

## ORNITHOLOGICAL LITERATURE

FLORIDA BIRD LIFE. By Alexander Sprunt, Jr. Based upon and Supplementary to Florida Bird Life by Arthur H. Howell. Coward-McCann, Inc., and the National Audubon Society, New York, 1954: 8 × 10 in., xiii + 527 pp., 56 plates, 40 in color by F. L. Jacques and J. L. Dick, 65 text figs. \$12.50.

Alexander Sprunt, Jr., D.Sc., of the National Audubon Society, Fellow of the American Ornithologists Union, has prepared what he states is a "revision-rewrite" of the State bird book which ornithologists have for many years recognized as one of the best. Arthur H. Howell set a standard with his 1932 volume which is hard to equal. It is a shame that the exhaustion of the small original printing of that work has brought about this hastily done book which will probably in time replace it in the minds of oncoming ornithologists as the definitive work on Florida birds.

Of the 42 introductory pages, 36 are taken up with: "Foreword," "Acknowledgments," "List of Illustrations," "Recent History of Florida Ornithology," (since 1932), "The Florida Audubon Society," "The Tropical Audubon Society," "Bird Protection in Florida," (since 1932), and "Note on the Author." The remaining six pages are given over to an emasculated version of Howell's discussion of the Physiographic Regions and Life Zones of Florida. Sprunt divides the State into four regions, Western, Northern, Central and Southern. The boundaries are, as he states, quite arbitrary. This is most obvious in that their positions show no relationship to any known natural factor in the environment. The discussion of "Position and Climate" may serve some useful purpose in attracting tourists to Florida but it certainly does not shed any light on conditions which the avifauna experiences. What information has been added contributes little, and what has been deleted detracts mightily.

The treatment accorded the "Birds of Florida" follows much the same pattern as that found in the earlier volume. This is almost a necessity in that most of the material has been lifted, in quotes, directly from that work. Some of the descriptions have been changed slightly, without noticeable improvement. Measurements, when given, are in inches and seem to have been taken from Howell. In the Foreword the author states that egg measurements have been added. This is not completely true. In a spot check, no measurements were found for the following: White-tailed Kite, Everglades Kite, Eastern Bob-White, Florida Bob-White, Florida Turkey and Limpkin. Range descriptions are usually taken (without quotes) intact from Howell.

Under the heading "History" the author has combined the nicely documented information which Howell presented in his discussion of "Haunts and Habits" and "Food." Sprunt, on occasion, has added his own observations along with information from the recent literature and other sources. For no apparent reason some of the earlier author's comments are deleted. On many occasions they are reworded with the original citations removed, making it impossible for the reader to determine whether Sprunt or someone else is responsible for the data. In other instances the original citations are left in place. This is not of much help to the reader who does not have Howell's book at hand in that all of Howell's references have been removed.

Five of Howell's distribution maps, inexplicably, have been removed. Of the remaining 65, some 25 have additional records indicated. As far as I can determine only eight of these show any extensions of range. On some occasions the validity of these extensions is open to question. Sprunt suggests that the Black Rail has extended its breeding range, on the basis of a song record by a Mockingbird. (D. J. Nicholson reported to him that he had heard a Mockingbird near Boca Grande imitating the notes of a Black Rail.)

The range of the Northern Blue Jay is extended on the basis of sight records by Sprunt and other observers. An October 13, 1946 specimen taken in Levy County is considered to be evidence of an extension of breeding range of *Dendroica dominica stoddardi* Sutton. The October date hardly constitutes a breeding record and more likely indicates migratory behavior. The wisdom of carrying to subspecies the identification of forms new to the State, in the absence of specimens, as is done in the case of *Dendrocygna bicolor helva* Wetmore, is questionable.

Sprunt comments at length on the occurrence of the Black Skimmer on inland lakes, yet the included map shows no such records at all. On the other hand some maps show new locality records (*viz.* the European Starling) without accompanying documentation in the text.

There are many inconsistencies in the taxonomic treatment. The order of presentation follows that of the A.O.U. Check-list, in general, and appropriate A.O.U. numbers are appended. However, the Gadwall is left in the genus *Chavelasmus* [*sic.*] without comment. This unexplained treatment, coupled with the placement of *Mareca* in the middle of the genus *Anas* makes for confusion. The change of *Moris* to *Morus* was overlooked. Several new forms are included which have not been accepted as valid by the check list committee (*viz.* *Dendroica dominica stoddardi* Sutton, *Hirundo erythrogaster insularis* Burleigh, and *Tyrannus dominicensis sequax* Brodkorb) with no comment by Sprunt as to why he considers them valid. Acceptance of *T. d. sequax* requires the substitution of *T. d. jugax* for *T. d. dominicensis* yet the latter name is allowed to stand. Contrariwise "*chloristibon*" [*sic.*] is not used as a replacement for *Riccordia* because "official recognition of such is not current."

Strange inclusions are as follows: Green-shank (removed from Check-list of North American Birds in 1931), Ringed Turtle Dove (a domesticated stock), Key West Bob-white (removed from Check-list in 1946), Wurdeman's Heron, as *Ardea wurdemanni* Baird (currently regarded as hybrids). Odd omissions, considering some of the inclusions, are: The King Vulture (the sight record by William Bartram has now been accepted as valid by the A.O.U. Check-list Committee), and the Rock Dove which certainly exists in a feral state in many rural areas in Florida.

No measurements are given for forms which are reported as new to the State, although the measurements of others are faithfully transcribed from Howell. The check of literature from 1932 on was apparently not exhaustive. For example, no mention is made of the successful growth of the Eastern Glossy Ibis colony at Biven's Arm and later Lake Alice, near Gainesville, although the reports of the resident Florida Audubon Society Wardens mention it. The Noddy Tern is said never to rest on bare ground although published information (*Auk* 58:259) was available to the contrary.

It is interesting to note that of the 50 forms added to the State list, eight were apparently overlooked by Howell, five are newly described races, and four are based on sight records alone. Most of the others are best regarded as vagrants. In the case of the single sight record for the Red-shafted Flicker, reported in the Hypothetical List, it might be wise to point out that variants resembling its western ally have appeared *in situ* in the eastern stock.

The Hypothetical List includes 36 forms. It would be interesting to know what, if any, reported observations were omitted by the author for lack of adequate documentation.

The book is attractively bound, and the format is pleasing. Mr. John H. Dick has provided several additional plates which are very striking. The original color plates by F. L. Jacques which appeared in the earlier volume appear again, along with most of the original habitat photographs.—J. C. DICKINSON, JR.

**SOCIAL FEEDING BEHAVIOR OF BIRDS** By Austin L. Rand. *Fieldiana: Zoology* (Chicago Natural History Museum), Vol. 36, no. 1, 1954: 71 pp. \$1.00, plus postage.

In this survey of what has been recorded of the social feeding habits of birds outside the breeding season (when there is the obviously special relationship of parents bringing food to young birds), an attempt is made to distinguish several types of behavior. The author is alert to the danger of assuming phylogenetic inferences in this type of data, and is correspondingly cautious in drawing conclusions. The simplest picture is that which obtains within the species, between individuals of the same kind. Rand discusses the social implications in such matters as the spacing of individuals, locating food and "communicating" such finds within the species, and the combining of effort by several individuals in securing a single item of prey. The attraction of food and the natural gregariousness of many birds provide the basic setting for these further developments.

The next group of situations is that in which birds of one species associate with a non-food animal, not necessarily a bird, for purposes of feeding. Here we have such cases as the cattle egret or the cowbird and large grazing mammals, and such an extreme development as the African greater honey-guide and the primitive tribesmen. In other cases one species may inadvertently provide food for another by leaving small scraps lying about, and finally we come to such instances as one bird stealing food from another, such as the oft mentioned one of the bald eagle forcing the fish hawk to give up its prey.

The most complex situation is that where several species of birds feed together, such as we find in mixed parties of insectivorous birds following a line of army ants, or a mixed flock of sea birds of several kinds. Throughout all the types of social feeding behavior one is aware of the acuity with which birds make use of small elements or small changes in their environment that provide some feeding advantage. Such occasional benefits may, in turn, lead to altered habits, but the apparent ease and rapidity with which these new habits seem to develop suggest that they may not necessarily provide reliable phylogenetic indications, as unrelated groups of birds may end up with similar social feeding patterns.

The paper opens up many problems and provides a convenient summary of a large amount of otherwise disconnected information, thus offering a basic working index to the literature of the subject.—HERBERT FRIEDMANN.

VI BULLETIN OF THE INTERNATIONAL COMMITTEE FOR BIRD PRESERVATION. Published by the International Committee for Bird Preservation, c/o British Museum (Natural History), Cromwell Road, London, SW 7, 1952:  $9\frac{1}{2} \times 6$  in., 248 pp., 12 shillings, six pence.

This Sixth Bulletin is the first published since 1939, and this may be a good opportunity to recall the history and object of the International Committee for Bird Preservation. It was founded in 1922 by the late T. Gilbert Pearson, then the President of the National Audubon Society. Immediately after the first World War, Dr. Pearson was very conscious of the importance of coordinating efforts all over the world to preserve the avifauna which was entering a critical phase. In many different regions bird life was decreasing alarmingly owing to human penetration, which meant excessive killing of certain species and destruction of the habitat of others. Something had to be done, and as the United States had some advance on other countries in establishing protective measures, it was natural that they should take the lead. Dr. Pearson came to Europe and met with a few people who were working along similar lines, particularly Mrs. R.

McKenna (Great Britain), P. van Thienhoven (The Netherlands) and the writer of these lines (France). The Committee thus was created. It is made up of National Sections, one in each of the countries where groups interested in the problem of bird protection can be found. Today these number nearly fifty. Each section consists of two representatives of eight institutions and societies. The scheme has worked well in promoting bird conservation ideas throughout the world, in helping and encouraging efforts of small groups and individuals, and in stirring up public interest to a considerable extent. After twenty years many important and tangible achievements have resulted.

The VI Bulletin is printed in four languages: English, French, German and Spanish, each contribution being written in one with summaries in the other three. It starts with the Declaration of Principles, stating the object and aim of the International Committee. Then come the proceedings of the VIII Conference held at Uppsala, Sweden, in 1950, the first plenary meeting since 1938, when many questions were discussed: transport of live birds, status of wildfowl, oil pollution, danger of insecticides, protection of migratory birds, protection of waders, exploitation of birds in the Antarctic islands, species threatened with extinction, and the situation of birds which are a menace to other species, adequate resolutions being adopted on all those important problems.

Following the summaries of the activities of the Panamerican and European sections (which group the national sections of the continents), comes the text of the International Convention for the Protection of Birds in Europe, established at a Conference in Paris in 1948. This constitutes one of the major successes of the Committee. The rest of the volume contains reports by the National Sections concerning the situation in the various countries.

The writer recently returned from the IX Plenary Conference held in Switzerland where he was reelected President of the Committee for a last term of four years. That term will bring his tenure of office to twenty years. Dr. Pearson had previously been President for sixteen years. In a world when transportation and contacts are becoming easier every day, but also when means of penetration and destruction are increasing continually, international organization is highly necessary, and it is to be hoped that those coming after us will develop, make more powerful and efficient the work that we have just started, and help in preserving for many generations to come the incomparable treasure that is the avifauna of the earth.—J. DELACOUR.

CHECK-LIST OF THE BIRDS OF GREAT BRITAIN AND IRELAND. Prepared by the List Subcommittee. Published by the British Ornithologists' Union, 1952: 5½ × 8½ in., pp. i-xii, 1-106, paper cover. Obtainable from H. F. & G. Witherby Ltd., 5 Harwick Court, London, W.C. 1, England. Seven shillings sixpence, postage sixpence.

This is a revision of the official B.O.U. Check-list, complete to July 31, 1950, the last previous edition having been issued in 1923. The scope is Great Britain and Ireland, including the islands adjacent, except the Channel Islands. Information is presented in highly concise form beginning with the accepted scientific name for the species, with the authority and a common name, the original reference, with the type locality, and a greatly abbreviated statement of range. This is followed by the scientific names for subspecies, if any are recognized, and another line indicating status for each in the area. Where the bird is found in North America the A.O.U. common name for the species is added whenever this differs.

The classification under orders and families agrees fairly well with that of the A.O.U. list, with the same suffixes used to designate the rank of the name. A separate order is

added for the flamingos, and there is some variation in the derivation of the group name, e.g. Ardeiformes, instead of Ciconiiformes, and Ralliformes for Gruiformes. The Old World Vultures are placed in a separate family, Aegypiidae, and the family term Falconidae is extended to cover the rest of the hawks and the osprey, as well as the falcons. All of the owls are included in a single family. The genus *Colymbus* applies to the loons, while *Podiceps* is used for the grebes, as is usual in Old World writings. Generic limits are broad, all of the phalaropes being included in *Phalaropus*, our spotted sandpiper and yellow-legs (both stragglers) in *Tringa*, and all of the mergansers listed under *Mergus*, as examples.

The condensed form of presentation allows the inclusion of the 426 species together with whatever subspecies may be represented within the pagination shown above. At the close one page is devoted to an appendix listing a number of races that are not accepted, with reference to the edition of 1915 for other information of this kind. A further statement explains the scope of orders, families, genera, species, and races, with description of the methods of designating types of genera. One index covers the genera, and a second the common names, where American "and other equivalents" are given in italics. Those responsible have done a careful and painstaking job in screening records and names, with commendable conservatism in doubtful cases.

The scope of this work obviously is quite different from that of the official check-list of the American Ornithologists' Union. This B.O.U. list is the authority for the acceptance and standing of the species and subspecies for which there is accepted record within the designated limits. The details of distribution and casual occurrence within the area are left to the multitude of other volumes describing the birds of the British Isles, completely or in part. There is no need therefore for repetition here. Our task in America is broader as it is necessary to provide the detailed range in connection with the accepted list because of the far greater geographic area to be covered, and since state lists and condensed handbooks look to our check-list for this information.—ALEXANDER WETMORE.

**BOWER-BIRDS. THEIR DISPLAYS AND BREEDING CYCLES.** By A. J. Marshall. Oxford Univ. Press, 1954: 9¼ × 6¼ in., 208 pp., 26 plates, 21 figures. \$4.80.

Though some bower-birds are brilliantly colored or ornamented, it is in behavior that this family of some 18 species of the Australia-New Guinea area is specialized. This behavior results in the building of mating stations, known as "bowers," decorated with leaves, flowers, stones, etc. This contrasts with the simpler mating behavior of the bower birds' near relatives, the crows, and the elaborate plumage adornment and physical displays of their other near relatives, the birds of paradise.

Marshall's book falls naturally into three parts: (a) birds' breeding seasons in general, (b) the bower birds, and (c) discussion of bowers.

In the first section, Marshall sketches the physical (neuro-endocrinal) basis for external factors influencing time of breeding, and the refractory period that would produce a rhythm without external controls. He examines a wide selection of breeding seasons that indicate not only that some external factors must be timing them but also that no *one* external factor can be operative in regulating them all. He stresses the very pertinent point that it is not the time of the inception of gonadal growth that is so important to the bird, but rather the time of ripening. (In some north-temperate birds the former may start in the autumn and be interrupted by winter.) This ripening varies from species to species, and from place to place, and is what, through natural selection, has ensured breeding at a time most likely to be successful. The theory of breeding seasons based

primarily on internal rhythms and, secondarily, on various external factors, including light, temperature, rainfall, food supply, and the activities of other birds of the same or other species (as with parasitic cuckoos), that may act in combination, is a welcome antidote to the views of those who, disregarding part of the evidence, would have one single simple factor, such as light, in control.

The account of each species opens with a general description of the bird and its range, then its breeding behavior and display, where known. The impression left by this section is how much is yet to be learned about bower-birds. For instance, the locality where one New Guinea species was taken is unknown; of another species we know, besides the description of the skins, only the locality whence the specimens came. The behavior of only one species is fairly well known, the Satin Bower-bird, (*Ptilonorhynchus violaceus*) in which the male makes an elaborate, avenue-like bower, the walls of which are orientated at right angles to the sun's course in the heavens, and which the bird paints, and in front of which it arranges selected objects of certain colors as "decoration." Here the male stations himself and is noisy long before the female is ready to mate. Finally the female visits the bower and is displayed to by the male, which uses the decorations from in front of the bower in his display. Copulation has not been observed at the bower, but probably occurs there, as it does in another species, the Spotted Bower-bird (*Chlamydera maculata*). The male apparently has no associations with the female away from the bower during nesting time; she builds a saucer-shaped nest and rears her young alone. After breeding, flocks of adults and young of both sexes are formed. At the other extreme Catbirds (*Ailuroedus*) apparently are monogamous, have no special display, and the male takes part in some nest duties.

The discussion points out that the bower represents a localizing or focusing of the territory-holding behavior, the favorite song perch, the song and display of passerine birds in general. Its nearest approach is in cleared display areas of certain birds of paradise, and the mound which the lyre bird scrapes together. Now, as specifically distinct as each species' plumage, the bower presumably is an adjunct to display in promoting copulation.

The bower building, Marshall thinks, arose out of a displaced nest-building drive of the male, and bower painting out of displaced courtship feeding. Marshall correlates the selected colors of the decoration objects with colors of the female or rival males, rejecting an earlier theory that the round objects used as decoration were to suggest eggs to the female and stimulate her to egg laying. Both of those views sound as if they came from a psychoanalyst's couch.

Dangerous as it is to theorize on scant data, some further suggestions and comparisons emerge. Marshall seems to think monogamous pairing is the rule in this family, but, as only the "primitive" Catbird (*Ailuroedus*) is known to help at the nest, it is possible that in some species the bower is the mating station to which any female may come, as in some other birds with small display grounds. The possibility that construction, repair, decorating and renovating of the bower may play a part in keeping the male bird occupied and "tied" to his mating station, rather than serving as a bond between the sexes should not be disregarded.

The use of a tool (a wad of material) by the Satin Bower-bird in painting its bower is one of the few instances of its sort among birds, recalling the Galapagos finch that uses a twig-probe to get at insects in crevices, and the anvil of the thrush for breaking snails. The north-south orientation of bowers of some species is the one positive case of its sort in birds, though it occurs in other animals, and it recalls the recent work indicating that homing may be oriented by using the sun in direction finding.

Such concrete expressions of behavior as bowers are excellent objects to arrange in series from simple to complex. From the "primitive" catbird without a bower, through the Toothed Catbird (*Scenopoeetes dentirostris*) with a cleared area decorated with green leaves and the Black Bower-bird (*Archboldia papuensis*) with a cleared area on which dead vegetation is placed, two lines are apparent: one, the saucer-shaped area with a central decorated "maypole" leading to the covered hut and nearby "garden" (*Amblyornis*, the Gardener Bower-bird), and the other, in which two rows of twigs are erected into an "avenue." Marshall, on this basis, makes the catbirds a family (Ailuroedidae) separate from the bower-birds, despite the fact that the evidence he presents on the Toothed Catbird is perhaps the best evidence we have that links the catbirds to the bower-birds. Further, as Stresemann has shown, they agree with the "maypole" builders in laying a plain egg, not heavily marked as with the "avenue" builders.

A tendency to fight anthropomorphism, that prevails the book is understandable when one considers the twaddle that has been written about the intelligence of these birds. But the conclusion that an aesthetic appreciation, a satisfaction given by contemplation of arrangements and colors, does not exist is better ruled out by definition rather than fact.

The illustrations are photographs of the birds, their bowers, and habitats, and microphotographs of gonadal tissues; the figures sketches of bowers, the heads of some species, and maps of ranges.—A. L. RAND

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