ORNITHOLOGICAL LITERATURE

THE WATERFOWL OF THE WORLD. By Jean Delacour. Volume Three. Eiders, Pochards, Perching Ducks, Scoters, Golden-eyes, Mergansers, and Stiff-tailed Ducks. Country Life Limited, London, 1959: 8 × 10 inches, 270 pp., 46 maps and 20 color plates by Peter Scott. 6 guineas.

The third volume of this sumptuous production has now appeared; previous volumes were reviewed in *The Wilson Bulletin*, vol. 67, 1955, pp. 314–317, and vol. 71, 1959, pp. 288–289. Many of Dr. Elder's comments in his review of the first volume apply to the work as a whole, and will not be duplicated here. A three-volume set was originally planned, but supplementary material intended for the third volume proved to be of sufficient amount to warrant publication of a fourth volume. This is to include "some general chapters on the morphology, anatomy and biology of the family; on history, sport, conservation, care and breeding; and also a bibliography. . . . It will also contain additions and corrections that have come to light since the publication of the first two volumes."

Such a volume, supplementing the first three, is badly needed, and it is perhaps unfair to review a single volume of the work without knowing just what will appear in the final part. Emphasis in the present review, therefore, will be on what is included rather than what is omitted from volume three.

As is well known, Delacour's "Waterfowl" is a large and expensive work, reminiscent in its format of the era of lavishly produced illustrated monographs of bird families. The typography is handsome, the binding attractive (in appearance if not in strength), the margins wide, and the colored plates abundant. This emphasis on physical appearance, with its concomitant high price, inevitably leads to conjecture as to the audience for whom the book is intended, and I confess that this question has me puzzled. One might suspect that the aim is toward that group often referred to as "rich sportsmen"; if this is the case, there is much technical matter, taxonomic and otherwise, that would seem superfluous. If aimed at the scientist, there is too much vagueness in the text ("Second year males resemble adults, with brown spots here and there," p. 20). Few scientists (at least in biology) and fewer students can justify a total personal expenditure of well over $60 for a publication of this type, and must hope that the libraries of their respective institutions can fit such a purchase into their budgets.

One of the major drawbacks of the book in its attempt to be all things to all people stems, it seems to me, from a deliberately chosen policy. Delacour states in his introduction (p. 15) ". . . the familiar species have been dealt with briefly as detailed information is readily available in other works. But the less known ones have been treated at greater length and important new information on them given as completely as possible." I firmly believe that this policy was ill-advised, although it undoubtedly enabled the book to be published more quickly. The mass of "detailed information . . . readily available in other works" for the common species is, in a group as popular and important as the waterfowl, so extensive and so widely dispersed that the greatest contribution Delacour could have made would have been a thorough synthesis of this vast literature. As it is, Dr. Elder pointed out in his review of the first volume that Delacour overlooked or ignored numerous important papers dealing with species covered in that volume. Because of this stated policy of the author's, we find in volume three the anomalous situation in which 7½ pages are devoted to the rare Brazilian Merganser (*Mergus octosetaceus*), and less than 4½ pages each to the holarctic Goosander and Red-breasted Merganser (*M. merganser* and *M. serrator*). Of the material on the Bra-

zilian Merganser, no less than 5½ pages are allotted to a direct quotation of the excellent paper by Partridge (1956. *Auk*, 73:473–488), a reference readily available in its entirety to any interested reader. The scientist and the student will turn to the original paper rather than to Delacour's abridgment for information about the Brazilian Merganser, and I suspect that most other potential readers of the book would prefer a relatively greater amount of space devoted to species they are likely to encounter personally.

Dr. Elder has previously commented on the amount of space devoted to accounts of each species in captivity. It is, of course, a truism that any book begins to be out-of-date from the moment of publication, but it seems unnecessary to augment the opportunities for obsolescence through the frequent listing of waterfowl collections in which a species is or is not represented "at present."

Generalizations made in the text sometimes appear to go beyond what is justified on the basis of known facts. In the account of "General Habits" of the pochards, the statement is made that "All species assume their adult plumage and breed in the first year" (p. 44). This could be definitely determined in wild birds only with marked individuals. And if the evidence afforded by captive birds be accepted, it must be noted that, as of the date of Delacour's writing, three species of pochards had never bred in captivity (*Aythya novae-seelandiae* has since bred at Slimbridge—a good example of the ephemerous nature of statements about "present" status in captivity). On p. 171, the casual dismissal of the complicated plumage cycle of the Old-squaw (*Clangula hyemalis*) as "of no real importance" is a value judgment out of place in the writings of a scientist.

Classification follows essentially that proposed by Delacour and Mayr in 1945. The major change is the segregation of the eiders as a separate tribe Somateriini, considered to be an offshoot of the Anatini, following Humphrey (for a dissenting opinion, see Johnsgard, 1960. *Condor*, 62:31). Taxonomic judgments at the subspecific level are quite inconsistent. Delacour admits *Somateria mollissima faeroeensis*, although calling it "a poorly characterized subspecies." On the other hand, *S. m. sedentaria*, which also, to Delacour, "seems to be poorly characterized," is denied recognition (although it is an excellent race, as anyone who has ever examined the pale females and downy young can testify). The supposed western race of Harlequin Duck, *Histrionicus histrionicus pacificus*, is admitted on the strength of its "rather larger bill," although Dickinson (1953. *Bull. Mus. Comp. Zoöl.*, 109:139) showed that less than 50 per cent of a sample including 32 eastern and 35 western specimens could be separated on this or any other basis. Delacour gives no comparative measurements to support his statement about bill size. He does give measurements for most subspecies based on size (there is an apparent misprint in the figures for culmen length of the American Golden-eye on p. 181), but in no case does he indicate the size of the series on which these figures are based, nor whether the measurements are original or compiled.

Details of distribution as presented in the text and on the maps must be evaluated by specialists, but I have found inaccuracies in the treatment of some of the species with which I happen to be familiar. For example, the breeding of the Ring-necked Duck (*Aythya collaris*) in the Adirondack region of New York was first reported by Severinghaus and Benson in 1947 (*Auk*, 64:626–627), and the population there has expanded in subsequent years, but is not shown on the distribution map (p. 75). In fact, a comparison of Delacour's map for this species and that presented by Mendall (1958. *Bull. Univ. Maine*, 60, no. 16: Fig. 3) is quite instructive. The "new colony in Pennsylvania" mentioned by Delacour refers to nestings between 1936 and 1939 in the newly-flooded Pymatuning Lake (several other species of waterfowl bred here for a few years after the lake was created). Mendall (*op. cit.*, p. 298) believed that a few pairs

may have nested at Pymatuning as late as 1954, but Grimm (1952. *Birds of the Pymatuning Region*, Pa. Game Comm., Harrisburg:84) knew of no nesting after 1939.

Various minor errors have been perpetuated from older literature (see also Dr. Elder's review of volume one in this regard). There seems to be no basis for the ascription of a yellow iris to the male King Eider (*Somateria spectabilis*), although it is so described in, among other works, *The Handbook of British Birds* (see Sutton and Parmelee, 1955. *Arctic*, 8:145). The downy young of Steller's Eider (*Polysticta stelleri*) does have light dorsal spots, *contra* Delacour and other authors (Parkes, MS. *Handbook of North American Birds*).

The colored plates are such an important feature of this work that many people are in the habit of referring to it as "Delacour and Scott," although Peter Scott served as illustrator only, not as coauthor. Mr. Scott has avoided monotony in his fine series of portraits by using a variety of background colors, and by varying his style of painting to some extent. As a matter of personal preference, I like the crisper figures and relatively uniform backgrounds of the series of paintings of *Anas* in volume two better than the softer (and seemingly more hastily-painted) figures and "busy" backgrounds of such plates as those of the wood ducks, comb ducks, and stiff-tails of volume three.

At least one error has crept into the plates. The "male in eclipse" of the Carolina Wood Duck (*Aix sponsa*) on plate VII is actually a female; the male retains his distinctive white facial markings when in "eclipse." And among ducks with as complicated a series of plumage changes as the large eiders, in which the aspect of the young males is almost constantly changing during the first two years of life, a figure labeled "immature male" is rather meaningless (plates I and II). When illustrating birds in anything other than a definitive "adult" plumage, more artists should follow the example of Schiøler in his classic "Danmarks Fugle"; in the latter work both the collecting date and presumed age in months of the figured specimen are given in the caption.

In some instances Mr. Scott has apparently been the victim of poor color reproduction. The heads of the female mergansers on plate XVI, for instance, are not nearly red enough (this is, to my eye, one of the least successful plates in the book). The bill of the male King Eider on plate II, on the other hand, appears to be too red (compare Sutton and Parmelee, *op. cit.*, Fig. 1). The browns of plate IV (Canvasback, Redhead, European Pochard) are not accurate.

These criticisms do not alter the fact that we will not have again for many years, if ever, as complete a set of generally excellent portraits of the world's waterfowl, painted by a man who has studied almost all of them in life and most of them in the field. Perhaps it will be possible at some future time to reprint these plates in a more inexpensive format, as was done for such works as Roberts' "Birds of Minnesota" and Forbush's "Birds of Massachusetts," in order to make the illustrations available to every student and admirer of waterfowl.

As mentioned earlier, reviewers of a single volume of an uncompleted work are at something of a disadvantage, particularly in the present instance in which the promised fourth volume is to remedy some of the shortcomings of the first three. Although the text thus far contains much of interest and usefulness, viewed in the light of Captain Delacour's international reputation as an authority on waterfowl it can only be characterized as disappointing.—KENNETH C. PARKES.

WILDLIFE OF MEXICO. THE GAME BIRDS AND MAMMALS. By A. Starker Leopold. University of Califrornia Press, Berkeley and Los Angeles. 1959: $7 \times 10\frac{1}{2}$ in., xiii + 568 pp., 194 figs., 1 map in color, 18 tables, 2 color plates. $12.50.

Mexico's diverse geography and climate have led to the formation of a biota that is

unusually rich and varied. In spite of this wealth, or perhaps because of it, there are few countries that show less concern for the conservation of their plant and animal resources or that exploit them with such devastating effectiveness. This is not new. From Díaz del Castillo in the sixteenth century, through Humboldt and Gadow, to the present, people have marveled at the diversity and richness of the Mexican landscape and chronicled and lamented its abuse. Now, however, the burgeoning population and economy of Mexico have accelerated this exploitation and the vast undisturbed areas which once existed are rapidly disappearing. Perhaps even worse than the destruction of virgin country is the denudation of huge tracts of agricultural land through faulty cultivation. Caught between dwindling habitats and increased hunting pressure, the wildlife is decreasing at a critical rate. Mexico must soon implement a sound conservation program or large portions of its flora and fauna will be forever lost.

"Wildlife of Mexico" was written with the intent of arousing popular interest in the fauna and creating concern for its conservation. It is, therefore, a "popular" book, but the biologist will find much of value in this attractive and exceedingly well-written volume.

The book is divided into three parts. The first, "The Wildlife Resource and its Management," contains brilliantly clear descriptions of the physiography of the country, the use to which the land is put, the manner in which the wildlife is utilized, and the present ineffective program for wildlife conservation. A plan for establishing refuges, improving habitats, educating the sportsmen, and implementing similar projects is also presented.

The chapter on "The Mexican Landscape" contains the best generalized account of the vegetation of Mexico to be found anywhere. Excellent photographs and a map in color greatly enhance the effectiveness of this description. Unfortunately, the map depicts only the former extent of the various vegetation types, although the present range is often markedly different. The text usually indicates where such discrepancies occur, but it would seem that a map showing these differences would be particularly valuable.

It is evident from the chapters on the exploitation of the land and its wildlife that Leopold understands and likes the Mexican people. Because he is *simpático* he is not pedantic and exasperated, which one must surely become if one attempts to apply American standards and practices of wildlife conservation to the Mexican scene, without a full appreciation of Mexican customs and viewpoints. Leopold is no head-in-the-clouds conservationist who insists that in order to preserve one must set aside areas where the land is not utilized, and the animal population is allowed to achieve its own level without the manipulations of man. Rather, he recognizes that the wildlife resources of Mexico can be harvested for the benefit and enjoyment of the people. This is an important point in a country where the whole idea of conservation is new and where the "What's in it for me?" attitude generally prevails, whether from mere ignorance or genuine need imposed by poverty.

The second part of the book treats of the game birds. The "game birds" are the types generally considered to be such in the United States. Resident species are thoroughly covered; transient or wintering forms (e.g., ducks) are briefly noted. Small birds, even though they may belong to game bird groups, as the *Columbigallina* and *Claravis* ground doves, are omitted, as are all of the Charadriiformes. Some species within these groups, particularly the ground doves, are of considerable local importance as food. One might quibble about their omission. A line must be drawn somewhere since in certain areas of the country almost any animal, ranging from flycatchers and lizards to caterpillars and grasshoppers, is considered fair "game." I should like to see the ground doves and some

shorebirds covered in the book, but would not insist upon the inclusion of grasshoppers.

The birds are grouped by orders and families. A general discussion of the attributes and distribution of the group precedes the species accounts. Each species is treated separately; exceptions are the four sibling species of *Leptotila* doves and three of Tree Quail.

A full-page black and white drawing illustrates every resident species; the nonresident forms are grouped, with two or more species to a page. These drawings, by Charles Schwartz, are handsome and have considerable vitality. Insets are used often to illustrate features of particular interest, such as the shape of a crest or the differences between the races of a species. Schwartz is a master at conveying an impression of the bird's habitat through simple background details like a corn stalk fragment, a philodendron leaf, or a distant thatched hut. An outline map showing the range of the species in Mexico also is included in each drawing.

The illustrations are supplemented in the text by descriptions of coloration and by measurements, including weights. A paragraph devoted to range includes details relative to habitat, abundance, and migration which are not evident on the outline maps.

A generalized life history account of the species follows. This varies greatly in length and detail according to the species considered. Here is assembled information which, for the most part, has not been available in a single source or which is totally new. The account ranges from estimates of population densities, descriptions of food and habitat requirements, and data on breeding to recommendations for managing species and comments on their culinary qualities. The sportsman will find the account interesting; the biologist will welcome the synthesis of much scattered information.

The third section of the book is devoted to game mammals and follows the same pattern used for the birds. The Grizzly Bear and Ocelot are illustrated in color. These plates are not nearly so effective as Schwartz's black and white drawings.

Appendices on Mexican game laws and regulations, a bibliography, and a good index conclude the volume.

This is a fine book. When it is translated into Spanish, which is said to be imminent (p. 2), it should help toward stirring local interest in Mexico's wildlife, and, we hope, will stimulate a forceful effort to preserve it. There is little likelihood, unfortunately, that such an elaborate and comparatively expensive book will have a wide circulation in Mexico, but possibly it will reach and influence the more affluent Mexicans who, perhaps, are in the best position to initiate serious conservation efforts. If this fails, "Wildlife of Mexico" will at least stand as an opulent obituary.—RAYMOND A. PAYNTER, JR.

CHECK-LIST OF BIRDS OF THE WORLD. A continuation of the work of James L. Peters. Volume IX. Edited by Ernst Mayr and James C. Greenway, Jr. Museum of Comparative Zoology, Cambridge, Mass., 1960: $6\frac{1}{2} \times 9\frac{1}{4}$ in., xii + 506 pp. $6.00.

The primary purpose of the average review is to help the reader to decide whether he wishes to buy, or have his institution buy, the book being reviewed. The reviewer likes to believe that an enthusiastic notice will help to stimulate sales, and that a real "roasting" will keep his readers from wasting their money. This approach cannot be used, however, for a volume of a standard reference work such as the Peters "Check-list." Such a book may be virtually indispensable to many readers, without any relation to possible defects or inadequacies. One simply *must* have the volume for one's professional library. The reviewer, therefore, addresses his words as much to the authors and editors of the reference work as to the reader, in the hope that constructive suggestions and corrections may be adopted in later volumes.

Few reference works are more important to the working ornithologist than the check-list commenced by the late James L. Peters in 1931, and completed through Volume 7 (of a projected 15) at the time of his death in 1952. The project is being continued by an international group of taxonomists under the direction of Ernst Mayr and J. C. Greenway, Jr., of the Museum of Comparative Zoology at Harvard. The relative difficulty of certain of the remaining families of passerine birds and the limitations of time available to the various authors of this project have necessitated a publication schedule which does not coincide with the numerical sequence. As mentioned above, Volume 7 was the last completed by Peters himself; the present volume is no. 9, and the next to appear will probably be no. 15.

A few changes in format characterize Volume 9, which includes the first 13 families of oscines. A useful binomial heading has been added for every species as a guide to the eye; this is a distinct improvement. Synonymies are limited to names not cited by Hellmayr (New World) or by Hartert or Sharpe (Old World). Descriptions of ranges, particularly of winter ranges of migratory forms, have been given somewhat fuller treatment than was done by Peters. The volume itself was printed in Denmark, presumably to save on costs. For a work set up in type by printers whose native tongue is not English, it is gratifyingly free of typographical errors, but among those few that were not caught are some in words that are not English (cf. "Linneaus" twice on p. 115; "**Troglodytns**" on p. 423).

The sequence of families is that outlined previously by Mayr and Greenway (1956. Breviora, no. 58:1–11). This sequence has been the source of no little controversy, and I will confine myself to stating that I ally myself completely with the viewpoint expressed by Storer (1959. *Condor*, 61:152–153). That the 1956 classification is not, after all, sacrosanct is indicated by two reversals of decision at the family level; the Palm-chat, *Dulus*, is given full family rank rather than being placed as a subfamily of the Bombycillidae, and the Prionopidae of 1956 (which included the strange Bornean *Pityriasis*) are reduced to a subfamily of the Laniidae, with *Pityriasis* given a subfamily of its own at the opposite end of the family from the Prionopinae.

The editors admit, in an introduction, that the multiple authorship of this and future volumes results in an unevenness of taxonomic viewpoint (well illustrated by the contrast in treatment between the adjacent families Troglodytidae and Mimidae in this volume). They point out, quite rightly, that Peters himself had shifted toward broader generic and specific concepts in the course of his seven volumes, and it is obviously impossible to state that Peters would or would not have approved of certain "lumpings" in this volume. A certain degree of continuing conservatism on Peters' part is manifested, for example, among the swallows, the manuscript for which he had completed before his death; the Barn and Cliff Swallow assemblage is divided into three genera rather than combined into one as advocated (I believe rightly) by Mayr and Bond (1943. *Ibis*: 334–341).

I find that most of the criticisms of this volume that I have jotted down while going through it prove to be concerned with matters of editorial policy, and are matters that, should the editors find my criticisms constructive, can be changed in forthcoming volumes. Perhaps the most serious fault of the present volume has to do with the establishment of author (or editor) responsibility for a given statement.. The names of the authors responsible for the various families are given only at the beginning of that family in the text; adding this information to the table of contents would save much thumbing back and forth. To indicate to the reader of this review just which families are included in Volume 9, and who the authors are, a summary follows: J. L. Peters (Alaudidae, Hirundinidae, Campephagidae [part]); C. Vaurie (Palearctic Motacillidae

and Troglodytidae); C. M. N. White (African Motacillidae); E. Mayr (Southeast Asian Motacillidae, Campephagidae [part]); J. C. Greenway, Jr. (American Motacillidae, Bombycillidae, Dulidae, Cinclidae); H. G. Deignan (Campephagidae [part], Oriental Pycnonotidae); A. L. Rand (African Pycnonotidae, Laniidae, Vangidae); J. Delacour (Irenidae); R. A. Paynter, Jr. (American Troglodytidae); J. Davis and A. H. Miller (co-authors of Mimidae with no division of responsibility indicated).

For those families originally prepared by Peters, there is no indication as to who brought the manuscripts up to date after his death in 1952 (numerous later papers are cited), although, as for all other families, there are footnotes stating by whom the manuscript for that family was "read." In the family Campephagidae, Peters and Mayr are each listed as being responsible for part of *Coracina*. A new name in this genus, *C. tenuirostris numforana*, is introduced on p. 187 with no indication as to its proper authorship.

An addendum on the last page of the text picks up a species and a subspecies inadvertently omitted from their proper places, and introduces another new name to replace one found to be preoccupied. This name, *Pycnonotus barbatus zeilae*, is not credited to any author. As it refers to an African bulbul, one would assume the author to be A. L. Rand, but I am informed that Dr. Rand saw this name for the first time when the book was published. The authorship of this name should be clarified in print as soon as possible. Unlike previous volumes of the Peters check-list, there is no list of newly proposed names. In addition to the two new names mentioned above, I found, by diligent page-thumbing, *Pycnonotus cafer wetmorei* Deignan (p. 236) and *Hypsipetes amaurotis nagamichii* Deignan (p. 295). I may have missed others.

In view of this rather careless handling of nomenclatorial matters, it comes as something of a shock to find the footnote initialled by Mayr (p. 193), rejecting a substitute name proposed by Ripley (1952. *Condor*, 54:362), giving as justification a highly dubious nomenclatorial technicality. This is not the place to go into details, but I can say that if Mayr believed Ripley's name to be invalid, he should have proposed a substitute. As it now stands, the name *panayensis* is used for two different forms of the genus *Coracina* in what is supposed to be the definitive check-list of birds of the world.

The footnote mentioned above is almost the only one in the book to which initials have been appended, and it was presumably done in this case because Mayr and Peters were each responsible for part of the genus *Coracina* (but see above with respect to the authorship of *C. tenuirostris numforana*). One would assume that all other footnotes were to be credited to the author of the family involved. However, the unsigned footnote on p. 131 was not written by Vaurie, the author of the section in which it appears; in fact, the opinion expressed in the footnote is directly contrary to that held by Vaurie (pers. comm.).

The introduction specifically states that "no new material has been added after July 1, 1958." I heartily commend the publication of such closing dates (absent in all too many check-lists, including that of the A.O.U.), but strongly urge that they be faithfully observed once set. In Volume 9, I note the inclusion of *Hypsipetes everetti samarensis* Rand and Rabor (p. 288), published in the *Auk* for January, 1959. Rand also cites Vaurie's "Birds of the Palearctic Fauna" (1959) in his list of references for the family Laniidae, although no other author (including Vaurie himself) does so. It may be argued that such last-minute inclusions add to the completeness of the volume. On the other hand, they are unfair to other authors who may have published new forms or revisionary studies between the announced deadline and the publication date, and whose works have *not* been taken into account.

One of the major departures in style from earlier volumes in the Peters series is the

introduction of English vernacular names, which are alleged to have been adopted "where a species occurs in English speaking countries and has a well known vernacular name." The application of this principle, as the editors admit, has been inconsistent. Examination of the names applied to members of a large genus such as *Pycnonotus* reveals many such inconsistencies. For example, *P. urostictus*, which is given an English name, is a species confined to the Philippines, a country in which English is more widely used than the "national language" of Tagalog. But *P. goiavier*, probably the most common species of bulbul in the Philippines (and widely distributed elsewhere in southeast Asia), is given no English name. Since this check-list is written in the English language, I believe that the proper step would have been to apply English names to all species or to none. Standard reference books in English are available for virtually all parts of the world's avifauna, and attempts are now being made to standardize English names of birds from primarily non-English-speaking countries (cf. Eisenmann, "The species of Middle American birds." 1955. *Trans. Linn. Soc. N.Y.*, 7: 128 pp.). Selection of appropriate English names for all species in the Peters list would do much to help such stabilization.

As in my review of Vaurie's check-list of Palearctic birds (1959. *Wilson Bull.*, 71: 286–288), I do not propose to dwell at any length on my own reaction as a taxonomist to the handling by various authors of groups I have studied. Differences of taxonomic opinion, I repeat, are inevitable, and need not be listed or mentioned unless an author is an outrageous extremist, certainly not the case here.

I may say in passing that I had felt for some time, on a purely empirical basis, that the family "Irenidae" as constituted in the present volume was an artificial one. It was therefore of great interest to me to see Wetmore's recent and highly plausible suggestion (1960. *Smithsonian Misc. Coll.*, 139, no. 11:19) that *Irena* should be placed in the Oriolidae, leaving *Aegithina* and *Chloropsis* as the family Chloropseidae.

Again as done in my review of Vaurie's check-list, I propose to indicate here, for the benefit of interested readers of the *Wilson Bulletin*, the differences (other than mere differences of sequence) in taxonomic treatments of the A.O.U. Check-list and the new Peters volume. These are as follows:

1. *Iridoprocne* is included within *Tachycineta* (see Brodkorb, 1957. *Jour. Paleontology*, 31:130–131).
2. *Progne cryptoleuca* is considered conspecific with *P. dominicensis* (see also Eisenmann, 1959. *Auk*, 76:532).
3. *Petrochelidon pyrrhonota hypopolia* is considered inseparable from *P. p. pyrrhonota*, and *P. p. minima* doubtfully distinct from *P. p. melanogaster* of Mexico.
4. *Petrochelidon fulva cavicola* of Cuba (accidental in Florida) is considered inseparable from *P. f. fulva* of Hispaniola.
5. *Anthus pratensis* (accidental), treated as monotypic by A.O.U., has an additional subspecies in Ireland (*theresae*).
6. *Lanius ludovicianus miamensis* Bishop is admitted (see Rand, 1957. *Auk*, 74: 503–505).
7. The specific name of the Bohemian Waxwing is *garrulus*, not *garrula* (see Parkes, 1958. *Auk*, 75:479).
8. The Ptilogonatidae are placed as a subfamily of the Bombycillidae, with a footnote stating that this relationship has not been proved.
9. The specific name of the Cactus Wren is *brunneicapillus*, not *brunneicapillum* (see Mayr, 1958. *Auk*, 75:225).
10. *Catherpes* is included within *Salpinctes*.
11. *Telmatodytes* is included within *Cistothorus*.
12. *Cistothorus palustris dissaëptus* is considered inseparable from *C. p. palustris* (but

see Parkes, 1959. *Ann. Carnegie Mus.*, 35:275–281), and *C. p. iliacus* and *C. p. laingi* revert to the "Prairie" and "Alberta" Marsh Wrens respectively.

13. *Troglodytes troglodytes tanagensis, seguamensis, stevensoni,* and *petrophilus* are all considered inseparable from *T. t. kiskensis.*
14. *Troglodytes aëdon baldwini* is considered inseparable from *T. a. aëdon, T. brunneicollis* is considered conspecific with *T. aëdon,* and *T. a. vorhiesi* is considered inseparable from *T. a. cahooni* of Mexico.
15. *Toxostoma bendirei* is considered polytypic, with two additional races in Mexico.

—KENNETH C. PARKES.

LIFE HISTORIES OF CENTRAL AMERICAN BIRDS. II. Families Vireonidae, Sylviidae, Turdidae, Troglodytidae, Paridae, Corvidae, Hirundinidae, and Tyrannidae. By Alexander F. Skutch. Illustrated by Don R. Eckelberry. Cooper Ornithological Society, Pacific Coast Avifauna No. 34, 1960: 7 × 10½ in., 593 pp., 100 figs., 1 col. pl. $15.00 ($14.00 in paper covers).

This volume of life history studies of tropical birds is the second major contribution to a series of assembled reports of critical studies made by Alexander Skutch. Having already covered five families from the Fringillidae through the Coerebidae in Part I, Skutch here presents work involving eight families from the Vireonidae through the Tyrannidae. This volume is considerably larger than the first, and includes studies of 59 species, as follows: Vireonidae, 3; Sylviidae, 2; Turdidae, 5; Troglodytidae, 12; Paridae, 1; Corvidae, 2; Hirundinidae, 3; Tyrannidae, 31. This work does not pretend to provide a complete coverage of all Central American birds, but a good sampling of representative species, for many of which detailed information has been almost completely lacking heretofore.

The treatment of each successive species follows the same general pattern which was established in Part I. It opens with a description of the bird's plumage and general appearance, its distribution, and something of its habits, including food habits, in an introductory section. Next come separate sections on voice, nest building, eggs, incubation, the nestlings, and finally a summary. Where more information is available for a species there may be additional titled categories, and where there is only a small amount of material it may be presented with fewer subheadings or none. Five of the reports are short résumés of longer papers which Skutch has previously published elsewhere. Original reports of as little as three pages in length have been included here, along with others extending to more than 15 or 20 pages. This is commendable because so many species are poorly known, the material might not otherwise be available for many years, and even an incomplete life history contributes greatly to a more nearly complete understanding of the Central American avifauna.

Most of the observations upon which this book was based were made in Guatemala, Honduras, Costa Rica, or Panama, during the period from 1929 to 1956.

Adding to the attractiveness and usefulness of the book are the numerous photographs, and the black-and-white halftones of birds, and the color frontispiece of three small flycatchers. With the exception of the three flycatchers depicted in color, each species in the book is represented by a drawing within the pages devoted to that species account. As far as I can determine, no separate credits are given for the photographs, so I assume that they are the contributions of the author. The bird drawings, obviously the work of an accomplished artist well acquainted with the species involved, were done by Don R. Eckelberry.

The section on flycatchers particularly, comprising 291 pages, is certain to intrigue

as well as inform the reader as he follows Skutch's progression from the species which build open, bowl-shaped nests to those which build completely enclosed, hanging nests; from species in which the male participates to a considerable extent in nesting activities, to those in which it takes no interest in the nest. Most readers will marvel at the extent and accuracy of the information on roosting, time of egg laying, incubation periods, nestling periods, family activities, and characteristic mannerisms, in species after species, some bold and colorful, others extremely plain and retiring.

The uniformity of approach, methods, organization, and interpretation evident in these studies is one of the major virtues of the series. The preparation of a summary for each species, except in the five reports which are summaries in themselves, further consolidates and unifies the presentation. Although there are nearly 200 titles in the list of Literature Cited, this work is not intended as a compilation of all known life-history data for each species. Therefore, some students may know a few details which are not included here, and certainly many additional facts will be learned in the future. For example, we could supplement Skutch's findings by mentioning that *Turdus assimilis* frequently occurs at 8,000 to 10,000 feet elevation in Mexico; that *Catharus aurantiirostris* may be found in parts of Mexico at 7,000 to 8,000 feet elevation; that *Legatus leucophaius* regularly uses the nest of *Icterus gularis* in Mexico. Eventually a compiler will add such fringe information to the detailed basic material which Skutch provides. However, the excellence and thoroughness of the presentation here is such that further developments will be more in the nature of broadening the picture of each species rather than bringing it into sharper focus. Skutch has such a wealth of information that it is most appropriate that here he should restrict himself largely to presenting the results of his own observations, rather than attempting a complete compilation for each species. He has acted as a compiler to the extent of presenting a summary of available information on the natural history of each of the eight families, in a separate section of five or more pages, at the end of the group of species accounts for that particular family.

Because of the writer's knack for presenting facts in an interesting manner, because of the inherent interest which life history material holds for many readers, because of the fact that most of the species treated are intriguing or unusual in many ways, and because the American tropics seem to have a glamorous fascination for many North Americans, this book should have wide popular appeal in addition to its great scientific value.—Ernest P. Edwards.

Winter Foods of the Bobwhite in Southern Illinois. By Edward J. Larimer. Illinois Natural History Survey Division Biological Notes No. 42, May, 1960: 8½ × 11 in., paper covers, 35 pp., illustrated.

This paper adds 34 counties in southern Illinois to the long list of geographic areas for which the food habits of the Bobwhite have been analyzed. The findings are based on data from crops of 4606 Bobwhites taken by hunters in two 31-day periods (November 11 to December 11) in 1950 and 1951. Larimer found, as have others, that Bobwhites subsist primarily on vegetal materials of cultivated origin in the early winter.—Thane S. Robinson.

Hawks and Owls: population trends from Illinois Christmas counts. By Richard R. Graber and Jack S. Golden. Illinois Natural History Survey Division Biological Notes No. 41, March, 1960: 8½ × 11 in., paper covers, 24 pp., illustrated.

Christmas bird censuses in the state of Illinois in the 52-year period, 1903–1955, have yielded data on 28 species of hawks and owls. For those who feel that such censuses are significant from the quantitative standpoint, this paper will be of interest. The

information extracted by Graber and Golden indicates that there has been a marked decline in the raptor population of Illinois since 1903, with the Rough-legged Hawk being most severely affected. Only a few species seemingly are on the increase. These include raptors that have been placed on the protected list, such as the Sparrow Hawk, Bald Eagle, and Marsh Hawk. The authors conclude that humans have been instrumental in regulating the seeming population trends of Illinois hawks and owls.

William E. Clark, photographer with the Illinois Natural History Survey, is to be commended for the excellent photographs of nine species of raptors that are reproduced, in black and white, in this publication.—THANE S. ROBINSON.

A TREASURY OF NEW ZEALAND BIRD SONG: AN ALBUM OF THREE RECORDS OF THE SONGS OF NEW ZEALAND BIRDS IN THE FORESTS, MOUNTAINS AND COUNTRYSIDE. By Kenneth and Jean Bigwood. Accompanied by a booklet, THIRTY NEW ZEALAND BIRDS, by Gordon R. Williams. A. H. & A. W. Reed, 182 Wakefield Street, Wellington, 1959: 7 × 7 in., 40 pp., photos. Paper covered. Album and booklet, boxed, about $6.30; records available separately at $2.00 each.

A fine addition to the slowly growing list of "natural sound" recordings! On the "extended play" (45 r.p.m.) records are preserved the voices of six native songbirds, 12 introduced songbirds (including the Australian Bell-magpie), some parrots, the Kiwi and other flightless species, some water birds, etc. The quality is excellent, as can be seen by comparing the English species, e.g., Blackbird and Skylark, with other available reproductions. The spoken commentary is graceful; yet anyone trying to study the songs soon finds the reiteration of the already memorized sentences an annoying distraction. Would it not be better to have no commentary and more songs? The booklet describing the species is pleasantly and ably written. It presents briefly the history of the New Zealand avifauna, and does what can reasonably be done (or a trifle more?) to gloss over the destructiveness of man, and to bring out the partially compensating enrichments of the fauna and flora due to him. There is an admirable essay on "Bird songs and calls." It contains a curious mistake. Perhaps in Australasia it is *almost* the case that the "songbirds, or Oscines" are "the only ones that have true song." Yet the 8600-odd species of the world's birds had just been mentioned, and however one defines "true," hundreds of non-Oscines truly sing. If the criterion is territory advertisement, then non-Oscine examples may well exceed 1000; and if one requires also recognizable musical character, they are still numerous. Thus the 15-second ascending chant of the Antbird (*Chamaeza ruficauda*) in Brazil; or the famous twilight song of the Wood Pewee (*Contopus virens*). There is a delightful specimen of musical rhythm in a hummingbird of Jamaica, *Mellisuga minima*, also in the non-parasitic cuckoo of North America, *Coccyzus erythropthalmus*.

Presumably certain New Zealand species, such as the Wattle Crow (*Callaeas cinerea*), were not recorded because they could not be found (extinct?). But why omit the White-eye (*Zosterops lateralis*)?

Of the native songsters, outstanding are the Tui (*Prosthemadera novaeseelandiae*), the Bellbird (*Anthornis melanura*), the Grey Warbler (*Gerygone igata*), and the Robin (*Petroica australis*), a flycatcher. The first two of these are certainly among the most fascinating of all avian musicians. The writer admits himself mightily puzzled: he did positively identify and make careful notes on singing Tuis and Bellbirds during a short stay in the islands, and the songs they sang had only a remote resemblance to those on this record. Apparently the differences of local dialect, or the individual and seasonal variations, to which Williams refers, go far indeed. I wonder if Captain Cook's quoted testimony to the Bellbird's music was not really a response to a mixed and, to

him, indistinguishable chorus of both species, which often sing from neighboring trees, and as this record shows, rather similarly (though I *thought* I observed wide and clear differences at Rotorua and Waikaramoana).

We should be most grateful to the three producers of this valuable set.—CHARLES HARTSHORNE.

VII BULLETIN OF THE INTERNATIONAL COMMITTEE FOR BIRD PRESERVATION. Published by the I.C.B.P., 1958: 250 pp., 16 pls. Mostly in English, but parts in German, French, and Spanish. Paper bound, $2.10. (Order from G. W. Merck, Secretary, I.C.B.P., New York Zoological Society, 30 East 40th Street, New York 16, N.Y.)

An introduction by President Jean Delacour is followed by a declaration of principles, all in four languages. Results of the Fifth and Sixth Conferences of the European Section, held in Italy in 1952 and Holland in 1956, and the Ninth and Tenth Conferences of the I.C.B.P., held in Switzerland in 1954 and Southern Rhodesia in 1957, follow. The discussions include:

(1) Protection of migrating birds and establishment of refuges on migration routes. Refuges established in Belgium, France, Great Britain, Hungary, and The Netherlands and the species benefited are given.

(2) Birds which are a menace to other species. The Herring Gull (*Larus argentatus*), Black-headed Gull (*Larus ridibundus*), and Black-backed Gull (*Larus marinus*), are considered, and the results of many censuses taken in Europe are given with appraisals of the damages and benefits which the species effect.

(3) Oil pollution in the seas. This problem and actions taken in different countries are discussed. Many countries have now ratified the resolutions set up by the I.C.B.P.

(4) Preservation of wildfowl, including much discussion on species with diminishing numbers.

(5) Effect of trade in plumage, cage birds, and carcasses on bird populations. Egret feathers still come to Europe from Venezuela, Gray Jungle Fowl from India, and Birds of Paradise plumes through New Guinea.

(6) Need of protection of birds of prey. Much of the report centers on Holland and the damages and benefits which species there are responsible for. Little mention is given about recent laws enacted in many states in the United States.

(7) Birds threatened with extinction. Thirteen species are listed as being in grave danger. Some, such as the Hawaiian Goose (*Nesochen sandvicensis*) and the Whooping Crane (*Grus americana*), are being helped, but little can be done for others such as the Eskimo Curlew (*Numenius borealis*) or the Cuban Ivory-billed Woodpecker (*Campephilus principalis bairdii*). There is a good summary of the location of the latter in Cuba with numbers observed. The status of the Japanese Crane (*Grus japonensis*) is likewise given.

(8) The effects of pesticides, insecticides, etc. on wildlife. The dangers and effects are discussed by different writers. In many cases protection to man and domestic animals has been enforced, but lack of protection to wildlife has resulted in much damage to birds, mammals, fish, and other forms.

(9) Bird protection. Reports from 17 countries are given.

This is a really worth-while publication. The reader will get much out of it and at the same time help support the I.C.B.P. by purchasing it. Bird protection is an international problem. A refuge created for one species usually benefits many biological forms. With the worldwide explosion of human population, we must consider now many of these serious problems lest we lose not only a few forms, but thousands.—LAWRENCE H. WALKINSHAW.