

ORNITHOLOGICAL LITERATURE

BIRDS AS ANIMALS. By James Fisher, with a foreword by Julian Huxley. Heine-
mann, London & Toronto, 1939: 6 x 9 in., 281 pp. 12s 6d.

This is an ambitious book, as will be seen from the chapter headings, all of which start with "Bird" and deal with the following topics: historians, history, adaptation and habitat selection, variation and distribution, environment, habitat, numbers, migration, colours and display, territory, and reproduction with a final chapter on "Birds and Man." There are six or seven hundred references (802 are listed, but some are repeated a number of times) and an index of species, but unfortunately no index of subjects.

The book is written chiefly for the amateurs in the British Isles who are doing such fine work in field ornithology; it will prove helpful to other students also in providing background and in summarizing the progress made in many fields, particularly in ecological relationships. On the whole Mr. Fisher has succeeded admirably with his ambitious task.

There are a number of typographical errors as well as some errors of fact. The author states, "In most ordinary waders the female broods and cares for the young" (p. 192), whereas in many cases these tasks are shared by the parents or undertaken by the male alone. He voices the popular opinion when he says, "Excepting those birds which nest colonially, the young, as soon as they can fly efficiently, leave their parents or are driven away." Many passerines fly fairly well at 17 days, but are fed by their parents till they are about a month old.

Mr. Fisher says, "There is no record of any kind of bird which breeds in the same season as that of its birth" (p. 166). In captivity a number of species have bred at ages of 2 to 4 months; these are tropical birds and their behavior in this respect in the wild is not known (Steinbacher, *Beitr. z. Fortpflanzungsbiol. d. Vögel*, 12, 1936: 139).

It is a pity to paraphrase an author incorrectly, but it is worse to put such a statement in quotation marks. I have never said "Female song-sparrows show no territorial behaviour at all" (p. 159). They never in my experience hold territory alone, but they help their mates defend the territory, even before nesting starts, and this I distinctly call "territorial behavior."

Mr. Fisher has correlated and presented a mass of interesting and useful information, with credit given to authors and full references included. It will help many students to orient themselves in the field of biology. In his foreword Mr. Huxley says, "Indeed, I should imagine that many professional zoologists will be surprised at the contribution to basic biological problems which are being made by ornithology. In some of these fields, birds have provided the material for greater advance than has any other group of animals: in none of them are they out-distanced."—M. M. Nice.

CHECK LIST OF BIRDS OF DALLAS COUNTY, TEXAS. By Jerry E. Stillwell, 7460 San Benito Way, Dallas, Texas, 1939, 3rd ed.; 6 x 9 in., vii + 83 pp. \$1.00.

The publication of a third edition of this extensive list of Dallas County birds is welcome evidence of the active study now being made of the long-neglected birds of northeastern Texas. The author and his associates, to whom he carefully gives full credit, have expended a great deal of effort on this rather elaborate and extremely condensed summary of the known status of 339 forms of birds in Dallas County. It is therefore hard to understand why they have left still undetermined the status of such common and easily collected birds as Meadowlarks and Flickers. The additional listing of 117 forms "as of possible occurrence" seems ill-advised in a faunal list in which space-saving devices have been employed to the point of making the text hard to read without considerable study of its many symbols and abbreviations.—J. V.

THE PRIVATE LIFE OF BIRDS. By Henry Smith Williams. McBride, New York, 1939: 5½ x 8½ in., 270 pp. \$3.00.

The Baltimore Orioles, Robins, Kingbirds, Catbirds and Cedar Waxwings on the Williams' sanctuary in southern Connecticut have built some extraordinary nests from the colored yarns provided by their hosts; the description of these experiments is the most valuable portion of the present book. It is a pity that colored plates of the nests, some of which have appeared in magazines, could not have been used for this volume instead of the all too familiar prints from the National Association of Audubon Societies, good as those were for their original purpose. The Williams did no banding (p. 96), more's the pity. We may accept their identification of the same oriole three years in succession by the individuality of her building, but what shall we make of this statement concerning the population of 1926 and 1927?

"The fledgelings of the new generation were born iconoclasts. In the veins of all of them, perhaps, flowed the blood of the innovator of 1923. Hereditary genius was their uniform endowment." (p. 98.) The supposition that the "eight or ten" female orioles of 1926 might be daughters, granddaughters and great granddaughters of the "innovator" is not supported by the results of banding other passerines.

Dr. Williams inveighs against "furry marauders" (fox, raccoon, skunk, and red squirrel), against black snakes, and particularly against "that worst of all enemies, the Cowbird." (p. 68.) We are told of the way in which the "golden warbler" meets the emergency by habitually building a second story to its nest, and it is suggested that the wide distribution of the "golden warbler" may be due to its having "learned how to circumvent the intruder." There is an interesting account in the *Auk* (1916: 178) of Henry Mousley's finding of a Yellow Warbler's incubating four of her own eggs and a Cowbird's egg, while one of her own was imbedded; Mr. Mousley removed the Cowbird egg, and raised up the warbler egg; three days later the parent warbler had embedded two of her own eggs. Herbert Friedmann, in his book on "The Cowbirds," tells us in regard to this species, "Cowbird eggs are frequently accepted if any Warbler's eggs are in the nest." As to correlation between wideness of range and success in outwitting the Cowbird, the Song Sparrow possesses an enormous range, despite its being victimized "over a greater area than any other species" (Friedmann) and the fact that in many places it raises more Cowbirds than does any other species.

The book is a curious mixture; there are some important facts presented, such as the statement that "about half of our orioles each spring are year-old birds (known by their lighter-colored heads)" (p. 95), these young birds starting to build a week or ten days later than "their elders." (p. 103.) Many of the author's views are sound, yet time and again his imagination takes the rein. "Obviously, they [Starlings] appointed one member to remain and keep the bluebirds dispossessed." (p. 161.) (We are not told how such an appointment might be effected.) It is naive to believe a bird sings to cheer the nesting mate, but instead of the territorial interpretation of song we are given the following "plausible idea": "that the songster, perched at a little distance from the nest, designs to attract the attention of any chance predator to himself; by the same token distracting attention from the more important member of the family and her precious eggs or nestlings." (One wonders why it wouldn't be wiser to keep still.)

There is a chapter on "Dressing Dangerously," explaining color in plumage on the basis of feminine passion for bright colors. "It is hard on the males, and may even jeopardize the race; but the aesthetic eye must be served." (p. 238.) An oriole "profited by her own mistake—and whoever can do that, can reason." (p. 127.) But a cockroach can be trained to run a maze, "brainless animals can profit from experience, and even the naturally ganglionless starfish learns." (R. Knight, *Nature*, 130, 1932: 650.)

The study of birds is a large field; no one person can hope to master it by himself. Why not avail one's self of the experience of other students as related in *The Wilson Bulletin*, *Bird-Banding*, and the *Auk*?—M. M. Nice.

ZUR ÖKOLOGIE UND VERBREITUNG DER SINGDROSSEL (*TURDUS ERICETORUM PHILOMELOS BREHM*). By Lauri Siivonen. Ann. Zool. Soc. Zool.-Bot. Fennicae Vanamo, 7, No. 1, 1939: ix + 285 (Summary in Finnish, pp. 286-89), 42 figs., 10 maps, 24 tables.

A comprehensive, thoroughly organized, and well-documented report on a 1934-39 study of the ecology of the Song Thrush. Breeding and wintering ranges and migrations are discussed and mapped. In recent years the species has extended its nesting range northward and has remained in winter in areas previously unoccupied at that season. These phenomena are in accord with observed improvement in the north European climate. The breeding range lies mostly in pine- and spruce-clad regions but takes in some broad-leaved forests. It almost completely incloses the ranges of *Picea excelsa*, *P. omorica*, and *P. orientalis* and is well correlated also with the distribution of certain herbs. Abundance of the birds and size of their breeding territories varies greatly with the type of environment. Open spruce forests and mixed woods rich in spruces are most favorable, supporting up to 15-20 (and locally even 50) pairs per square kilometer (247.1 acres). Other environments, including areas modified by man, are described and rated.

The Song Thrush invariably has a definite breeding territory in which representatives of other species, even of thrushes but not of its own kind, are tolerated. The nest usually is in a dense spruce and the materials locally gathered often camouflage it effectively. Its height from the ground is mostly from 1-3 meters (highest 12 m.) and it is most frequently placed against a trunk or among thick branches where it is protected from rain. It is also well shaded, the average site being only about a third as well lighted as those chosen by the Mistle Thrush. Materials and construction of the nest are described and illustrated. Variation in the number of eggs is thoroughly discussed, but little correlation with environmental factors is disclosed; the number of broods, however, increases from north to south. Incubation usually lasts 12-14 and brooding 13-14 days. Nest destruction varies with locality, being highest in the vicinity of man's dwellings; destroyers of eggs or nestlings include members of the crow family, especially jays and magpies, and in addition martens, weasels, dormice, snakes, ants, cats, and boys. The bird's songs are classified into five types that are discussed as affected by territory, breeding cycle, weather, intensity of light, and length of day.

In a section on nutritional biology, the author reviews the methods that have been used in studying and recording the food habits of birds and points out the desirability of making simultaneous investigations of available foods. He summarizes numerous earlier studies of the dietary of the Song Thrush and details the findings of his own researches, including both stomach analyses and field observations. The species consumes more animal food in the southern parts of its range and more wild fruits toward the north. Earthworms, snails, slugs, beetles, caterpillars, and ants are principal items of the animal diet, and fruits of *Vaccinium*, *Ribes*, *Empetrum*, *Sorbus*, and *Juniperus* leading articles in the vegetable subsistence. The food environment and feeding habits receive special attention, an interesting feature of behavior being the breaking of snails upon rocks that are habitually resorted to, the fragments of shells about these "anvils" conveniently indicating the bird's molluscan diet. The author inventoried available foods of sizes suitable for the Song Thrush in different types of environment at various seasons for the purpose of appraising utilization in relation to availability. But first he interposes results of a study of food preferences with caged thrushes from which he derives standards for an optimum diet. However the Song Thrush will

substitute for the most relished foods others less preferred, especially when these are abundant and readily obtainable. In other words, while the species has marked food preferences, they may be fully expressed only in the presence of all optimal foods. Preferences can be followed in many environments only so far as permitted by available supplies of which abundant sorts are likely to be most freely utilized. From his study of diet in relation to the kinds of foods present, he concludes that both regional and seasonal variations in utilization of food are in direct correlation with variations in the available supply. This is an interesting confirmation of the importance of availability (cf. *Smithsonian Misc. Coll.*, 85, 1932 : 135-136) but the intercalation of a theoretical optimum based on study of caged birds seems to add no strength to the hypothesis (cf. *Proc. Acad. Nat. Sci. Philadelphia*, 64, 1912: 356-364).

The author's term "optimal value of foods" appears to be only another way of expressing the familiar facts that birds are limited in their diets by their ecological ranges, by their sizes and capacities, and by their constitutional adaptations for collecting and utilizing certain types of food. Restricted by these dominating conditions, each kind of bird, as a rule, feeds in a more or less specific way in a limited environment, where in all likelihood the most plentiful edibles will be most freely consumed. This is the natural and practical thing, hence the rule. The bird may have preferences, but in the long run it is compelled by sheer pressure of circumstances to feed on available foods more or less in proportion to their abundance. The density of the Song Thrush population often seems to be in proportion to that of certain foods, as beetles, mollusks, and bilberries, but this principle does not operate to make the species as common in mature open deciduous woods, for instance, as it is in denser spruce forests, although the food supply may be equally great. The Song Thrush sometimes gets almost all of its food in a quite restricted part of its nesting territory, hence the author does not agree with Howard that quantity of food is decisive in fixing size of territory.

Concluding sections of the paper comprise a chapter on general behavior, a summary, and a 16-page bibliography.—W. L. McAtee.

SHORT PAPERS

- BRAND, A. R. and P. P. KELLOGG. The Range Of Hearing Of Canaries. *Science*, n.s., 90, Oct. 13, 1939: 354. (Range is 1,100 to 10,000 c.p.s. or slightly over three octaves. "Low and moderately high sounds are not heard.")
- BRODKORB, PIERCE. Rediscovery Of *Heleodytes chiapensis* and *Tangara cabanisi*. *Auk*, 56, No. 4, Oct., 1939: 447-50.
- . Two Undescribed South American Barbets. *Proc. Biol. Soc. Wash*, 52, Oct. 11, 1939: 135-6. (*Capito auratus macintyreii* and *C. a. conjunctus* subsp. nov. from Ecuador and Peru.)
- . Notes On The Races Of *Rhea americana* (Linnaeus). *Proc. Biol. Soc. Wash.*, 52, Oct. 11, 1939: 137-8. (Describes *Rhea americana nobilis* subsp. nov. from east Paraguay and recognizes four other subspecies.)
- BROWN, MAURICE. Fall Migrations Of Hawks At Hawk Mountain, Pennsylvania, 1934-38. *Auk*, 56, No. 4, Oct., 1939: 429-41.
- BURLEIGH, THOS. D. and GEORGE H. LOWREY, JR. Description Of Two New Birds From Western Texas. *La. State Univ. Mus. Zool. Occ. Papers No. 6*, Nov. 10, 1939: 67-8. (*Aimophila ruficeps tenuirostra* and *Amphispiza bilineata opuntia* subsp. nov. from Guadalupe Mts.)
- CHAMBERS, W. L. Bibliographical Notes On Dawson's Birds Of California. *Condor*, 41, No. 6, Nov., 1939: 231-43, figs. 39-46.
- DEUSING, MURL. Nesting Habits Of The Pied-billed Grebe. *Auk*, 56, No. 4, Oct., 1939: 367-73, 2 pls.

- EDMINSTER, FRANK C. The Effect Of Predator Control On Ruffed Grouse Populations In New York. *Jour. Wildlife Management*, 3, No. 4, Oct., 1939: 345-52.
- ELTON, CHARLES. On The Nature of Cover. *Jour. Wildlife Management*, 3, No. 4, Oct., 1939: 332-8.
- FISHER, HARVEY I. Pterylosis Of The Black Vulture. *Auk*, 56, No. 4, Oct., 1939: 407-10.
- FRANK, FRITZ. Die Färbung der Vogelfeder durch Pigment und Struktur. *Jour. f. Ornith.*, 87, No. 3, July, 1939: 426-523, 8 pls.
- GORDON, SETON. Fledgling Period Of The Golden Eagle. *Brit. Birds*, 33, No. 4, Sept., 1939: 111-2. (More than 11 weeks.)
- GROOME, J. R. The Breeding Season and Climate. *Ibis*, 1939, Oct.: 764-6. (Suggestions on methods of analyzing climate when studying its effect on bird's time of breeding.)
- HARGRAVE, LYNDON L. Bird Bones From Abandoned Indian Dwellings In Arizona And Utah. *Condor*, 41, No. 5, Sept., 1939: 206-10.
- JONES, JOHN C. On The Occurrence Of Lead Shot In Stomachs Of North American Gruiformes. *Jour. Wildlife Management*, 3, No. 4, Oct., 1939: 353-7.
- LACK, DAVID and JOHN T. EMLEN. Observations On Breeding Behavior In Tricolored Red-wings. *Condor*, 41, No. 6, Nov., 1939: 225-30.
- LYNCH, JOHN J. Marine Algae In Food Of Rhode Island Waterfowl. *Auk*, 56, No. 4, Oct., 1939: 374-80.
- MCCLURE, H. ELLIOTT. Cooing Activity And Censusing Of The Mourning Doves. *Jour. Wildlife Management*, 3, No. 4, Oct., 1939: 323-8.
- MANWEILER, J. The Combined Weight Class-Rectrix Pattern Method For Determining Sex Of Sharp-tailed Grouse. *Jour. Wildlife Management*, 3, No. 4, Oct., 1939: 283-7.
- MILLER, ALDEN H. Analysis Of Some Hybrid Populations Of Juncos. *Condor*, 41, No. 5, Sept., 1939: 211-14.
- MONTAGNA, WILLIAM. Feeding Behavior Of A Northern Shrike. *Auk*, 56, No. 4, Oct., 1939: 456-9.
- MOORE, ROBERT T. A Review Of The House Finches Of The Subgenus *Burricea*. *Condor*, 41, No. 5, Sept., 1939: 177-205, figs. 35-37. (Author divides *Carpodacus mexicanus* and its close relatives into 18 forms. Two new forms are described: *C. m. altitudinis* and *C. m. griscomi* from Chihuahua and Guerrero, respectively.)
- . Habits Of White-eared Hummingbird In Northwestern Mexico. *Auk*, 56, No. 4, Oct., 1939: 442-6.
- MONROE, BURT L. and ROBERT M. MENGEL. Observations Of Water Birds At The Falls Of The Ohio. *Kentucky Warbler*, 15, 1939: 25-, 38-44.
- MOREAU, R. E. and W. M. Observations On Sand-Martins At The Nest. *Brit. Birds*, 33, No. 4, Sept., 1939: 95-7. (Habits of *Riparia r. riparia*).
- . A Note on the Behaviour of the Common Swift (*Apus apus apus*) while Incubating. *Ibis*, 1939, Oct.: 760-1.
- MUNRO, J. A. The Relation of Loons, Holboell's Grebes, And Coots To Duck Populations. *Jour. Wildlife Management*, 3, No. 4, Oct., 1939: 339-44.
- . Food Of Ducks And Coots At Swan Lake, British Columbia. *Canad. Jour. Research*, 17, Aug., 1939: 178-86.
- ODUM, EUGENE P. and FRANK A. PITELKA. Storm Mortality In A Winter Starling Roost. *Auk*, 56, No. 4, Oct., 1939: 451-5.
- PETTINGILL, OLIN S., JR. History Of One Hundred Nests Of Arctic Tern. *Auk*, 56, No. 4, Oct., 1939: 420-28. (At Machias Seal Island, Bay of Fundy.)
- ROGERS, CHARLES H. A New Swift From The United States. *Auk*, 56, No. 4, Oct., 1939: 465-8. (Describes *Aeronautes saxatilis sclateri* subsp. nov. from Loveland, Colorado.)

- ROWLEY, J. STUART. Breeding Birds Of Mono County, California. *Condor*, 41, No. 6, Nov., 1939: 247-54, figs. 48-52.
- SALOMONSEN, FINN. Egg-producing Power of *Larus argentatus* Pont. *Dansk Ornith. Forenings Tidsskrift*, 33, No. 3, Aug., 1939: 113-33, 5 figs, 6 tables. (A valuable study of the physiology and psychology of this species.)
- SHOEMAKER, HURST H. Social Hierarchy In Flocks Of The Canary. *Auk*, 56, No. 4, Oct., 1939: 381-406.
- SMITH, HOBART M. The Mexican And Central American Lizards Of The Genus *Sceloporus*. *Field Mus. Nat. Hist., Zool. Ser.*, 26, July 27, 1939. 397 pp., 31 pls. (Includes a discussion, with map, of the biotic provinces of Mexico.)
- SPEIRS, J. MURRAY. Fluctuations In Numbers Of Birds In The Toronto Region. *Auk*, 56, No. 4, Oct., 1939: 411-19.
- SUTTON, GEORGE M. and THOMAS D. BURLEIGH. A New Abeille's Grosbeak From Tamaulipas. *Proc. Biol. Soc. Wash.*, 52, Oct. 11, 1939: 145-6. (*Hesperiphona abeillii saturata* subsp. nov.)
- TAVERNER, P. A. The Red-winged Blackbirds Of The Canadian Prairie Provinces. *Condor*, 41, No. 6, Nov., 1939: 244-6, fig. 47. (Concludes that *Agelaius phoeniceus arctolegus* is not a valid subspecies.)
- UTTAL, LEONARD J. Subspecies Of The Spruce Grouse. *Auk*, 56, No. 4, Oct., 1939: 460-4. (Describes *Canachites canadensis torridus* subsp. nov. from Nova Scotia and recognizes three other valid subspecies.)
- VAN ROSSEM, A. J. A New Race Of The Mangrove Swallow From Northwestern Mexico. *Proc. Biol. Soc. Wash.*, 52, Oct. 11, 1939: 155-6. (*Iridoprocne albilinea rhizophorae* subsp. nov. from Tobari Bay, Sonora.)
- WEAVER, RICHARD L. The Northern Distribution and Status of the English Sparrow in Canada. *Canad. Field-Nat.*, 53, No. 7, Oct., 1939: 95-9.
- WORTH, C. BROOKE. Cedar Waxwings and Other Birds in Panama. *Bird Lore*, 41, No. 5, Sept., 1939: 279-84. (Includes notes on habits and songs of several tropical species.)
- ZIMMER, JOHN T. Studies Of Peruvian Birds. No's 30 to 33. *Amer. Mus. Novit.* No's 1042 to 1045, Sept. 20 to Oct. 11, 1939. (Treats South American Tyrannidae and Pteroptochidae. In No. 1043 the author discusses a series of 209 specimens of *Nuttallornis borealis* and concludes that no geographical races can be maintained.)