

RECENT LITERATURE

An Analysis of the Distribution of the Birds of California. Alden H. Miller. Univ. Calif. Publ. Zool., 50 (6): 531-644, 9 pls., 5 figs., 1951. \$1.50.—This analysis of bird distribution in California is treated from the point of view of life-zones, plant communities and physical habitats, and faunal groups. The point is emphasized that no one system is entirely satisfactory, but each expresses certain truths not brought out by the others.

Although the actual characteristic of temperature that is important may not be known, there is no doubt that easily recognizable belts of life occur on mountain slopes correlated with a temperature gradient. The author indicates that a weakness of the life-zone system lies in the correlation of zones on distant mountain slopes (p. 616) and extending the concept into a continent-wide plan (p. 532). In California, about one-fifth of the 260 non-marine species tabulated are confined to one zone, most species range over two or three zones, and a very few occur in four or more zones. The greatest differences between the zones occur between the Transition and Upper Sonoran and between the Transition and Canadian. Because of the considerable resemblance between the Canadian, Hudsonian, and Alpine-Arctic zones, it is proposed that only four major life-zones be recognized in the state, *viz.*, Lower Sonoran, Upper Sonoran, Transition, and Boreal.

Some 274 species are rated subjectively as to their preference for, or their maximum populations in, different "formations." The "formations" considered are not only plant formations in the strict sense but also plant associations and physical habitats and include desert scrub, sagebrush, chaparral, piñon-juniper woodland, oak woodland, riparian woodland, savanna, grassland, alpine meadow, coastal forest, montane forest, subalpine forest, inland cliffs, sea cliffs, seashore, fresh-water marsh, salt-water marsh, lacustrine waters, fluvial waters, marine littoral waters, and pelagic waters. The listing of bird species by plant communities and habitat and the evaluation of their degree of restriction to each is very welcome information to avian ecologists in other parts of the country. It is hoped that population-counts in the future will make possible both a more objective preference rating of the species and an indication of the order of abundance of the species in each community.

The reviewer misses the recognition of any forest-edge communities. In studying the lists of birds for the forest communities, he often wondered whether a species really belonged to the forest itself or belonged to seral shrub stages or forest-edges that were locally included. There is, however, a strong resemblance between the bird-fauna of the deciduous riparian woodland and the savanna with what the reviewer has called the deciduous forest-edge community in the east. Several wide-ranging species that are listed as inhabiting several vegetation units could logically also be assigned to a forest-edge animal community. A primary characterization of communities of this type is that their constituents make use of different adjacent types of vegetation for their various needs.

The impression gathered from studying this paper is that the author has found plant communities more useful than the life-zones for analyzing the bird distribution in the state because (p. 581) they are more finely differentiated (21 units compared with 4) and because the distribution of the community units reflects the influence of all climatic or environmental factors rather than temperature alone. However, it is stated that the distribution of some species seems more clearly defined by life-zones than by the smaller plant community and habitat units. The agreement between the distribution of particular species and particular life-zones appears to

be more frequent for the less common species and for species belonging to plant communities of restricted range.

The reviewer counts 54 species confined to a single life-zone. In checking these species against the lists for the plant communities, he finds 26 species also restricted to a single plant community, 24 species found in two communities, only three species in three communities, and only one species in as many as four communities. Furthermore, many of those species found in two communities occur in closely related ones, such as fresh-water and salt water marshes, montane and subalpine forests, desert scrub and riparian woodland, and other similar combinations where the plant composition or habitat differs somewhat but where there is some question whether two recognizably distinct *animal* communities actually exist.

The essential unity in the bird composition of the coastal, montane, and subalpine forests, mentioned by the author, is in harmony with the conclusions reached by Hayward (Great Basin Nat., 6: 1-124, 1945) for the Wasatch and Uinta mountains in Utah and by Snyder (Condor, 52: 17-27, 1950) for the Rocky Mountains in Colorado. Furthermore, there is considerable resemblance among these three geographical areas in the species composition of this single coniferous forest animal community. There is interest also in the close relationship between the birds of the piñon-juniper and oak woodlands, which plant ecologists list as associations in one formation and which probably also represents a single animal community in the biome system.

The author refers to his classification of plant communities and habitats as synonymous with the biome system (p. 540, 578, 616), but this is only partly true. He has listed a series of plant associations, plant formations, and physical habitats and then attempted to show how the distribution of animal species fitted into these plant communities. The biome system is also divisible into predominantly animal communities (Ecology, 29: 101-114, 1948) which are of more interest to the zoologist. Animal communities do not ordinarily correlate with plant communities determined by the *species* of the plant dominants involved, but they do correlate with types of vegetation. The affinities in bird composition between different plant communities brought out on page 578 well illustrate this point, for these different plant communities produce only different faciations of the same animal communities.

In an analysis of the data along another line, emphasis is placed on the recognition of faunal groups rather than biotic provinces. A faunal group is an aggregation of species having similar climatic and biotic tolerances, ranges, and places of origin. Each faunal group may be found in more than one life zone and in several plant communities. The present bird composition of California is composed of four such avifaunas. The boreal, Great Basin, and Sonoran avifaunas invaded the state mostly from the north or from boreal environments, from the east, and from the southeast, respectively. The California avifauna is largely endemic west of the main mountain axis. Only after these faunas are recognized and their relative prevalence in different parts of the state determined, is the state divided and mapped into faunal provinces, districts, and areas to show different degrees of differentiation. The geological history of the different avifaunas is discussed, especially as it bears on the evolution of new forms. This evolution is related to climate, and the interesting point is made (pp. 613-614) that "in a more restricted area such as California, and particularly in an area along a coastline, the hydrogradient is conspicuous and rather fully overshadows the effect of the temperature gradient except for the sharp temperature effects associated with mountain systems."

The author's stress on characterizing areas in terms of prevailing avifaunas is a different approach than the use of biotic provinces. Biotic provinces are intended

to reflect current distribution and centers of taxonomic differentiation, regardless of past histories of the faunas involved. Characterizing areas in terms of avifaunas is well worthwhile but requires a much larger body of factual information, as otherwise there will be considerable conjecturing about past origins and invasions and the analysis will not be entirely objective in its procedure.

This paper represents a job well done, especially in view of the great diversity of terrain and complexity of bird populations that are involved. The paper is of unusual interest in the way it brings out the relative merits and distinctiveness of three different distributional systems. The student of animal distribution will find a challenge here to try to do something similar for his own region.—S. CHARLES KENDEIGH.

A Guide to Bird Songs. (Rev. ed.) Aretas A. Saunders. (Doubleday Co., Garden City), xiv + 307 pp., 201 figs., 1951. \$3.00.—The first edition of this book (reviewed in 'The Auk,' 52: 205, 1935) has long been out of print. The present edition is a reprint of the original without revision, but with the addition of songs or calls of 37 species. Many bird students have received valuable aid from the first edition of this book, though others who would also like to be able to recognize bird songs have profited little or nothing from it. I believe the latter may be classed in two categories: those whose native musical talent is so slight as to preclude them from learning bird songs by any means whatsoever; and those with sufficient musical ability, but with the handicap of hoping perpetually to find "an easier way." Most of those in the latter group rationalize their evasion of the effort necessary to learn bird songs by claiming to be in the former category—lacking in talent, hence needing a very simple method of learning. What they do not know is that there is no easy way to learn bird songs, but that once thoroughly learned, identifications that formerly seemed impossible become easy. Not knowing this, and contrasting their own confusion with the expertness they see in those with long or intensive experience, they find no similarity in results and mistakenly conclude that there is no similarity in potential ability.

It is my present conviction, however, that anyone who can understand human speech, carry a tune fairly well after hearing it many times, and distinguish a human voice tone from a whistle can increase greatly his ability to identify bird songs by studying this book systematically for a few hours—not haphazardly for a few minutes, however. If he has made some effort to learn bird sounds in the field, I would venture to predict that several hours spent studying Saunders's book will profit him more than an equal number of hours trying to learn the songs from nature.

Mr. Saunders's system of notation is explained simply and clearly in a 15-page introductory chapter which must of course be read carefully before referring to the main text.

In anything so far advanced beyond the efforts of his predecessors as Mr. Saunders's system and his application of it, it is perhaps to be expected that his contemporaries might find what they consider to be minor defects in the system and occasional errors in its application. A few might be mentioned. Slurring in bird sounds, for example, is much more common than the graphs indicate and has considerable importance for identification. Also, the system of phonetics used contains some sounds which to my ear are not always approximated by the birds' voices; I cannot, for example, interpret the Greater Yellow-legs as saying in its flight call, 'wēē hī hāy' and 'wī hī hā hāy.' In a few of the songs, certain notes whose prominence results only from loudness or a more prominent position, such as at the beginning or end of a series, have been indicated in the graphs by longer horizontal lines, which are supposed to repre-

sent greater durations of time. Examples of this error may be found in the graphs of the songs of the Bay-breasted Warbler and in the grouped notes of the Black-billed Cuckoo and White-throated Sparrow. Each note in these groups should be shown to have about the same time value. Sometimes staccato or short notes are shown by such relatively long horizontal lines as to require the interpretation that they are legato or sustained (as in the flight calls of the Greater Yellow-legs). Diagnostic "grace" notes are sometimes omitted (as in graphs for the Indigo Bunting and Broad-winged Hawk).

The pitches of some of the songs are incorrect, as follows: the Crow and Fish Crow in reality call two octaves higher than indicated; the Mourning Dove, Barred Owl, Phoebe, the Black-capped Chickadee's '*Chickadee-dee-dee*' call, the first Redstart song, Red-tailed Hawk, Red-shouldered Hawk, Least Sandpiper, Semipalmated Sandpiper, Chuck-will's-widow, and Summer Tanager all sing or call one octave higher than indicated; and the Bay-breasted Warbler and Black-poll Warbler sing half an octave to an octave lower than is shown.

In some 20 or 30 of the accounts of species the choice of "typical" or common songs leaves much to be desired, as compared to the high standard set by the great majority of the accounts.

The key to bird songs is of unusual interest; it is perhaps of greater value for study as a systematic classification of bird songs than for use in attempting to "run down" any particular unknown song for the purpose of identifying it.

It will come as a shock to the reader with taxonomic bent that in the 1951 edition no changes have been made from the nomenclature of the 1935 edition. The newly added material, however, is mostly up-to-date.

The foregoing criticisms are minor as compared with the praise this book and its author deserve. It is by far the most satisfactory single source of written information on the identification of bird songs of the northeastern United States, and its contents should become familiar to every ambitious field student of bird identification.—
HAROLD H. AXTELL.

Fleas, Flukes, and Cuckoos. Miriam Rothschild and Theresa Clay. (Collins, London), pp. xiv + 304, 40 pls., 4 maps, 22 drawings, 1952. Price, 21s net.—The authors of this volume have performed an especial service through bringing more complete integration between the materials of two specialized aspects of zoology. Few ornithologists have an adequate understanding of the direct influence of parasites on birds and even fewer have appreciated the intimate correlation between evolution of birds and their parasites. Conversely, to many parasitologists birds are but incidental containers to hold parasites. Through a profound understanding of all sides of the problems of ecological and evolutionary relationships, Miss Rothschild and Miss Clay have brought together a wealth of interesting material in a well rounded treatment for students on both sides of the fence.

A rare literary leavening of frequent, undocumented quotations adds zest for the reader. The authors' powers of graphic description, narration, and unclouded definition join with homely comparisons to elevate the writing far above the usual textbook style. The numerous photographs, drawings, and micro-photographs add to the distinction of the volume.

It is impossible to actually "review" such a storehouse of facts, interpretations, and integrations, so only a few samples of characteristic findings will be presented here. The comparisons and contrasts between fleas (Aphaniptera) and feather lice (Mallophaga) of birds are especially well presented. Recalling the immediate professional interests of the two authors, this is not surprising. The origin of bird

fleas from those of mammals and the localization of bird lice on the host are particularly well presented, with especial emphasis upon the ecological adaptations between the lice and their hosts. The authors believe that the adaptations between birds and their lice probably have value in determining relationships of some of the hosts.

Taxonomists have commonly placed the ostriches and the rheas in separate orders in the belief that they are not closely related. As a reflection of relationship, the ostriches of Africa and the rheas of South America have closely related species of lice belonging to the same genus which occurs on no other birds. As another thought provoking problem of phylogeny, it is pointed out that flamingos harbor species of three genera of feather lice which occur elsewhere only on ducks, geese, and swans (Anseriformes) while the species of lice found on storks and herons (Ciconiiformes) never are found on either Anseriformes or on flamingos. This raises the question of whether phylogenetic relationships of the flamingos are more accurately traced through gross morphological likenesses or through the relationship of their parasites.

Throughout the text the varying degrees of host-parasite relationships and ecological interdependence are discussed in detail.—HARLEY J. VAN CLEAVE.

A Check-List of the Birds of Virginia. Joseph James Murray. (Virginia Soc. Ornith., Lexington, Va.), pp. 113, in wrappers, 1952. \$1.00.—Virginia is one of the fortunate states which include both seashore and mountains. Its bird students may observe in such varied habitats as coastal beaches and islands on the Eastern Shore, the sub-tropical Great Dismal Swamp, or the spruce-fir forests atop high Blue Ridge crests. To partake of these natural advantages, it has a strong and active bird group, the Virginia Society of Ornithology.

This check-list of Virginia birds is a cooperative venture of the Virginia Society, but its author and editor is Dr. J. J. Murray, generally recognized as the state's foremost bird authority. A founder of the Society, editor of its journal, 'The Raven,' and a long-time resident of the state, Dr. Murray has approached his task as scientist and pleasing writer. It is worth mentioning also that Dr. Murray has done notable missionary work in the ornithological field; most of the assistant ministers at his Lexington church have themselves become good bird students.

Included in the check-list are chapters on "Early Accounts of Virginia Birds," "Virginia Ornithology, 1800-1930," "The Virginia Society of Ornithology," "The Physical Features of Virginia," and "The Faunal Zones of Virginia." Like other workers in the Appalachians, Dr. Murray finds a modified life-zone concept more useful and meaningful in this region than is the newer biome concept. There is a valuable bibliography for the student of Virginia birds.

In the main body of the paper, 398 forms, plus two hybrids, are admitted as valid parts of the Virginia avifauna. In addition, there are 14 forms assigned hypothetical status. For each form treated there are concise notes on occurrence, breeding status, and distribution. As happens to other preparators of state lists, Dr. Murray is puzzled as to what to do with sight records. In these days of widespread travel and more concentrated observation, such records are bound to multiply. Dr. Murray has, very wisely as it appears to this reviewer, admitted certain unmistakable birds (the Brown Pelican as an example) on sight records only. In every case however he has followed a rule of admitting no bird which has not been seen by more than one competent observer, and on more than one occasion.

It is easy to obscure the value of such a work as this through petty criticisms. One could wish that proofreading had caught more of the typographical errors which are present. A map of the state, and an index, would have made the list more usable. Nevertheless, the present catalogue is a fine summarization of our present

knowledge of Virginia's avifauna. Dr. Murray and the Virginia Society of Ornithology are to be congratulated on its preparation and publication.

This reviewer trusts he may interject some of his own ideas as to the confusion in vernacular names without unduly reflecting on the Virginia check-list. In almost every new publication which appears we are witnessing some attempts to revise or displace common names which have had wide acceptance and long use. It is time, I believe, that we take a long look at the purpose of vernacular names.

In the more academic days of the science, ornithologists scorned common names, leaving them to the lay public. With the vast spread in bird interest, however, this country's ornithologists have taken to using common names in scientific meetings and including them in technical publications. This is as it should be, since the non-technical bird enthusiast can read journals and attend meetings with a reasonably good idea of what the scientist is talking about. The practice has improved communication and has helped to bridge the gulf between professionals and their much more numerous amateur brethren.

Recently, however, new, and widely varying, vernacular names are appearing in almost every new publication. Unless these names are quickly standardized, the reading public is going to be hopelessly confused. There is every reason to revise confusing names that have been applied to races, and this practice will have quick and enthusiastic reception, once it is understood. The Virginia check-list introduces many such changes, and with most of them I have no quarrel, although I must confess that "Mealy Common Redpoll" has a strange sound to my ear. Even this list is not consistent, however, since "Newfoundland Crossbill" and "Sitka Crossbill" are used without any reference (save in the scientific names) to the fact that these are races of the Red Crossbill.

Another tendency in nomenclature, which seems to me to have much less justification, is the attempt to make American vernacular names conform to those in use in England. If we stop to think about it, we all recognize that American and English common names (as is true in a larger sense of the variants in speech in the United States and Great Britain) have had parallel, rather than identical, developments. The name "Robin" in Great Britain means one bird; in the United States an entirely different one. But if the present tendency continues, we may expect that someone on this side of the Atlantic will propose seriously that we remove possible confusion by calling our familiar bird the American Rufous-breasted Thrush!

I doubt that the name "Hudsonian Whimbrel" will replace "Hudsonian Curlew" in this country, and I doubt the wisdom of introducing such a change. "Whimbrel" is a fine and meaningful name on misty English moors; it loses its connotations on a Virginia beach. As a good Anglophile, I still believe there is a place for our own names and usages.—MAURICE BROOKS.

American Wildlife and Plants.—Alexander C. Martin, Herbert S. Zim, and Arnold L. Nelson. (McGraw-Hill Book Co., Inc., New York), ix + 1-500, many drawings, maps, and graphs (unnumbered), 1951. \$7.50.—Following four introductory chapters (The Plant Roots of Wildlife, Farm Crops and Wildlife, Wildlife Food-habits Studies, and Interpreting the Data of this Book) the two major parts of this book are "Animals and Their Food" and "Plants Useful to Wildlife." In the first of these, birds are treated on 173 pages, mammals on 60, and fish, amphibians, and reptiles on 6. Data are presented graphically and clearly; most species accounts contain maps showing the breeding and wintering ranges within the United States, graphs showing the relative amounts of animal and vegetable food taken through the year, lists of plants used with relative importance and seasonal occur-

rence, and short sections on general habits and animal food. For species with wide ranges, separate lists of food items taken in different parts of the country are given; and for the Brant, the data are divided temporally to show the difference in food habits caused by the depletion of eel grass on the east coast about 1931. The order of species is more or less taxonomic (the Coot is listed among the waterfowl and the squirrels are divided among the "fur and game mammals" and the "small mammals"). The few references included are listed at the ends of species accounts.

In the section on plants useful to wildlife, most of the accounts are by genera with usually no species differences mentioned. The accounts include: distribution maps of the genera within the United States; short sections on habit, habitat, and usefulness; and lists of animals utilizing the plants. The lists are arranged to show the parts of the plants eaten, the geographic areas where they are used, and the extent of use.

The authors' aim was to make available in a form acceptable to diverse groups the vast amount of information on the use of plants as food for animals in this country. In doing so, they have based their work on the extensive files of the U. S. Fish and Wildlife Service and on studies made by state and local groups; their survey of the literature, however, has been far from complete. Wildlife technicians, sportsmen, naturalists, and home-owners who want to know what to plant in order to attract birds will all find this volume a storehouse of valuable information; the more serious student will still have to make his own search of the literature and examination of the original records from which this book was compiled.

It is unfortunate that more care could not have been taken in the details of preparation. The citation for Mrs. Nice's monograph on the Song Sparrow is incomplete and incorrect, and a figure of the Mantled Ground Squirrel illustrates the Western Chipmunk; one wonders if there may not be similar errors in food habits material.

A minor criticism is that this reviewer finds such words as Douglasfir, beeplants, burreds, spikerushes, and dropseedgrasses less easy to read than if hyphenated or not compounded; and further, the authors have not been consistent in their policy of compounding words, for we find mountainlaurel with mountain-mahoganies, wildcarrot, wildprivet, and wildbarleys with wild roses, wild cherries, and wild geraniums.

The small black and white illustrations of animals by Walter A. Weber and plants by John W. Brainerd are almost without exception excellent and the other illustrative material is of generally high caliber throughout. On the whole, the authors have succeeded well in presenting this mass of factual material in an attractive and useful manner to the audience for which it was intended.—ROBERT W. STORER.

The Bird: Its Life and Structure. Gertrud Hess. (translated from the German by Phyllis Barclay-Smith). (Herbert Jenkins Ltd., London), pp. ix + 15-244, 188 figs., tables, 1951.—In the foreword the author notes that, ". . . a general ornithology is given, which sums up and concentrates on what applies to all species." She has, I believe, accomplished the desired goal of presenting a "primer textbook" of ornithology. The professional ornithologist will at first be disturbed by the broad generalizations and by the perhaps slight attention paid to certain physiological aspects, but the aim of the author must be remembered.

For the beginner and for the amateur who wishes to extend a bit his horizons of information, the book is satisfactory and desirable. Additional material on the ecology and distribution of birds would have rounded out the scope of the presentation. In places where factual information is given it would have been less confusing, and

more accurate, to have given the full name of a bird rather than simply saying swift, hawk, sparrow, and duck. Examples used are chiefly of European birds, and the classification is that of Stresemann.—HARVEY I. FISHER.

Check-List of North American Birds North of the Mexican Border. J. E. Keays. (London Typesetting Co., London, Ontario, Canada), pp. 1-38, 1952. \$1.50.—The title page of this pamphlet notes "Condensed from the check-list of North American birds, fourth edition 1931. Being the official list of the American Ornithologists' Union." Lest any misunderstanding arise from this statement, it should be stated that this present list is not an "official list" of the A.O.U. which had nothing to do with its preparation.

The only information given is A.O.U. number and common and scientific names. Mr. Keays, the condenser and compiler, has used the A.O.U. numbers for the forms but has not incorporated the changes in status and nomenclature, or the additional forms, included in the various supplements published by the Check-list Committee of the A.O.U. The sequence has been modified to list the *numbers* consecutively, perhaps for ease in reference to them, but this does violence to the present "phylogenetic sequence." Further, families recognized in the 1931 A.O.U. list are indiscriminately mixed and confused. *Phalacrocorax* is listed as the *family* for the cormorants! Subfamily names are given as family names for spoonbills, ibises, and cranes! The family Falconidae is omitted. Many names are misspelled.

It is unfortunate that this list was published. It is inaccurate and out of date by 20 years.—HARVEY I. FISHER.

ALLEN, FRANCIS H. 1952. The song of the Alder Flycatcher. *Wilson Bull.*, **64** (2): 107-109, 1 fig.—Of *Empidonax traillii traillii*, with comments on the description of bird songs.

ALLEN, ROBERT W., AND MARGARET M. NICE. 1952. A study of the breeding biology of the Purple Martin (*Progne subis*). *Amer. Midl. Nat.*, **47** (3): 606-665, 9 figs., 12 tables.

ARMSTRONG, EDWARD A. 1952. The distraction displays of the Little Ringed Plover and territorial competition with the Ringed Plover. *Brit. Birds*, **45** (2): 55-59.—Altercations between pairs of *Charadrius dubius* and *C. hiaticula*.

ARNOLD, G. A., AND M. A. ARNOLD. 1952. The nesting of a pair of Blue Tits. *Brit. Birds*, **45** (5): 175-180.—A pair of color-banded *Parus caeruleus* was watched in a garden in Warwickshire. The average of 58 periods spent by the female on the nest while incubating was 59 minutes; the average of 81 periods off the nest was 7.5 minutes. Of 12 eggs laid, 10 hatched and 9 young were fledged. The female disappeared when the young were 11 days old; for 5 days the male fed as often as the two parents had done, bringing between 550 and 600 meals per day. On the 18th and 19th days his rate of feeding dropped markedly. During the afternoon of the last day he called the young out despite an impending storm and most of the fledglings must have perished that night.—Margaret M. Nice.

BAILEY, ROBERT E. 1952. The incubation patch of passerine birds. *Condor*, **54** (3): 121-136, 4 figs.—A field and laboratory study of the macroscopic and microscopic structure of the incubation patch in passerine birds representing 12 families. All have a single large patch located in and coincident in size with the ventral apterium. Formation of the structure involves four stages correlated with the phases of the nesting cycle, namely, the defeathering, vascularization, edematous and recovery stages. The incubation patch was produced in non-breeding birds by continuous treatment with the reproductive hormone estra-

- diol. If the birds were hypophysectomized, estradiol produced only vascularity, whereas if both estradiol and prolactin were administered, a complete patch developed. Neither prolactin nor testosterone alone, or in combination with other hormones, had any effect.—W. H. Behle.
- BALDINI, JAMES T., ROY E. ROBERTS, AND CHARLES M. KIRKPATRICK. 1952. Studies of the reproductive cycle of the Bobwhite Quail. *Journ. Wildl. Manag.*, **16** (1): 91-93.—Under continuous light, *Colinus virginianus* may attain sexual maturity at 139 days of age, may be polygamous, and may be made available at any age for research purposes throughout the year.
- BANNERMAN, DAVID, AND JANE PRIESTLEY. 1952. An ornithological journey in Morocco in 1951. *Ibis*, **94** (3): 406-433, map. (To be concluded.)
- BARTSCH, PAUL. 1952. A note on the first bird-banding in America. *Bird-Banding*, **23** (2): 59-60.—In 1902 the author banded 23 young Black-crowned Night Herons, *Nycticorax nycticorax hoactli*, near Washington, D. C.; in 1903, 78 were banded, and in 1910, 367. The bands were inscribed "Return to Smithsonian Institution" with the year and a serial number. From the first banding there was one return, from the second, 4 returns; from the third 12 returns, the most distant being: Sept. 17, 1910, Toronto; Dec. 7, 1910, St. Simons Island, Ga.; April, 1911, Cuba.
- BERCHER, WILLIAM J. 1952. The role of vision in the alighting of birds. *Science*, **115** (2996): 607, 608.—Birds flown blind-folded seemed to alight without regard to either wind velocity or direction. The author interprets the data obtained as indicating that birds alight by visual cues.
- BEHLE, W. H., AND R. K. SELANDER. 1952. New and additional records of Utah birds. *Wilson Bull.*, **64** (1): 26-32.—An annotated list of 36 species and subspecies.
- BERGER, ANDREW J. 1952. The comparative functional morphology of the pelvic appendage in three genera of Cuculidae. *Amer. Midl. Nat.*, **47** (3): 513-605, 7 tables, 4 charts, 29 pls.—An excellent study of variations in the muscles and bones, and their functional significance. The information is also applied to taxonomy where possible. (*Coccyzus*, *Crotophaga* *Geococcyx*.)
- BERGER, A. J., AND D. F. PARMELEE. 1952. The Alder Flycatcher in Washtenaw County, Michigan; breeding distribution and Cowbird parasitism. *Wilson Bull.*, **64** (1): 33-38, 1 fig., 1 table.—Descriptions of the nesting habitat and nest location of *Empidonax traillii* and notes on Cowbird parasitism.
- BERGSTROM, E. ALEXANDER. 1952. Extreme old age in terns. *Bird-Banding*, **23** (2): 72, 73.—A banded Arctic Tern, *Sterna paradisæa*, in Germany, killed at the age of 27 years. In North America a Caspian Tern, *Hydroprogne caspia imperator*, was "taken for a scientific specimen" at the age of 26 years. A Least Tern, *Sterna antillarum*, found dead, aged 21 years, at Cotuit, Mass. A Herring Gull, *Larus argentatus*, in Germany, reached almost 26 years.
- BOLDT, WILBUR, AND GEORGE O. HENDRICKSON. 1952. Mourning Dove production in North Dakota shelterbelts, 1950. *Journ. Wildl. Manag.*, **16** (2): 187-191.—About four pairs of *Zenaidura macroura* nested in each mile of five shelter belts studied (about one pair per three acres of shelter belt). A mean breeding population of 39 doves increased 162 per cent (in line with a Texas age ratio reported by Swank). Preferred nesting trees were Chinese elm, American elm, and Russian olive.—J. J. Hickey.
- BRACKBILL, HERVEY. 1952. Birds becoming "caught" in flocks of other species. *Wilson Bull.*, **64** (1): 44.—Small numbers of birds of one species have joined or

- been attracted into flocks of other species where they behaved as members of the flock.
- BRAUNER, JOSEPH. 1952. Reactions of Poor-wills to light and temperature. *Condor*, **54** (3): 152-159, 4 figs.—The onset and cessation of Poor-will activity at dusk and dawn coincides with a light intensity usually lower than one foot-candle. The limited duration of activity is related in length to phases of the moon and to weather. Cloacal temperatures of active Poor-wills range from 40.6° to 43.1° C. There is control of body temperatures at low environmental temperatures. Differences were noted between daily temperature curves of Poor-wills and nocturnal and diurnal birds. Several experiments with a captive bird failed to induce torpidity. A method of cooling by vibrating the throat is suggested. Poor-will chicks demonstrate semi-poikilothermy.—W. H. Behle.
- BRODKORB, PIERCE. 1952. The types of Lambrecht's fossil bird genera. *Condor*, **54** (3): 174, 175.—A listing of the types of 28 new genera erected by Lambrecht which were omitted from his "Handbuch der Palaeornithologie" (1933).
- BRODKORB, PIERCE. 1952. A new rail from the Pleistocene of Florida. *Wilson Bull.*, **64** (2): 80-82, 1 fig.—*Laterallus guti* new sp. (Pleistocene, near Reddick, Marion Co., Fla.).
- BROEKHUYSEN, G. J., AND G. RUDEBECK. 1951. Notes on the Cape Gannet. *Ostrich*, **22** (3): 132-138.—Observations on the Cape Gannet, *Morus capensis*. Five photographs.
- BURLEIGH, T. D., AND A. J. DUVAL. 1952. A new Ovenbird from the southeastern United States. *Wilson Bull.*, **64** (1): 39-42.—*Seiurus aurocapillus canivirens* new subsp. (Margret, Fannin County, Georgia). In addition, comments are made on other races of the species.
- CAMPBELL, W. D. 1952. Some observations on quail during the breeding season of 1951. *Brit. Birds*, **45** (5): 167-170.—In mid-June a small concentration of *Coturnix coturnix* bred in Berkshire. By the use of a call-pipe, observations were made on the calls of male and female.
- CARLETON, GEOFFREY. 1951. Warbler dates for Central Park. *Proc. Linn. Soc., N. Y.*, Nos. **58-62**: 73-74.
- CHAPIN, JAMES P. 1952. *Campethera cailliautii* and *permista* are conspecific. *Ibis*, **94** (3): 535, 536.
- CHISHOLM, A. H. 1952. Bird-insect nesting associations in Australia. *Ibis*, **94** (3): 395-405.
- CLANCEY, P. A. 1951. Notes on birds of the South African subcontinent. *Ann. Natal Mus.*, **12** (1): 137-151, 2 pls.—Great Spotted Eagle, *Aquila clanga*, recorded from Natal; the Mountain Buzzard, *Buteo oreophilus*, recorded from Natal; the South African population of the Great Spotted Cuckoo described as new, *Clamator glandarius choragium* (Hlobane, northern Natal); critical notes on the South African record of the Wheatear, *Oenanthe oenanthe*; a new race of pipit described from Zimbite, near Beira, Portuguese East Africa—*Anthus richardi spurium*; and notes on *Macronyx capensis colletti*, *Lamprocolius nitens*, *Ploceus ocularis*, *Coliuspasser ardens*, and *Granatina granatina*.
- CLANCEY, P. A. 1951. A new race of the Half-collared Kingfisher. *Ostrich*, **22** (3): 176-178.—*Alcedo semitorquata tephria*, new subspecies from Zimbite, near Beira, Portuguese East Africa.
- CLANCEY, P. A. 1952. A systematic account of the birds collected on the Natal Museum Expedition in the Lebombo Mountains and Tongaland, July, 1951. *Ann. Natal Mus.*, **12** (2): 227-274.—An annotated report on a collection of over

- 500 specimens obtained in a three weeks' survey of the little worked mountainous area of northeastern Zululand, where that country borders on Swaziland. Eight new races of birds are proposed, as follows: *Halcyon albiventris vociferans*, *Pogoniulus pusillus niethammeri*, *Pogoniulus bilineatus riparium*, *Andropadus importunus mentor*, *Thamnolaea cinnamomeiventris antiochthones*, *Camaroptera brachyura constans*, *Batis capensis hollidayi*, and *Anthus leucophrys enunciator*. In addition there are many critical comments on other forms, and much of interest relating to the distribution and characters of other birds.
- CLANCEY, P. A. 1952. Miscellaneous taxonomic notes on African birds. Durban Mus. Novit., 4 (1): 1-19. 2 figs.—*Prodotiscus regulus adustoides* (Pietermaritzburg, Natal, South Africa), *Jynx ruficollis striaticula* (Garstfontein, Pretoria, Transvaal), *Monticola explorator tenebriformis* (Ingwavuma, Lebombo Mts., NE Zululand), *Cossypha natalensis hylophona* (Chinteché, Nyasaland).
- CLANCEY, P. A. 1952. Geographical variation in the Ground Woodpecker *Geocolaptes olivaceus* (Gmelin), a unique South African avian endemism. Journ. Sci. Soc. Univ. Natal., 8: 3-8, 4 figs.—*Geocolaptes o. prometheus* (Woodbush, Zoutpansberg, northern Transvaal), *G. o. petrobates* (Malavaneng Valley, Maluti Mts., Basutoland), new subspecies.
- CLANCEY, P. A., AND C. S. HOLLIDAY. 1951. South African races of the Redwing Starling. Ostrich, 22 (3): 190, 191.
- CLARK, D. T. 1952. Three new dilepidid cestodes, *Dictymetra numenii* n. gen. n. sp.; *Dictymetra paranumenii* n. sp. and *Anomotaenia filovata* n. sp. Proc. Helm. Soc. Wash., 19 (1): 18-27.—From Nebraska shore birds.
- COHEN, EDWIN, AND BRUCE CAMPBELL. 1952. Nestboxes. British Trust Ornith., Field Guide No. 3: 1-32, 22 figs.—Types and designs of boxes successfully used in the British Isles.
- CUTHBERTSON, E. I., G. T. FOGGITT, AND M. A. BELL. 1952. A census of common sandpipers in the Sedbergh area, 1951. Brit. Birds, 45 (5): 171-175.—Thirty nests of *Actitis hypoleuca* were found along 14 miles of the river Lune and its tributaries from 1937 to 1951; in 24 of these the eggs hatched.
- DALE, FRED H. 1952. Sex ratios in pheasant research and management. Journ. Wildl. Manag., 16 (2): 156-163.—Sex ratios must be used in converting crowing-cock indices into population estimates, in interpreting hunting season kill as population estimates, in indexing production, and in interpreting age ratios as indices of productivity. The ratio of observed to actual sex ratio varies with the season and with methods of observation. Intensive studies on the technique of observing sex ratios are a major need in research on *Phasianus colchicus*.—J. J. Hickey.
- DEED, ROBERT F. 1952. Notes on the northward movement of certain species of birds into the Lower Hudson Valley. Proc. Linn. Soc. N. Y., Nos. 58-62: 63-66.—Tufted Titmouse (*Parus bicolor*), Cardinal (*Richmondia cardinalis*), and Turkey Vulture (*Cathartes aura*) have in the past 20 years become common in Rockland County, N. Y. Rapid increases in numbers have also been found for the Laughing Gull (*Larus atricilla*), Double-crested Cormorant (*Phalacrocorax auritus*), Little Blue Heron (*Florida caerulea*), American Egret (*Casmerodius albus*), and Snowy Egret (*Leucophoyx thula*).
- DEIGNAN, H. G. 1952. The earliest name of the Korean Tree Sparrow. Condor, 54 (3): 171.—The type locality of *Passer montanus orientalis* Clark, 1910, is restricted to Pusan, South Kyongsang Province, Korea. *P. m. dybowski* Domaniwski 1915 (Ussuriland and Korea) becomes its synonym.
- DEL TORO, MIGUEL A. 1952. New records of birds from Chiapas, Mexico. Condor, 54 (2): 112-114.—Annotated list of 18 additional species.

- DEXTER, RALPH W. 1952. Chimney Swift returns at Kent, Ohio, 1951. *Bird-Banding*, **23** (2): 73, 74.—Forty-five *Chaetura pelagica* returned in 1951; they had been banded from 1946 to 1950.
- EISENMANN, EUGENE. 1952. Copulatory behavior in the Least Tern. *Proc. Linn. Soc. N. Y.*, Nos. **58-62**: 71.—A male *Sterna albifrons* did not present fish to the female until copulation was effected.
- ELDER, W. H., AND C. M. KIRKPATRICK. 1952. Predator control in the light of recent wildlife management concepts. *Wilson Bull.*, **64** (2): 126-128.
- ELLIS, HAZEL R. 1952. Nesting behavior of a Purple-throated Fruit-crow. *Wilson Bull.*, **64** (2): 98-100.—Of *Querula purpurata* on Barro Colorado Island, Panama Canal Zone.
- ENGELS, WILLIAM L. 1952. Vertebrate fauna of North Carolina coastal islands. II. Shackleford Banks. *Amer. Midl. Nat.*, **47** (3): 702-742, 13 figs.—Breeding birds only, pp. 729-734.
- ERICKSON, JOHN G. 1952. Birds seen on a trip to Labrador. *Wilson Bull.*, **64** (2): 101-105, 1 table.—24 species observed along the coast in autumn.
- EVENDEN, FRED G., JR. 1952. Additional bird records for Nevada. *Condor*, **54** (3): 174.—Five species.
- EVENDEN, FRED G., JR. 1952. Notes on Mexican bird distribution. *Wilson Bull.*, **64** (2): 112, 113.
- FENNELL, CHESTER M. 1952. Some observations on the birds of southern Korea. *Condor*, **54** (2): 101-110.—Annotated list of 89 kinds, many represented by specimens.
- FISCHER, RICHARD B. 1952. Bird photography for bird banders. *Bird-Banding*, **23** (2): 63-72.
- FLEAY, DAVID. 1952. With a Wedge-tailed Eagle at the nest. *Emu*, **52** (1): 1-16, 4 pls.—Notes on plumage, sex differences, voice, nesting, care of young, and development—all obtained from a captive female and two foster young she raised.
- FLEMING, C. A. 1952. On the specific name of the Little Shearwater. *Emu*, **52** (1): 17-23.—Urges suppression of the name *Proc (ellaria) munda* Kuhl, 1820, and adoption of *Puffinus assimilis elegans* Giglioli and Salvadori for subantarctic race of Little Shearwater.
- FOX, WADE. 1952. Behavioral and evolutionary significance of the abnormal growth of beaks of birds. *Condor*, **54** (3): 160-162, 2 figs.
- FRINGS, HUBERT, AND WILLIAM A. BOYD. 1952. Evidence for olfactory discrimination by the Bobwhite Quail. *Amer. Midl. Nat.*, **48** (1): 181-184.—Caged Bobwhite apparently discriminated between two feeders by smell, and developed a preference for one.
- GLEGG, W. E. 1952. [Obituary of]. *Ibis*, **94** (3): 524, 525; photo.
- GOODWIN, DEREK. 1952. Notes and display of the Magpie. *Brit. Birds*, **45** (4): 113-122.—Description of eight notes and eight displays, illustrated with sketches, of *Pica pica*, largely from birds in captivity.
- GRAUSTEIN, JEANETTE E. 1951. Nuttall's travels into the old Northwest. An unpublished 1810 diary. *Chronica Botanica*, **14** (1-2): vii + 88, 5 figs., 10 pls. (Available at the Chronica Botanica Co., Waltham, Mass., for \$3.00).—Following a brief account of Nuttall's life, the diary is printed with numerous explanatory notes by Graustein. Although statements concerning birds are few, it is possible to gain a word picture of many aspects of the frontier at this time, and on page 81 is an index to the birds mentioned.

- GRAUSTEIN, JEANETTE E. 1952. Audubon and Nuttall. *Sci. Monthly*, **74** (2): 84-90.—An account of the friendship existing between these two men. This friendship has been slighted in past accounts of each man.
- GREGORY, JOSEPH T. 1952. The jaws of the Cretaceous toothed birds. *Ichthyornis* and *Hesperornis*. *Condor*, **54** (2): 73-88.—Detailed descriptions and illustrations are given and comparisons made with *Gavia*, *Archaeornis*, *Alligator* and *Platycarpus* (a mosasaur). *Hesperornis* shows convergence toward the aquatic reptilian mosasaurs but possesses definite avian characteristics. The jaw of *Ichthyornis* agrees with mosasaurs in minute details, and it is concluded that the toothed jaws attributed to *Ichthyornis* are not those of a bird but belong to a small mosasaur.—W. H. Behle.
- GRIZZELL, ROY A., JR. 1952. Selectivity of the mirror traps. *Journ. Wildl. Manag.*, **16** (1): 114, 115.—A plain trap caught 11 birds and 48 mammals; a mirror trap 57 birds and 48 mammals; in Maryland. Cardinals (*Richmondia cardinalis*) made up 47 of the catch.—J. J. Hickey.
- GROSSENHEIDER, RICHARD P. 1952. Little Penguin. *Wilson Bull.*, **64** (2): 66-68, 1 plate.—A brief description of the nesting habits of *Eudyptula minor*.
- GULLION, GORDON W. 1952. Sex and age determination in the American Coot. *Journ. Wildl. Manag.*, **16** (2): 191-197.—*Fulica americana* can be accurately sexed by voice, as is the case with *F. atra*. Only 86 per cent can be sexed by means of tarsal measurements. Legs of green, yellow-green, and yellow, respectively, denote birds in their first, second, and third or later years. The bursa of Fabricius cannot be used to distinguish between first- and second-year birds. The sex ratio was nearly even (52 per cent males) in a sample of 123, and ages were distributed 100 to 24 to 10 or 12 for the three groups mentioned above.—J. J. Hickey.
- GULLION, GORDON W. 1952. The displays and calls of the American Coot [*Fulica americana*]. *Wilson Bull.*, **64** (2): 83-97, 2 figs.
- HAUGEN, ARNOLD O. 1952. Trichomoniasis in Alabama Mourning Doves. *Journ. Wildl. Manag.*, **16** (2): 164-169.—*Zenaidura macroura* underwent a significant decrease in numbers in Alabama in 1950 due to *Trichomonas gallinae*, especially in June-August. Extreme loss of weight and failure to raise young were noted. This outbreak occurred close to the point where immense flocks of *Ectopistes migratorius* disappeared after the fall of 1881. In wondering if this disease was responsible for "the rapid disappearance" of the Passenger Pigeon, Haugen overlooks the fact that the continental population of pigeons declined rather gradually, and that big flights of this species were always locally erratic. That the pigeon died out from overshooting and overnetting is quite evident from a monographic study by A. W. Schorger which is still in manuscript. As the late Charles A. Urner once put it: no species laying a small clutch of eggs and migrating in dense flocks over long distances can long withstand the pressure of modern gunning. This is as true of shorebirds today as it was of Passenger Pigeons 75 years ago.—J. J. Hickey.
- HAVERSCHMIDT, FR. 1952. Notes on the life history of *Amazilia fimbriata* in Surinam. *Wilson Bull.*, **64** (2): 69-79, 2 figs., 3 tables.—Observations on the nesting and other habits of this hummingbird.
- HICKEY, JOSEPH J. 1951. Occurrence of European Teal on Long Island. *Proc. Linn. Soc. N. Y.*, Nos. **58-62**: 70-71.—Records of the frequent occurrence of *Anas crecca* began about the time this species was being sold to local aviarists; but the European Teals seen on Long Island seem to be fully migratory.

- HICKEY, JOSEPH J. 1952. Monthly distributions of Mallard hunting mortality. *Journ. Wildl. Manag.*, **16** (1): 32-38.—Regional, annual, and age differences are evident in the chronology of the kill. These would appear to be objective criteria in determining how weather modifies the effect of a given set of hunting regulations.
- HOPKINS, C. A., AND J. D. SMYTH. 1951. Notes on the morphology and life history of *Schistocephalus solidus* (Cestoda: Diphylobothriidae). *Parasitology*, **41** (4): 283-291.—This tapeworm becomes almost mature in the intermediate host (a Stickleback) and inhabits a fish-eating bird for only 36 hours.
- HOWELL, THOMAS R., AND GEORGE A. BARTHOLOMEW, JR. 1952. Experiments on the mating behavior of the Brewer Blackbird. *Condor*, **54** (3): 140-151, 4 figs.—Stuffed specimens of both sexes of *Euphagus cyanocephalus* were placed on the ground in the open near concentrations of the species on the U. C. L. A. campus, Los Angeles, California, from March 24 to June 2, 1951. The dummies were modified by the deletion and substitution of parts and by changes in posture. Results indicated that mating behavior depends not on one major factor but on combinations of such elements as form, posture, and color. To obtain a mating response from a male, wings on the dummy are not necessary. Either a head or a tail must be present, but one or the other may be removed without eliminating the response. If the tail is present, it should be at an angle above horizontal. Eye color is not important. Plumage color should be predominantly that of a female. Since the dummy is silent, no vocal response from a female is necessary to evoke the mating reaction of the male, nor is movement of the female necessary.—W. H. Behle.
- HULSBOS, KLAAS. 1952. A camera hunt for the Purple Heron [*Ardea purpurea*]. *Nat. Hist.*, **61** (5): 208-211, 240, 6 photos.
- HUTT, F. B. 1951. Snow-white down in the chick. *Journ. Heredity*, **42** (3): 117-120.
- HUTT, F. B. 1952. Lethal action of the gene for extension of black pigment in the fowl. *Genetics*, **36**: 213-234.
- INGALLS, ALBERT G. 1952. The amateur scientist. *Sci. American*, **186** (5): 86-88.—Popular account of the banding operations of John A. and Mabel Gillespie of Glen Olden, Pa.
- JOBIN, LEO. 1952. Some bird records from the Cariboo District, British Columbia. *Condor*, **54** (3): 171, 172.
- JOHRI, L. N. 1951. On avian cestodes of the family Dilepididae Fuhrmann 1907, collected in Burma. *Parasitology*, **41** (1): 11-14.—Two new species of *Eugonodaeum* (from a plover and an eagle) are described and two species of *Dilepis* are redescribed (from a snipe and a heron).
- JOLLIE, MALCOLM. 1952. Comments on the check-list of the birds of Idaho. *Condor*, **54** (3): 172, 173.—Inadequacies and corrections of the Arvey list (Univ. Kansas Publ., Mus. Nat. Hist., 1, 1947: 193-216) noted.
- JORDAN, JAMES S., AND FRANK C. BELLROSE. 1951. Lead poisoning in wild waterfowl. *Illinois Nat. Hist. Surv. Biol. Notes*, No. **26**: 1-27, 18 figs.—This constitutes a preliminary report of the results obtained through a cooperative study. Lead poisoning, as studied here, results only from the presence of lead in the digestive tract. Breakdown of the lead pellets and formation of various lead compounds damages the liver, kidneys, and muscles of the digestive tract. The symptomology, occurrence, mortality, and influence of diet on this poisoning are discussed on the basis of field and experimental observations. Some suggestions are made as to ways of alleviating the effects.

- KAGAN, I. G. 1952. Further contributions to the life history of *Neoleucochloridium problematicum* (Magath, 1920) new comb. (Trematoda: Brachylaemidae). Trans. Amer. Micro. Soc., **71** (1): 20-44.—Biology in the intermediate host, a snail; final hosts are gallinules and rails.
- KELSO, LEON. 1952. Some fundamentals of the feather. Biol. Leaflet, No. **58**: 1-8.—This brief review of some chemical and physical phenomena suggested as occurring on and in the feathers of birds is very thought-provoking. It points up the meager information available on these matters and should be a stimulus for detailed, controlled investigations.
- KELSO, LEON. 1952. Gas conversion by the feather. Biol. Leaflet No. **58A**: 1.
- KIMBALL, JAMES W. 1951. Game conservation and ecology. Sci. Monthly, **73** (6): 353-355.—Comments on the need for better basic ecological knowledge in waterfowl management.
- KIRKPATRICK, CHARLES M., DONALD E. STULLKEN, AND JAMES T. BALDINI. 1952. Effect of simulated gunshot injuries on reproduction of game farm Bobwhites. Journ. Wildl. Manag., **16** (1): 54-58.—Nonlethal gunshot wounds did not affect onset of laying, clutch size, fertility, or hatchability in *Colinus virginianus*.
- KOZICEK, EDWARD L., AND HENRY G. WESTON, JR. 1952. A marking technique for Ring-necked Pheasants. Journ. Wildl. Manag., **16** (2): 223.—Tails of *Phasianus colchicus* were shortened by scissors, given a coat of DuPont Duco Household Cement, and then painted. These were subsequently distinguishable up to 400 yards.
- LAUGHLIN, ROBERT M. 1952. A nesting of the Double-toothed Kite in Panama. Condor, **54** (3): 137-139.—Observations made at Barro Colorado Island, Panama, in June, 1951, of an unsuccessful nesting of *Harpagus bidentatus*.
- LAWRENCE, C. C. 1952. Notes on the Golden Whistler (*Pachycephala pectoralis*) in Tasmania. Emu, **52** (1): 25-31, 2 pls.—Natural history notes.
- LEVI, HERBERT W. 1952. Evaluation of wildlife importations. Sci. Monthly, **74** (6): 315-322.—A criticism of stocking policies for exotics.
- LEVINE, N. D., P. D. BEAMER, AND E. McNEIL. 1952. *Hexamita* (Protozoa: Mastigophora) from the Golden Pheasant. Journ. Parasit., **38** (1): 90.—Pathogenic.
- LOVELL, HARVEY B. 1952. Black Vulture depredations at Kentucky Woodlands. Wilson Bull., **64** (1): 48, 49.—*Coragyps atratus* killing young pigs.
- LUNK, WILLIAM A. 1952. Notes on variation in the Carolina Chickadee. Wilson Bull., **64** (1): 7-21, 4 figs., 2 tables.—From a study of *Parus carolinensis* over its entire range were found a cline of increasing size from south to north and one of increasing brownness from east to west. The known range of the species is extended to the northwest. Detailed measurements are given and comparisons are made with *P. atricapillus*. A new race is described, *P. c. atricapilloides* (Arnett, Ellis Co., Oklahoma).—J. T. Tanner.
- MANUEL, CANUTO G., AND E. THOMAS GILLIARD. 1952. Undescribed and newly recorded Philippine birds. Amer. Mus. Novit., No. **1545**: 1-9, 4 tables.—*Accipiter trivirgatus castroi* (Anibawan, Polillo), *Otus bakkamoena batanensis* (Basco, Batan Island), new subspecies. *Dicaeum rubricapilla* (Mt. Kampalili; Davao, Mindanao) new species.
- MARLER, P. 1952. Variation in the song of the Chaffinch, *Fringilla coelebs*. Ibis, **94** (3): 458-472, 2 figs., 6 tables.
- MAYR, E. 1952. *Turdus musicus* Linnaeus. Ibis, **94** (3): 532-534.

- MEANLEY, BROOKE. 1952. Notes on the ecology of the Short-billed Marsh Wren in the Lower Arkansas rice fields. *Wilson Bull.*, **64** (1): 22-25.—Individuals of *Cistothorus platensis stellaris* appeared in the rice fields in July when the rice was tall enough to provide cover, and they nested there in August and into September. The environment, nesting density and effects on the nests of harvesting of the rice are described. These observations extend southward the known nesting range of this species.
- MEANLEY, BROOKE. 1952. Notes on nesting Trail's Flycatcher [*Empidonax traillii*] in eastern Arkansas. *Wilson Bull.*, **64** (2): 111-112.
- MILLER, A. W., AND RUSSELL HENRY. 1952. Mechanical aids for bird banding. *Calif. Fish and Game*, **38** (1): 43-51.—"Horseshoe-type" lock-ring pliers, telephone pliers, and slip-joint pliers were modified into a series of band spreaders and found to be very useful.
- MILLER, LOYE. 1952. Auditory recognition of predators. *Condor*, **54** (2): 89-92.—Detailed results of field experiments with birds whereby calls of owls of the genera *Bubo*, *Strix*, *Otus*, and *Glaucidium* were imitated. These indicate that the ear is of great importance in predator recognition by birds.—W. H. Behle.
- MILLER, LOYE. 1952. Songs of the Western Meadowlark [*Sturnella neglecta*]. *Wilson Bull.*, **64** (2): 106-107, 1 fig.
- MOHLER, LEVI L. 1952. Fall and winter habits of Prairie Chickens in southwest Nebraska. *Journ. Wildl. Manag.*, **16** (1): 9-23.—Flocks of *Tympanuchus cupido* increased in size during the fall and possessed home ranges of about 20,000 or more acres. Cornfields were used most (37 times) for feeding, sorghum shocks next (21), rye stubble (4), and sudan grass (4). Feeding periods lasted about 82 minutes. Dense native grasses were preferred roosting cover, night roosts being one-eighth to three-quarters mile from feeding places. Flushing distances increased from about 23 yards in September to 58 in December.—J. J. Hickey.
- MOREAU, R. E. 1952. Africa since the Mesozoic: with particular reference to certain biological problems. *Proc. Zool. Soc. London*, **121** (4): 869-913, 1 fig., 3 tables.—After critical review of the Tertiary geology and climate, the author finds no evidence for major change in the climate or fauna after the Miocene and believes the equator remained in its present position throughout the Tertiary. The avifaunas of the lowland evergreen, the montane evergreen, and the savanna are quite different and must have evolved in isolation from each other. The affinities of the bird life with the avifaunas of Europe and Asia are discussed.
- MURIE, OLAUS J. 1952. Additional records of *Cuculus* in North America. *Condor*, **54** (2): 114.—Two specimens, one from St. Lawrence Island, the other from Rat Island in the Aleutian Islands.
- MURPHY, ROBERT C. 1951. The impact of man upon nature in New Zealand. *Proc. Amer. Philos. Soc.*, **95** (6): 569-582, 21 figs.
- OLSEN, O. W. 1952. *Avioserpens bifidis*, a new species of nematode (Dracunculidae) from ducks. *Trans. Amer. Micro. Soc.*, **71** (2): 150-153.—Apparently pathogenic; in tongue of Barrow's Golden-eye.
- OSSOWSKI, L. L. J. 1952. The Hadedah Ibis, *Hagedashia hagedash hagedash* (Latham) and its relation to pest control in wattle plantations. *Annals Natal Mus.*, **12** (2): 279-290.—Results of a study of the nesting, roosting, and feeding habits of this ibis, frequently found in and near wattle groves, indicate that the species is definitely beneficial to the planter, as 71.7 % of the insects it eats are species said to be harmful to wattles, and a further 24.6 % could be classified as possibly harmful. The ibises are large birds and voracious feeders, and consume great quanti-

- ties of the pests. As many as 275 specimens of the latter were found in the alimentary tract of one ibis.
- PARRINDER, E. R. 1952. The Little Ringed Plover in Great Britain in 1950. *Brit. Birds*, **45** (2): 61-64.—For the seventh year in succession *Charadrius dubius* bred in England; 20 pairs were known to have nested, while 8 others may have done so.
- PATTEN, J. A. 1952. The life cycle of *Conspicuum icteridorum* Denton and Byrd 1951 (Trematoda: Dicrocoeliidae). *Journ. Parasit.*, **38** (2): 165-182.—The first intermediate host is a land snail; second intermediate hosts are pill bugs and sow bugs; final host is the Purple Grackle.
- PEARSE, THEOD. 1952. Notes on the occurrence and behavior of the Stilt Sandpiper in Vancouver Island. *Condor*, **54** (2): 111-112.—Eleven records through several years suggest that the species is a regular migrant along the inner shoreline in the late summer.
- PETRIDES, GEORGE A., AND RALPH B. NESTLER. 1952. Further notes on age determination in juvenile Bobwhite Quails. *Journ. Wildl. Manag.*, **16** (1): 109-110.—Added data on the average ages of various stages of postjuvenile wing molt in *Colinus virginianus*.
- PHELPS, WILLIAM H., AND WILLIAM H. PHELPS, JR. 1952. Nine new subspecies of birds from Venezuela. *Proc. Biol. Soc. Wash.*, **65**: 39-54.—*Crypturellus undulatus manapiare* (San Juan de Manapiare, Río Manapiare, Terr. Amazonas), *Lurocalis semitorquatus schaeferi* (Rancho Grande, Estado Aragua), *Nyctiprogne leucopyga pallida* (San Fernando do Apure, Estado Apure), *Phaethornis longuemareus imatacae* (Cerro Tomasote, El Palmer, Estado Bolivar), *Colibri coruscans rostratus* (Cerro Huachamacare, Rio Cunucunuma, Terr. Amazonas), *Xiphorhynchus picus deltaus* (Misión Araguaimujo, Terr. Delta Amacuro), *Glyphorhynchus spirurus amacurensis* (Jobure, Río Jobure, Terr. Delta Amacuro), *Myrmotherula behni camanii* (Cerro Camani, Terr. Amazonas), and *Pipromorpha oleaginea dorsalis* (Cerro Roraima, Gran Sabana, Estado Bolivar).
- PHILLIPS, ALLAN R., AND DEAN AMADON. 1952. Some birds of northwestern Sonora, Mexico. *Condor*, **54** (3): 163-168.—Sixty-two species accounts.
- PRESTON, F. W. 1952. Harrying the herons by gulls—a further note. *Wilson Bull.*, **64** (1): 45-46.—Includes notes on behavior of other species towards herons.
- PRESTWICH, ARTHUR A. 1952. Records of parrots bred in captivity, Part V. (Lovebirds and broadtails). (A. A. Prestwich, London), pp. 181-290.
- RAND, A. L. 1951. Geographical variation in the Pearl-spotted Owllet, *Glaucidium perlatum* (Vieillot). *Nat. Hist. Misc.*, No. **86**: 1-6.—Recognizes three races.
- RAND, A. L., AND R. M. RAND. 1952. Closely associated nests of Bronzed Grackle and English Sparrow. *Wilson Bull.*, **64** (2): 105, 106.—A nest of *Quiscalus quiscula* on top of a nest of *Passer domesticus*. Included are remarks on several examples of the tolerance of different species at the nest.
- RAND, A. L., AND D. S. RABOR. 1952. Two new birds from Philippine Islands. *Nat. Hist. Misc.*, No. **100**: 1-3.—*Stachyris nigrorum* (Cuernos de Negros, Negros Oriental, Negros Island), new species, and *Harpactes ardens luzoniensis* (Dinampun, Bataan Prov., Luzon Island), new subspecies.
- RAND, A. L., AND D. S. RABOR. 1952. Notes on Philippine birds. *Nat. Hist. Misc.*, No. **107**: 1-5.—Discusses *Phapitreron* and *Phylloscopus*. *Phylloscopus olivaceus luzoniensis* (Massiat, Abra Prov., Luzon Island), new subspecies.
- RAND, R. W. 1952. The birds of Hollamsbird Island, South West Africa. *Ibis*, **94** (3): 452-457.

- ROOT, OSCAR M. 1952. Clay-colored Sparrow in Massachusetts. *Wilson Bull.*, **64** (2): 110, 111.—A summary of the records of *Spizella pallida* in this state.
- ROWAN, MRS. M. K. 1951. The breeding of the Yellow-nosed Albatross: Tristan da Cunha. *Ostrich*, **22** (3): 139-155.—Detailed life history. Six photographs.
- DE SCHAUNSEE, RODOLPHE M. 1952. Columbian Zoological Survey. Part X. A collection of birds from southeastern Nariño, Colombia. *Proc. Acad. Nat. Sci. Phila.*, **104**: 1-33, 1 col. pl.—Based on more than 1000 specimens of 294 species collected at elevations above 10,000 feet, it emphasizes the presence to the south of many species previously known only to the north of Bogotá. *Piculus rubiginosus michaelis* (Rio San Miguel, se Nariño), *P. r. palmitae* (La Palmita, Magdalena), *Masius chrysopterus pax* (Cerro Pax, east slope of Andes, near Nariño) new subspecies, and *Phlegopsis barringeri* (Rio Rumiyo, se Nariño) new species.
- SCHILLER, E. L. 1952. Studies on the helminth fauna of Alaska. III.—*Hymenolepis kenaiensis* n. sp., a cestode from the Greater Scaup (*Aythya marila nearctica*) with remarks on endemicity. *Trans. Amer. Micro. Soc.*, **71** (2): 146-149.
- SCHILLER, E. L. 1952. Studies on the helminth fauna of Alaska. IX.—The cestode parasites of the White-fronted Goose (*Anser albifrons*) with the description of *Hymenolepis barrowensis* n. sp. *Journ. Parasit.*, **38** (1): 32-34.
- SCHORGER, A. W. 1952. Ducks killed during a storm at Hot Springs, South Dakota. *Wilson Bull.*, **64** (2): 113-114.
- SCHWILLING, MARVIN D. 1952. Breeding status of the White-necked Raven [*Corvus cryptoleucus*] in Kansas. *Wilson Bull.*, **64** (2): 114-115.
- SERGEANT, D. E. 1952. Little Auks in Britain, 1948 to 1951. *Brit. Birds*, **45** (4): 122-133.—In the winters of 1948-49 and 1949-50 Dovekies, *Alle alle*, were present in large numbers in British waters, south of their normal range; in February, 1950, many were blown into Ireland, Great Britain, and northern France. Similar "wrecks" of Dovekies occurred in 1932 and 1936 on our side of the Atlantic. Such birds are usually emaciated, perhaps from lack of rich planktonic food in the colder waters of their normal range.—Margaret M. Nice.
- SERVENTY, D. L. 1952. The bird islands of the Sahul Shelf [Australia]. *Emu*, **52** (1): 33-59, 1 map, 3 pls.—Descriptions of islands, and populations of birds on each, with seasons of nesting for each species. The problems of conservation and guano-deposition are touched briefly.
- SERVENTY, D. L., AND H. M. WHITTELL. 1952. The correct name of the Crested Penguin. *Emu*, **52** (1): 63-64.—Urge use of *Aptenodytes chrysocome* Forster, 1781.
- SKEAD, C. J. 1951. Cuckoo studies on a S. African farm (Part 1). *Ostrich*, **22** (3): 163-175.
- SKEAD, C. J. 1952. A study of the Black Crow, *Corvus capensis*. *Ibis*, **94** (3): 434-451.—Life history.
- SKUTCH, ALEXANDER F. 1952. Life history of the Chestnut-tailed Automolus. *Condor*, **54** (2): 93-100.—Observations on this member of the ovenbird family were made in the basin of El General on the Pacific side of southern Costa Rica. Description of habits, food, nests, eggs, incubation and nestings.
- SMITH, J. DONALD. 1952. The Hawaiian Goose (Nene) restoration program. *Journ. Wildl. Manag.*, **16** (1): 1-9.—*Branta sandwichensis* is now reduced to an estimated 30 birds in the wild state. Three projects are underway to raise others from 24 birds now in captivity. An intensive ecological study of the Nene in the wild is needed before any further restocking is attempted. Here surely is one of the most pressing research projects in ornithology today.—J. J. Hickey.
- SMITHERS, R. H. N. 1951. Some interesting Rhodesian records. *Ostrich*, **22** (3): 156-162.

- SNOW, D. W. 1952. A contribution to the ornithology of North-west Africa. *Ibis*, **94** (3): 473-498, 2 figs., 2 tables.—Species accounts.
- SPRUNT, ALEXANDER, JR. 1951. A list of the birds of the Dry Tortugas Keys 1857-1951. (Florida Audubon Soc.), pp. 1-27, 5 photos. Price, \$0.50.—Review of all records in literature and presentation of fall records made by author September 2 to 9, 1949.
- STALLCUP, WILLIAM B. 1952. The status of Barrow's Golden-eye [*Bucephala islandica*] in Kansas. *Wilson Bull.*, **64** (1): 43-44.
- STEVENS, O. A. 1952. Bird banding and its educational values. *Sci. Monthly*, **74** (3): 180-183.—Observations on bird banding: its history, outstanding contributions to ornithological knowledge, the role of banders as teachers, and the need for cooperation between banders and those who may be able to suggest projects likely to yield fruitful results.
- STEWART, ROBERT E., *et al.* 1952. Seasonal distribution of bird populations at the Patuxent Research Refuge. *Amer. Midl. Nat.*, **47** (2): 257-363, 8 figs., 3 tables.
- STORER, JOHN H. 1952. Bird aerodynamics. *Sci. American*, **186** (4): 24-29.—An account of how the primaries of the wings of a bird function as does the propeller of an airplane, and how the proximal parts of the bird's wings serve as the wings of a plane.
- STRESEMANN, ERWIN. 1952. On the birds collected by Pierre Poivre in Canton, Manila, India and Madagascar (1751-1756). *Ibis*, **94** (3): 499-523.—Historical, type localities, taxonomic significance.
- SUMMERS-SMITH, D. 1952. Breeding biology of the Spotted Flycatcher. *Brit. Birds*, **45** (5): 153-167.—Based on records of 548 nests of *Muscicapa striata*. Average clutch-size in southern England and Wales was about 4.2, in northern England and Scotland, 4.4. Incubation averaged 13.2 days and fledging 13.4. Nesting success was high—63 %. The birds build in protected places, against walls, in ivy, in holes in trees, in nest boxes and in nests of other species.—Margaret M. Nice.
- SUTTON, GEORGE M. 1952. The Flint-billed Woodpecker. *Wilson Bull.*, **64** (1): 4-6, 1 col. pl.—A general description of *Phloeocoastes guatemalensis* and its habits.
- SWANBERG, P. O. 1952. Studies of some species rarely photographed. XXXVI. The Nutcracker. *Brit. Birds*, **45** (2): 60-61.—11 photographs of *Nucifraga c. caryocatactes* in Sweden, at the nest, in flight, and feeding.
- SWANK, WENDELL G. 1952. Trapping and marking of adult nesting doves. *Journ. Wildl. Manag.*, **16** (1): 87-90.—A two-door trap placed over the nest gave best results with *Zenaidura macroura* when the young were four to eight days old. White and yellow were the only satisfactory paints, and large feathers on the wings and tail were the best surfaces for marking.
- TRAYLOR, MELVIN A., JR. 1952. Notes on birds from the Marcapata Valley, Cuzco, Peru. *Fieldiana-Zool.*, **34** (3): 17-23.
- TRAYLOR, MELVIN A., JR. 1952. A new race of *Otus ingens* (Salvin) from Colombia. *Nat. Hist. Misc.*, No. **99**: 1-3.—*O. i. colombianus* (El Bambo, Cauca).
- UHLIG, HANS G., AND R. WAYNE BAILEY. 1952. Factors influencing the distribution and abundance of the Wild Turkey in West Virginia. *Journ. Wildl. Manag.*, **16** (1): 24-32.—A 1949-50 census revealed 6,851 *Meleagris gallopavo*, a 14 per cent increase in five years. Fall populations probably never exceed one turkey per 125 acres in this state; one winter area carried one per 171 acres of forest land. Reported hunting kill took 6 per cent in 1944, and 11.6 in 1949. Kill and mast conditions correlate with May minimum temperatures.—J. J. Hickey.

- VAURIE, CHARLES. 1951. A new species of flycatcher from Mindanao, Philippine Islands. Amer. Mus. Novit., No. 1543: 1-4.—*Muscicapa crypta* from 3000 ft., Mt. McKinley, Mt. Apo Range, Davao.
- VERHEYEN, RENÉ. 1951. Description de trois Oiseaux nouveaux du Katanga (Congo belge). Bull. Inst. royal Sci. nat. de Belgique, 27 (50): 1-2.—*Nicator chloris katangensis* (Muno River, affluent of the Lufira, 890 meters, Katanga), *Pyrticus turdinus upembæ* (Kabwe, on the Muye, affluent of the Lufira, 1400 meters, Upemba National Park, Katanga), and *Urocolius indicus lualabæ* (Mulumbu, Kazadi, Lualaba district), new subspecies.
- VILLIERS, A. 1950. Contribution a l'Étude de l'Air. Oiseaux. Mem. de l'Inst. Franc. d'Afrique Noire, No. 10: 345-385.—An annotated list of the recorded avifauna of this mountain mass in the central, western Sahara, first made known by the explorations of Angus Buchanan for the Tring Museum some 30 years ago.
- VINCENT, JACK. 1951. The description of a new race of Richard's Pipit, *Anthus richardi* Vieillot from Basutoland. Ann. Natal Mus., 12 (1): 135-136.—*Anthus richardi editus*, new subspecies from the high mountain areas of eastern Basutoland; type from Sanqubetu River, 8000 ft.
- WILLIAMSON, KENNETH (editor). 1952. Fair Isle Bird Observatory Trust. Ann. Rept. 1951, pp. 1-48.—Data on banding, banding returns, bird weights, migration, and ectoparasites.
- WOLFSON, ALBERT. 1952. Day length, migration, and breeding cycles in birds. Sci. Monthly, 74 (4): 191-200.—The role of summation of day lengths in the annual cycle of activities of birds is discussed. It is stated that summation of day lengths can explain the spring migratory behavior in migrants wintering at the equator, or in the Southern Hemisphere, and the regulation of breeding cycles in the tropics—two critical weaknesses of previous theories.
- WOOD, HAROLD B. 1952. Homing ability of female Cowbirds. Wilson Bull., 64 (1): 46, 47.—Six records of females of *Molothrus ater* being transported from six to 100 miles and then returning.
- YOCOM, CHARLES F. 1952. Columbian Sharp-tailed Grouse (*Pedioecetes phasianellus columbianus*) in the state of Washington. Amer. Midl. Nat., 48 (1): 185-192, 3 figs.—History and present status by counties.
- ZIMMER, JOHN T. 1952. Ornithology.—A new finch from northern Perú. Journ. Wash. Acad. Sci., 42 (3): 103-104.—*Incaospiza ortizi* (near La Esperanza, Dept. Cajamarca), new species.
- ZIMMER, JOHN T. 1952. A new subspecies of pipit from Argentina and Paraguay. Proc. Biol. Soc. Wash., 65: 31-34.—*Anthus chii chacoensis* (Avia Terai, Gobernación de Chaco).
- ZIMMER, JOHN T., AND WILLIAM H. PHELPS. 1952. New birds from Venezuela. Amer. Mus. Novit., No. 1544: 1-7, 1 fig., 1 table.—*Chaetura spinicauda latirostris* (Jobure, Río Jobure, Terr. Delta Amacuro), *Chlorostilbon mellisuga duidae* (Mt. Duida, Terr. Amazonas), and *Elaenia dayi auyan-tepui* (Mt. Auyan-tepui, State of Bolívar) new subspecies.