7 (2): 20-26. New Hampshire counts including a 5-year comparison in the Laconia region.
- RICHARDSON, F. 1954. Report on the two native passerines of Nihoa, Hawaii. *Condor*, 56: 224.—*Psittirostra cantans* and *Acrocephalus familiaris*.
- SCHILLER, E. L. 1954. Studies on the helminth fauna of Alaska. XVIII. Cestode parasites in young Anseriformes on the Yukon delta nesting grounds. *Trans. Amer. Micros. Soc.*, 63 (2): 194-201, 7 figs.
- SINGH, K. S. 1954. Some trematodes collected in India. *Trans. Amer. Micros. Soc.*, 63 (2): 202-210, 1 pl. Includes description and discussion of 3 spp. from ducks.
- SMITH, H. W. 1954. Isolation from the lower respiratory tract of chickens of bacteria administered by mouth. *Nature*, 174 (4418): 45. *Salmonella gallinarum* was obtained from trachea and lungs when administered in the food, drinking water, or directly into the mouth.
- SOOTER, C. A. 1954. Franklin Gulls riding whirlwind and feeding. *Condor*, 56: 313.
- SOOTER, C. A., E. E. BENNINGTON, and L. B. DANIELS. 1954. Multiple use of Cliff Swallows' nests by bird species. *Condor*, 56: 309.
- SPALDING, D. A. 1954. Instinct, with original observations on young animals. *Brit. Journ. Anim. Behav.*, 2 (1): 2-11. (Reprinted from *Macmillan's Magazine*, Vol. 27, pp. 282-293, 1873.) An account and discussion of original experiments and observations on instinct in young animals, esp., chickens and turkeys. Blindfolds and hoods were placed over newly-hatched chicks. Several days later, the chicks, usually with the blindfold removed, were placed in various stimulus situations, i. e., placed 9 or 10 feet from a box in which a hen and her chicks were concealed. The relationship, mentioned on p. 7, between an 11-day-old turkey and a newly-hatched chick sounds very much like imprinting. This article could be profitably read by all those interested in avian behaviour.—J. Woodford.
- STILLWELL, J., and N. STILLWELL. 1954. Notes on the call of a Ferruginous Pigmy Owl [*Glaucidium brasilianum*]. *Wilson Bull.*, 66: 152.
- STORER, R. W. 1954. A hybrid between the Chipping [*Spizella passerina*] and Clay-colored [*S. pallida*] sparrows. *Wilson Bull.*, 66: 143-144.
- STORER, R. W. 1954. A fossil thrasher from the Pleistocene of Mexico. *Wilson Bull.*, 66: 144-145.
- SUTTON, G. M. 1954. Western Grebe in Oklahoma. *Condor*, 56: 229.
- SUTTON, G. M., and D. F. PARMELEE. 1954. Nesting of the Greenland Wheatear on Baffin Island. *Condor*, 56: 295-306.
- TABER W. 1954. Birds of the Waterville Valley Region. *N. H. Bird News* 7 (2): 3-7. Topography and general appearance followed by annotated list of 86 spp. seen by F. H. Allen (1894 and 1898) and author (1935-1938 and 1953).
- TALMADGE, R. R. 1954. Turkey Vulture wintering in northern California. *Condor*, 56: 227-228.
- TERRES, J. K. 1954. The care and feeding of wild birds. *N. H. Bird News* 7 (2): 11-12. Reprinted from *Audubon Magazine*. A basic food, supplements, and helpful hints.
- THORPE, W. H. 1954. Some concepts of Ethology. *Nature*, 174: 101-105.

- TWENTY, J. W., JR. 1954. Predation on bats by hawks and owls. *Wilson Bull.*, **66**: 135-136.—At bat caves.
- UDAGAWA, T. 1954. Karyogram studies in birds. III. The chromosomes of five forms of birds. *Annot. Zool. Jap.*, **27**: 91-96.—*Emberiza e. elegans*, *Acrocephalus arundinaceus orientalis*, *Ixobrychus s. sinensis*, *Larus crassirostris*, and *Gallinula chloropus indica*.
- UDAGAWA, T. 1954. The taxonomic position of the Hedge-Sparrow considered from the karyological characteristics. *Jap. Journ. Genetics*, **29**: 87-88.—Chromosomes of *Prunella r. rubida* compared with those of *Luscinia c. calliope*.
- UDVARDY, M. D. F. 1954. Summer movements of Black Swifts in relation to weather conditions. *Condor*, **56**: 261-267.—The summer occurrence of *Nephoceetes niger borealis* at Vancouver, B. C. is shown to be correlated with a low barometric pressure, a SE-E prevailing wind, and rain. The movement of this swift is believed by the author to be governed by the same mechanisms worked out for *Apus apus* in Europe, namely, the presence of insect-laden winds in the warm cyclonic area. The precise origin of the swift "swarms" is unknown, but they are believed to gather over a considerable area.—David W. Johnston.
- VAN DEN AKKER, J. B. 1954. A wintering concentration of eagles [*Haliaeetus leucocephalus* and *Aquila chrysaetos*] in Oklahoma. *Wilson Bull.*, **66**: 136.
- VAUGHAN, T. A. 1954. Diurnal foraging by the Great Horned Owl [*Bubo virginianus*]. *Wilson Bull.*, **66**: 148.
- VON HOLST, E. 1954. Relations between the Central Nervous System and the Peripheral Organs. *Brit. Journ. Anim. Behav.*, **2** (3): 89-94.
- WALLACE, V. 1954. The winter season. *N. H. Bird News*, **7** (2): 13-17. Compilation of winter records for the State.
- WALLACE, V. 1954. Spring migration records. *N. H. Bird News*, **7** (3): 18-31. List of spp. recorded in N. H. Feb.-April.
- WALLACE, V., and T. RICHARDS. 1954. Fall migration records. *N. H. Bird News*, **7** (1): 23-37. A list of fall spp. and summary. Two Cattle Egrets, a European Widgeon, and a Mockingbird as far north as Berlin were outstanding state records.
- WOLFSON, A. 1954. Body weight and fat deposition on captive White-throated Sparrows in relation to the mechanics of migration. *Wilson Bull.*, **66**: 112-118, 1 fig., 4 tables.—Migrating *Zonotrichia albicollis* varied in weight and fat deposition; these differences were correlated with each other and were thought to be correlated with the migratory behavior of the individuals: fat birds prepared for a flight and lean birds having completed a flight.—J. T. Tanner.
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