

ORNITHOLOGICAL LITERATURE

RAILS OF THE WORLD. By S. Dillon Ripley, illus. by J. Fenwick Lansdowne. Chapter on fossil species by Storrs L. Olson. David R. Godine, Boston, 1977:xx + 406 pp., 41 color plates, 35 black-and-white plates, 17 maps; size 10 × 14 in. \$75.00.—Dillon Ripley has been interested in rails since his earliest expeditions abroad many years ago, and has long wanted to write a monograph on the family. He was both inspired and challenged by Alfred Newton's remarks in the *Dictionary of Birds* (1893) that the rails are an enigmatic and little known family for which a monograph would prove rewarding and valuable. Ripley further explained his purpose in a meeting at the Peabody Museum in 1977, as quoted in *Discovery* 12(3):44 (1977), that he had become certain over the years "that if I ever could write a monograph on the rails, not only had one never been written before, but the likelihood was that one would never be written again, and that almost anything I managed to say about the rails was likely not to be very strongly corrected in the future, so that I had clear sailing by taking on a family that is as obscure, and little known, and enigmatic as the rails."

The result of Ripley's endeavors is a handsome monograph that certainly can take its place in the parade of fine bird books of recent years. This is a book in the grand manner; large, lavishly illustrated, and printed on fine paper with wide margins. It combines the attributes of a "coffee table" book that is a pleasure to browse through, and a utilitarian work of inestimable value to all who are interested in rails.

Fenwick Lansdowne is an accomplished artist whose rails here are generally successful and attractive, though a few have the wrong shape or pose. The Spot-flanked Gallinule is drawn to look like a gallinule, which it is, but in the field it looks like an oversized *Porzana*, and its bill is much brighter than pictured here. One irritating thing about the paintings is that the birds are not drawn to scale. On the first plate, for instance, the giant bird in the middle of the picture is *Eulabaeornis castaneiventris*, length 11 in., while the small one crouching at the top left corner is *Himantornis*, a hefty 17-inch bird. There are many other examples of this lack of scaling. The grouping is sometimes curious. Two *Canirallus* are on Plate 2 with Wallace's Rail, while the third is on Plate 3; why not put all 3 together? Perhaps the artist did the plates before the taxonomist started playing around with the genera. Another irritation is that while the text is keyed to the plates, the reverse is not true. The plate captions should have contained page references to the species accounts. Despite these annoyances the plates are a fine addition to the book and make a large contribution to its success.

The book is divided into an introduction and 5 parts. In the introduction Ripley gives a history of the discovery of rails, written with a charming antiquarian flavor, and describes his own early involvement with the family. His pleasant writing style makes for easy reading.

The acknowledgments come at the end of the introduction. From the vague generalization that "in recent years Gorman Bond and Michel Deshayes have undertaken further to make this whole work possible for me," one would never guess that what these 2 really did was to research and write up much of the data for the present work. Ripley should give proper, specific credit where due.

Part 1, *The Characteristics of Rails*, has sections on anatomy, classification, locomotion, flight, nesting, voice, duetting, display, fighting, and various aspects of the relationships between rails and man, with a long section on hunting. In the classification on p. 5, only 3 of the 8 promised gruiform suborders are listed; the other 5 were somehow left out.

The section on classification deserves some comment, mainly because of Ripley's radical revision of rail genera. His classification can be compared to those of previous authors as follows:

	<i>Genera</i>	<i>Species</i>
Sharpe (1894), <i>Catalogue of the Birds in the British Museum</i> , vol. 23.	50	165
Peters (1934), <i>Check-List of Birds of the World</i> , vol. 2.	52	138
Berndt & Meise (1960), <i>Naturgeschichte der Vogel</i> , vol. 2.	51	138
Fisher & Peterson (1964), <i>The World of Birds</i> .	51	130
Olson (1973), <i>A Classification of the Rallidae</i> , <i>Wilson Bull.</i> 85:381-416	35	?
Ripley (1977), <i>Rails of the World</i> .	18	129

It can be seen that while Ripley has made few changes at the species level, the carnage among the genera has been great. While few would deny that the time had come to do away with many of the old monotypic genera, one wonders whether such wholesale slaughter is really justified. There is no doubt in Ripley's mind that it is, for he says (p. 6) "I find few of the reasons advanced for maintaining additional genera compelling or cogent. A single question . . . seems to me open to arguments of taxonomic taste or discretion." In other words there is only one correct treatment—his own. Attention, rail taxonomists! The final word has now been spoken. You should be looking for work in other fields. Ripley continues: "For the rest, the preservation of so many genera of rails up until now has been a question of waiting for monographers to address themselves to this neglected family." This is true, but the reader should not get the impression that Ripley was the pioneer monographer who made the break with tradition. That pioneer was Storrs Olson, who reduced the number of genera to 35. Incredibly, Olson's classification is not even mentioned in the list of previous classifications on p. 6. Here is another instance of proper credit not being given.

In part 3, *Evolution and Speciation*, Ripley gives his reasons for merging various genera. Arguments will probably continue forever as to what constitutes a valid generic character, and every taxonomist is entitled to his own opinion, the only requirement being that he be consistent in his use of characters. The same character must not be used for 2 opposing functions. While many of Ripley's generic limits seem reasonable, he is sometimes guilty of this no-no. Thus, plumage similarities are the basis for merging *Neocrex* in *Porzana* and *Aramides* in *Eulabaeornis*, while plumage dissimilarities are ignored in uniting the African genus *Sarothrura* with the totally dissimilar New World genera *Coturnicops* and *Micropygia*. This arrangement is in any case geographic nonsense; and no-one who has ever heard the voices of both the Yellow Rail and *Sarothrura* spp. would ever dream of putting them in the same genus.

Part 2, *The Distribution of Rails*, is the most successful of the introductory sections, concentrating on the causes of distribution and covering subjects like adaptation and dispersal. Among other topics Ripley discusses the reasons for the success of rails as colonizers, and shows how their reluctance to fly and their rapid evolution of flightlessness might paradoxically help rather than hinder colonization. This is a thought-provoking and well-written section.

Part 4, *The Species of Rails*, contains the species accounts. This is the real meat of the book and its most valuable contribution. It is prefaced by a key to the genera, while in the text the genera have species keys and the species have subspecies keys. Each *species* account contains a brief overall description of the bird, taxonomic comments, and

a discussion of habitat, voice, food, and breeding. Each *subspecies* account contains a detailed description, measurements, distribution, and status. There are only 17 maps, and these are reserved for polytypic species with the most complex distributions. The maps are well-drawn, clear, and easy to read. There is a tremendous amount of information here, and the researchers evidently did a good job with the literature since the text is freely littered with citations. While excellent as regards "museum" type information (description, measurements, subspecific characters, distribution, etc.), the text would have benefitted from more first-hand field experience of the writers. Lacking this an attempt should have been made to contact other workers in the field and obtain unpublished information from them. In the account of *Rallina tricolor*, for example, out of nearly 2 full pages of text there are just 3 lines on life history as follows: "From the little that is known of its life history it appears to share the ralline habits of secrecy and stealth, damp habitat, and crepuscular calling and feeding preferences." You could make this same statement about most of the rails of the world and get away with it. Yet there is specific information about the bird. In 1974 Mrs. H. B. Gill, a well-known Australian amateur ornithologist, took me to see a pair of *Rallina tricolor* inhabiting a stream near her house. I taped the calls and played them back, which brought the birds into view. But I was not witnessing something new to science. Mrs. Gill had kept the birds under observation for some time and had already shown them to a number of visitors. Here was a paragraph of information on the species just waiting to be tapped. Also, there are only 2 lines on status in the entire account: "By no means rare in Queensland (E. P. Ramsay in Mathews, 1911)." Surely more is known about its status than a single remark in a book written 66 years earlier. Again, the status of *Canirallus k. kiolooides* is given as "Especially common on the narrow coastal plain at Maroantsetra (Rand, 1936)." That may have been true in Rand's day, but today most of the vegetation there has been cut down and does not harbor *Canirallus*, as Ripley could have discovered by checking with recent workers in Madagascar. Rouget's Rail, *Rougetius rougetii* is said to "keep hidden in thick vegetation during the day," and appear at dusk and dawn, another safe statement about almost any rail, but this one is a maverick and comes boldly into the open far from cover during daylight hours. I have sat in my car on the main highway north of Addis Ababa and watched *Rougetius* feeding on bare mud by a small pond, scarcely blinking as trucks and buses hurried by. The above instances only indicate a certain lack of field experience with the birds concerned and a lack of depth in research, and should not obscure the overall value of the information presented.

While the species accounts fulfill their function of drawing together information from every source, there is also new information of interest. Ripley has stuck his neck out and lumped King and Clapper rails, a treatment that will annoy many while pleasing others, but Ripley has bolstered his case with a lot of data, including personal communications, and has produced a reasonable argument. Again, there is a lot of information on the Galapagos Rail, *Laterallus spilonotus*, derived to a great extent, it would seem, from an unpublished MS by Alan Franklin and Deborah and David Clark, who studied the bird in the field. Strangely, there are no taxonomic comments on this bird, which has hitherto been considered a subspecies of the Black Rail, *Laterallus jamaicensis*. While this separation may well be justified, I think we are owed an explanation.

Part 5, *A Synopsis of the Fossil Rallidae* by Storrs L. Olson, is worthy of high praise. It is much more than a simple catalog. Each species is written up under the following headings: Holotype, Horizon, Locality, Material, Illustrations, and Remarks, the latter often containing considerable discussion. The chapter is copiously illustrated with

photographs and drawings of bones. This is a most valuable contribution by one of the world's leading authorities on the subject.

In conclusion, despite many faults this is a worthwhile and valuable publication. To have put all the rails of the world between two covers, complete with illustrations, is a praiseworthy achievement in itself. The price is steep but not out of line with today's incredible book prices, nor unreasonable considering the quality of production and number of illustrations. For all who can afford it, I can certainly recommend the book.—STUART KEITH.

Wilson Bull., 90(2), 1978, pp. 325–327

THE AUDUBON SOCIETY FIELD GUIDE TO NORTH AMERICAN BIRDS. EASTERN REGION. By John Bull and John Farrand, Jr., Alfred A. Knopf, produced by Chanticleer Press, New York, 1977:775 pp., 584 color photos. \$7.95.—A bird guide that tops the *New York Times Book Review* best seller list for paperbacks (which it is not) for several weeks, and which remains on that list for several months deserves more than passing mention. The dust jacket claims the book to be “a revolutionary field guide. Unique on four counts.” The supposed novel ideas are to illustrate the various species with color photographs rather than paintings, a “visual organization” of these photographs by color and shape, and a text arranged by habitat. None of these ideas is really new. The argument as to whether a photograph or a painting is the best means to present a typical representation of a bird is an old one (see a review by R. Mengel, *Auk* 72: 308–310, 1955), and in this case our authors, both connected with the American Museum of Natural History, come out wholeheartedly for photographs, “every artist rendering of a bird is his interpretation whereas a good photograph captures the natural color and stance of birds as you usually see them” (p. 12). The operative word is, of course, “good.”

The extent of the participation of the Audubon Society (National) in the preparation of the book is nowhere made clear, although Susan Rayfield of the staff of *Audubon* is listed as “Project Editor” and is given credit for the development of the “Visual Key.” I understand that it was she who performed the herculean task of rounding up the photographs used. In some ways this guide shows signs of lineal descent from the “Audubon Guides” written by Dick Pough a generation ago. Much the same geographical range is covered (everything east of the Rocky Mountains), and the present work attempts as did Pough to provide information beyond simple identification matters.

There are 584 color photographs covering 456 species. Most species are represented by spring males only, but 122 species have a second illustration, usually of a female or of another plumage. Twenty-six species are described but not included in the photographs, although a very small drawing of these species accompanies the text.

The photographs are clumped in the first half of the book, arranged in groups of similar shape, with small silhouettes serving as location guides. The passerines are arranged by color. The 2 photographs of dimorphic species are thus often widely separated. Arrangement by color also meant that some arbitrary decisions had to be made as to under what color to include a given species. These decisions were sometimes rather unwise, as for example the predominately gray and yellow Western Kingbird is listed under green birds. The text accounts of the species are arranged under 12 categories of habitat. Here again arbitrary and not always fortunate decisions had to be made. The Great Horned Owl, which must nest in almost any habitat, is listed under “Coniferous Forest,” the Red-headed Woodpecker is listed under “Grasslands” and inland birders

will be somewhat at a loss to find many familiar ducks listed under "Seashores." Usually these inconsistencies are set to rights in the text description of habitat, however.

Several appendices are included: thumbnail sketches of the avian families occurring in North America, a brief essay on bird watching, a glossary, a list of endangered species, and a list of photographic credits. The arrangement of this latter list makes it very difficult to find out which photographer gets credit for a particular picture.

The color pictures deserve critical comment. Color reproduction on a mass basis has come a long way in recent years and the job done here is an outstanding one. At the moment I know of no other collection of beautiful color photographs of birds that can be obtained so cheaply. Most of the pictures are excellent, although a few show unusual or even distorted poses. I could detect very few color distortions in my copy. The delicate sky-blue of the Mountain Bluebird and the Lazuli Bunting have reproduced to look more like the harsher blue of the Indigo Bunting and some of the other blues are slightly off. None of the plates in my copy is out of register.

A few of the pictures are bad, however, with the nadir being possibly the Philadelphia Vireo (451), and a number of others, while not bad as photographs, fail to show field marks of aid in identification. Examination of some of the pictures used, as well as the list of species not figured would indicate that even today some of our North American birds have not been adequately photographed. The Philadelphia Vireo may fall in this category. Unfortunately, there are some errors in identification. Plate 387 which is supposed to represent the presumably rarely photographed Black-headed Oriole (*Icterus graduacauda*) is actually one of the Old World orioles, possibly *Oriolus larvatus* which is also known as the Black-headed Oriole. Plate 268 is a female Spruce Grouse rather than the labeled Ruffed Grouse and Plate 37 appears to be a Western Gull rather than the indicated Herring Gull.

A definite hazard of using photographs for a field guide comes from the fact that many species are most commonly photographed on the nest or at least on the breeding grounds, and for some species the full breeding plumage is rarely seen by most bird watchers. Thus, the very fine picture of Sabine's Gull (44) at the nest would be of little help in identifying a winter-plumaged bird off the Maryland coast. Similarly, phalaropes in breeding plumage and alcids in close view are seldom seen by birders. Perhaps the most flagrant example of this is the Ruff (Plate 214) in its elaborate breeding plumage, photographed in full display, a charming and interesting picture but one bearing practically no resemblance to any Ruff ever seen on this side of the Atlantic.

From many years of experience in showing beginning bird watchers live birds in the hand at banding stations, I have become aware that often the tyro is overwhelmed by the detail in the plumage patterns. This hazard is also prevalent in the current guide. The duck pictures are by and large the most beautiful I have ever seen, but the detail of the feather patterns, the fine vermiculations, and the play of colors evident in these pictures are certainly not apparent when viewing ducks across an expanse of choppy water on a rainy, windy day.

All of the birds in the photos are reproduced to the same size, and even though a measurement of length is given for each species I fear that incongruous size relations will hinder rather than help the tyro. Some of the backgrounds in the pictures are unfortunate, the most ludicrous being a Chimney Swift posed awkwardly clinging to the side of a smooth-barked tree.

We are on surer ground when we consider the text. Both of the authors know their bird identification and they do a good job of describing the salient features for identification in the brief paragraphs allotted to this point. A few inconsistencies do occur. For example, on page 651 we are told that the Mourning Warbler lacks an eyering, but on

page 706 we learn that it does have one. To add to the confusion the male in the photograph (372) does not have one but the female in the same photo does. In fact, many Mourning Warblers, particularly fall females do have at least a partial eyering, a character seldom mentioned in *any* field guide. An inconsistency of another sort comes when we are informed on page 658 that the Black-crested Titmouse is included under the Tufted Titmouse, but on page 613 it is considered a full species.

Besides the descriptions, the text entries for each species include a very sketchy description of the voice, and range descriptions that are so abbreviated as to be misleading in some cases, particularly those northern species that nest south along the Appalachians. There are also habitat descriptions that are generally adequate and as mentioned above go a long way towards correcting the misleading categorization by habitat, and a brief description of the nesting habits. At the end of each species account there is a short paragraph presenting some additional information about the species, ranging from the trivial, through the self-evident, to some worthwhile and interesting information. As with the habitat categories there appears to be some slight bias towards things of interest to coastal bird watching and some of the remarks fail to apply to the given species when found inland.

How then does this book in the final analysis stack up as a field guide? Regretfully I must decide, "Not well, at all." It will be a rare novice bird watcher who can identify any but the most obvious species (usually only males) with this guide. Such things as the grassland sparrows, the shorebirds, and particularly the raptors will be very difficult. The fall warblers would be impossible.

The classic advice to beginning bird watchers is to equip themselves with a good field guide and also a set of good colored pictures of the birds. I suggest that for the beginner this book is a very good one for the second purpose to go along with one of the better guides. It is true that he will have a hard time finding any particular species except by way of the index, but he can enjoy the pictures. For the experienced birder I would suggest that the price is right for a good set of color bird pictures. Indeed the experienced field birder might well profit by careful study of the detailed plumage characters shown in some species. On page 12 the authors say that the book is "—meant to be a delight to look at. . . ." By and large this objective has been attained even if the book falls short in other respects.—GEORGE A. HALL.

Wilson Bull., 90(2), 1978, p. 327

STATISTICAL INFERENCE FROM BAND RECOVERY DATA: A HAND BOOK. By Cavell Brownie, David R. Anderson, Kenneth P. Burnham, & Douglas S. Robson. U.S. Dept. of the Interior, Fish & Wildlife Service, Resource Publication No. 131, Washington, DC, 1978: 212 pp. No price given.

Wilson Bull., 90(2), 1978, pp. 327–328

THE PHEASANTS OF THE WORLD, 2nd Edition. By Jean Delacour. Spur Publications, Saiga Publishing Co., Ltd., Hindhead, Surrey, England, 1977: 395 pp., 33 plates, 21 text figures. £18.—This is an updated reissue of the standard work on pheasants, first published in 1951. The original text is reprinted without revision, but more recent information is included in addenda to the various sections. After a general introductory

account, each species is considered individually in terms of appearance, habits, distribution, and especially in relation to care and breeding in captivity.

In addition to numerous range maps, the book is handsomely illustrated with 32 plates painted by J. C. Harrison, half of them in color. Some of the quality of the original color plates has been lost in reprinting. There is a reduction in sharpness from the first edition, and some differences in color tones. Many plates have acquired a distinct greenish tinge. New to this addition is a frontispiece, an attractive painting of a male Himalayan Blood Pheasant by R. David Digby.

Anyone interested in pheasants, both in nature and in captivity, will welcome the re-appearance and revision of this authoritative and visually pleasing work.—ROBERT J. RAIKOW.

Wilson Bull., 90(2), 1978, pp. 328–329

SPECIES RELATIONSHIPS IN THE AVIAN GENUS *AIMOPHILA*. By Larry L. Wolf. Ornithological Monographs No. 23, American Ornithologists' Union, 1977: viii + 220 pp., 10 pl., 17 figs., 36 tables, 1 long play record. \$12.00 (\$10.50 to A.O.U. members).—Even Robert Ridgway, who in 1901 established the genus *Aimophila* in its present form, felt that it was “a very heterogeneous and probably unnatural genus.” Lack of information about the species in this genus has hampered attempts at arranging them into related groups, and a similar lack of information about many related emberizine finches has made intergeneric studies all but impossible. Dr. Wolf has added enormously to our understanding of relationships within *Aimophila*, but comparable studies of several possibly related genera are still needed, as are similar studies of the two South American species, *Aimophila strigiceps* and *A. (Rhynchospiza) stolzmanni*, which Wolf was unable to attempt.

This monograph contains a wide range of information on the 12 North and Middle American aimophilas, including geographic and ecological distribution, molts and plumages, territoriality and pair bond, foraging and food, vocalizations, breeding seasons, nest structure, egg color, external morphology, and skeletal characters. There is no list of specimens examined, but sample sizes on the tables indicate that more than 1100 study skins and 340 skeletons were examined, and weight data on 667 specimens were included.

Based on his analysis Wolf divides the genus into 4 complexes: the *Haemophila* complex (*ruficauda*, *sumichrasti*, *humeralis*, *mysticalis*, and *carpalis*) having “radiated in the lowland scrub forests of western Mexico and the Pacific lowlands of Central America”; a *ruficeps* complex (*ruficeps*, *rufescens*, and *notosticta*) having radiated in “pine-oak woodland of Mexico and Central America,” a *botterii* complex (*aestivalis*, *botterii*, and *cassini*) in “weedy, open country of Middle America and United States”; and *quinquestriata* of “dense deciduous woodland” of northwestern Mexico.

Not considering the South American species detracts somewhat from the zoogeographic analysis. *Aimophila strigiceps* of northern Argentina and Paraguay resembles *A. sumichrasti* in plumage and inhabits brushy fields. *A. stolzmanni* of southwestern Ecuador and northwestern Peru differs from other aimophilas in its large bill, but appears closest to the *Haemophila* complex in plumage, and like *strigiceps*, inhabits brushy areas. Eliminating these species from possible membership in the other 3 complexes strengthens the zoogeographic conclusions regarding these complexes, while their possible inclusion in the *Haemophila* complex suggests that the conclusions regarding the evolution and distribution of that group will need expansion and modification.

The 12-inch record, on which songs of all 12 species and "chatters" of 5 are recorded will prove interesting and useful to ornithologists but a headache to librarians. On the whole, the vocalizations on the record well complement those shown on the sonagrams, but cross referencing and editing of the data could be greatly improved. There are no references in the text to the vocalizations on the record, and not all song types on the record are shown in the sonagrams. Nor is there any indication that any sonagram was taken from any song on the disc, although some may have been. Finally, while there are lists of figures and tables in the introductory material, there is no comparable list of the plates showing which vocalizations of which species are represented on each. In the absence of an index, such a list would have been very useful.

This monograph includes a wealth of information on a complex group of finches and is particularly valuable in showing how different kinds of information may be pooled to produce a good understanding of interrelationships within a genus of birds. If comparable studies of such genera as *Melospiza*, *Oriturus*, *Pipilo*, and *Chondestes* are pursued, a better understanding of the relationships among these genera and the complexes within *Aimophila* will follow.—ROBERT W. STORER.

Wilson Bull., 90(2), 1978, pp. 329-330

GUIDE TO THE YOUNG OF EUROPEAN PRECOICIAL BIRDS. By Jon Fjeldså, illus. by the author. Skarv Nature Publications, Strandgården, DK-3220 Tisvildeleje, Denmark, 1977: 285 pp., 39 color plates, 70 text figs., 1 photo. Danish Kroner 200 (approx. \$33).—This is the first guide devoted exclusively to downy young for any part of the globe, and emphasizes 180 species from Europe and Greenland. More than 70 of these species also breed in North America excluding Greenland. In addition to explaining and illustrating characters for identifying downies, the volume includes comments on their ecology and systematics.

Ornithologists have often neglected downies. Collectors often fail to preserve them, and perhaps for this reason, taxonomists have frequently slighted them. As Fjeldså points out, downies in the field are preferably identified by their own features rather than by the adults present as is often done. Where similar species breed in the same locality, identification is particularly challenging. For Europe and Greenland Fjeldså gives characters to identify all precocial downies to species, even for such difficult groups as the gulls, whose downies have often been thought to be indistinguishable. Fjeldså has handled more than 3700 live and preserved downies, an impressive total in view of their scarcity in many collections.

A general account of the biology of precocial birds (pp. 19-23) surveys relationships between nidifugous habits and embryonic maturation of young, nest sites, clutch sizes, adult foraging, and other ecological features. A section on morphology and changes in proportions during growth (pp. 24-30) includes a brief review of taxonomic variations in the structure and appearance of natal plumages. Natal downs exhibit a rachis in only a few avian families including certain ratites, tinamous, some Galliformes, and the Anatidae. As the natal downs of flamingos lack a rachis, the often noted similar appearance of natal plumage in flamingos and swans is superficial. Fjeldså also examines the relationship between habitat and the amount of pattern in downy plumages.

A section on banding downies (pp. 31-34) describes the reshaping of bands to match the cross sectional shape of tarsi. Many chicks too small for banding with conventional

bands that would slip off the leg can be marked by using such bands with a plasticine inner lining that gradually wears away as the leg grows.

A major part of the book contains family and species accounts. English common names follow European rather than American usage with synonyms given for each species in Danish, German, Dutch, and French. In a typical species account Fjelds  describes the downy young in detail, referring to one or more illustrations. Characters for distinguishing similar species are emphasized, and the author notes and illustrates individual variations in downy plumage for especially variable species. Also listed are body length and weight at hatching, time from hatching to flight of young, maximal brood sizes, band size, breeding range in Europe and Greenland, habitat, and time of year at which downies occur. Included are loons, grebes, a flamingo, swans, geese, ducks, grouse, phasianids, a button quail, bustards, rails, a variety of Charadriiformes, and sandgrouse. In accord with Fjelds 's taxonomic views loons and sandgrouse are placed in the Charadriiformes.

Brief comments on evolutionary relationships are included, and downies of a number of non-European species are illustrated and/or discussed briefly. Certain taxonomic differences in downy patterns are termed "nonadaptive" (p. 12), but would perhaps be better characterized as alternative kinds of adaptation. "Morphocline" phyletic diagrams indicate possible evolutionary affinities within the grebes, Anatidae, grouse, and Charadriiformes, but the evidence supporting these diagrams is not fully presented. In one such diagram eiders are placed in an unconventional arrangement between goldeneyes and mergansers. In the same figure, Fjelds 's sketch of a downy *Anseranas* does not agree with the correct description and illustration provided by Delacour (*Waterfowl of the World*, 4:327 and Plate V, Country Life, London, 1964).

Imperfections of this volume appear minor relative to its considerable merits. Neither a number of spelling errors nor an occasional sentence with peculiar wording detract seriously from the overall presentation. A statement (p. 27) that in certain taxa a plumage of preplumulae is pushed out by a plumage of prepennae needs clarification; it is difficult to visualize how this could occur. Fjelds  uses the term mesoptile but unfortunately does not explain how mesoptile plumages as a category differ from other kinds. Regrettably the text lacks literature citations, though three pages list the consulted publications; a reader wishing to check particular statements could have difficulty finding the sources.

For identifying downy chicks of European precocial species I know of no other book equaling this volume. Many of the author's illustrations are outstanding, and some may purchase the book for no other reason. The volume is attractively produced, sturdily bound, and fits readily in a field knapsack. It is an appropriate addition to any library with major ornithological holdings, and biologists with special interests in the downy young of any of the families or species considered will want access to it.—GEORGE A. CLARK, JR.

Wilson Bull., 90(2), 1978, pp. 330-332

THE COURTSHIP OF BIRDS. By Hilda Simon. Dodd, Mead & Co., New York, 1977: 190 pp., 54 color illustrations by the author. \$12.95—This book describes the diverse ways that "birds woo and win their mate." Apparently intended for amateur ornithologists, beginning students of birds and behavior, and nature lovers, it could serve as a good introduction to courtship behavior for any beginning student from junior high school

on. The text is divided into 5 chapters: Patterns of Courtship Behavior, Plumage Pageantry, Display Acrobatics, Wooing by Work, and Mutual Courtship.

Each chapter begins with a brief poetic description of the courtship of a species typical of the category being discussed. This serves to interest the reader and to introduce the topic. The first chapter describes the general courtship patterns of birds, and provides an introduction for the rest of the text. Simon discusses species recognition, imprinting, social facilitation (not so named), the effect of light, and aerial courtship. The chapter on Plumage Pageantry discusses how birds use feathers in courtship, and includes descriptions of birds of paradise, lyrebirds, and the Great Argus Pheasant. In Display Acrobatics the author describes courtship in grouse, prairie chickens, Ruff, bustard, Ostrich, and manakins. Wooing by Work understandably includes descriptions of bowerbirds, frigate birds, penguins, tits, wrens, and weavers. In the chapter on Mutual Courtship Simon describes Whooping Cranes, swans, geese, ducks, grebes, Jackdaws, and Laughing Gulls. As is obvious from the above list of species, she covers a wide range of species representative of birds in general. As when many non-ornithologists describe avian courtship, she concentrates on the spectacular, showy species whose antics and behavior fascinate the naturalist in all of us. However, sufficient space is not devoted to the majority of species whose monogamous courtship patterns are less spectacular. This treatment will surely give the naive reader an inaccurate picture of the number of species with spectacular courtship patterns. This solitary failing in the book can be forgiven since its intent is to excite interest, and this it does through a lively writing style and delightful illustrations.

Simon's writing is clear and pleasant. She treats such complex behavioral concepts as sexual dimorphism, imprinting, leks, and anthropomorphism well. Her discussion of the role of learning in imprinting, although brief, avoids the usual pitfalls, and she manages to avoid condescension while carefully defining all technical terms. Her writing style is expository, yet poetic. Occasionally her sentences become overly long, sometimes taking an entire paragraph, which may obscure the meaning in some cases.

I found the book to be generally accurate, bearing in mind that the descriptions are brief. However a few points need correction in a future edition. Although a bird may well sing to "encourage his mate" (p. 15), we have no way of knowing this. For a further discussion of such topics readers should refer to D. Griffin's recent book *The Question of Animal Awareness*. Although ethologists argue about the role of males and females, we still do not refer to males as asserting their dominance, to females as childlike (p. 66), or to a female as seeing the "error of her ways" (p. 128). I know of no ornithologists who "expressed a vague irritation" as they described "the seeming difference of the peahen when faced" with the splendor of the male's display (p. 70). The role of males displaying on a lek may be socially facilitating as well as for establishing a hierarchy. From my own perspective, the description of Laughing Gull courtship needed editing. I know of no research that indicates that males and females cannot recognize the sex of another Laughing Gull. The charge of a male is to repel intruders, regardless of their sex! The female's appeasement behavior may initiate courtship, but it is not an indication that the male did not perceive her as a female. Additionally, food-begging is not only symbolic in this species, as males do indeed regurgitate food to their mates. Generally, however, the descriptions are accurate, sometimes misleading only because of their brevity.

The color illustrations by the author supplement the descriptions, giving the reader a picture both of the bird and the display or behavior being described. Most illustrations are accurate, although the color on some could be slightly improved. For the non-

taxonomist it would help to identify the species and behavior in the illustrations, although a legend for each illustration does appear at the beginning of the book.

In general, this book is well-written, interesting, fairly accurate, and well-illustrated. I recommend it highly for amateur birders, high-school students, and anyone who enjoys nature. Additionally, it might be very instructive reading some evening for beginning undergraduate ornithology and behavior students.—JOANNA BURGER.

Wilson Bull., 90(2), 1978, pp. 332–334

MANUAL OF NEOTROPICAL BIRDS, VOL. 1. By Emmet R. Blake. The University of Chicago Press, Chicago and London, 1977: 674 pp., 12 plates (4 in color), 67 wash drawings, numerous range maps. \$50.00.—South America has been called the “bird continent,” as the variety of its feathered inhabitants surpasses that of all other tropical land areas of the world. However, a detailed descriptive account of the avifauna in its entirety has never been published. The “Manual” is designed to fill this gap and is the first of a projected series of 4 volumes. The work, once completed, will provide a synthesis of basic data of “all species and subspecies of birds recorded from the mainland of both Central and South America, the continental islands, and adjacent waters” (excluding Mexico, the West Indies, the Galapagos and Falkland Islands). Following the Wetmore sequence, the first volume includes mostly “coastal” and “water birds.” Among the more typically South American families treated are the rheas, tinamous, and cracids (curassows, guans, chachalacas). A brief introductory and general section includes a useful synopsis of families (by K. C. Parkes). The main text provides keys by families for all species to determine the bird “in the hand” and detailed descriptions of species and of all subspecies as recognized by the author. Measurements are given (sample size, range, mean) and the distribution is described and in most cases illustrated by fairly small, yet highly instructive maps. No life history data are summarized, presumably for reasons of space, but references for each species serve as a guide to ecological or more specific “biological” publications. Recent taxonomic sources followed by the author are quoted under the family and under many genus headings. The sequence of species in some families or genera and the generic allocation of certain species differ from those used by de Schauensee in his reference lists of the South American avifauna (*The Species of Birds of South America and their Distribution*, Livingston Publ. Co., Narberth, PA, 1966, and *A Guide to the Birds of South America*, Livingston Publ. Co., Wynnewood, PA, 1970). Of the 600 species treated in Blake’s first volume of the “Manual” just over one third (225 species) are illustrated in full or the head only on 12 plates (4 in color) and in 67 wash drawings scattered through the text. The superb plates are by G. Tudor (except one) who also contributed several excellent text illustrations. The majority of the latter and one plate are by R. V. Keane. Unless the number of plates is increased in future volumes, an inadequate illustrative coverage will be felt especially in the case of the very diverse passerine families.

Blake’s detailed systematic treatment of the Neotropical avifauna, summarizing and updating technical information scattered over a vast literature, will form a sound basis for future field investigators and will stimulate further ornithological studies in South and Central America. For the amateur it will be a dependable source of detailed information on the feathered inhabitants of South America and Central America as far as known today. Hopefully, the remaining volumes will be published without undue delay.

The influence of regional handbooks upon future ornithological research can hardly be overestimated. Therefore, the author of such a work preferably presents the material not only in the form of a summary and compilation of known data but, at the same time, points out unknown aspects of the avifauna at various levels from individual species and species groups to ecological communities. Generally speaking, the Neotropical avifauna is poorly known. New species are still being described at a rate of several per year. The life histories and the behavior of the majority of Neotropical birds have not been studied and little is known on their seasonality and migratory behavior. Relevant publications are listed in the "Manual" at the end of each species account. Nevertheless, I hope brief statements like "Terrestrial forest bird . . ." or ". . . hunts for insect prey in the canopy level. . ." will characterize briefly the ecological stations of species in the diverse Neotropical families to be treated in future volumes. As stated above, the emphasis of the text is on plumage description, measurements and the distribution of all species and their subspecies. The author does not discuss the theoretical basis for his systematic treatment of South American birds and, in future volumes, hopefully will point out more frequently open questions regarding the geographical variation and distribution of species and subspecies. "Subspecies" are often treated as if they were distinct biological entities, their names and text printed in the same large letter type as that used for the species (a smaller letter type for subspecies sections would be helpful in future volumes). Many subspecies are clinally related, grading into each other over wide areas, and their delimitation is highly subjective; or subspecies represent uniform populations in geographic isolation from the main species range; in other instances subspecies or subspecies groups ("megasubspecies") meet along "hybrid zones." These and other phenomena of geographic variation and population structure and their relations to environmental factors such as rainfall, seasonality of the climate, the existence of a network of broad rivers, and isolation by mountain ranges need to be brought out for each of the South American bird species (if the available data permit). In view of the differing nature of geographic variation among Neotropical birds, a more flexible treatment of "subspecies" might be considered for future volumes of the "Manual": e.g., a brief introductory section on general aspects of geographic variation would be useful for species with many "subspecies"; several clinal forms might be discussed jointly as a subspecies group, if necessary helped by tables for measurements, coloration or by maps to illustrate details of distribution (with subspecies names mentioned in the text only). The rigid standard treatment in this volume of species as if they were composed of \pm well "defined" subspecies might be considered as typological. To be sure, it is of biological significance to analyse the nature and cause of geographic variation in species populations, but to know the names of subspecies is less important.

Species are also treated in the "Manual" as independent biological entities of equal significance, although many different evolutionary levels are represented, from those species which have barely reached reproductive isolation to distantly related sympatric species. There are numerous South American species which exclude each other geographically in fairly uniform ecological regions presumably as a result of competition. In many but not all of these cases geographical representatives may be combined as allopecies of superspecies. Not a single pair of such parapatric species has been studied along the contact zone to learn how parapatry due to competition (?) "functions" in the field! For this reason it would be useful to map in detail the distribution of species with "peripherally overlapping" or mutually exclusive ranges and to discuss briefly species borders and relationships in an introductory section of each genus where applicable. The useful if small scale maps included at the end of each family section

of the "Manual" depict the distribution of all species. Often several species ranges are combined on a map of all or part of South America as space permitted. It would be useful to indicate in future volumes which of the allopatric or parapatric species could be considered as superspecies or as species groups.

Summarizing, I feel that in the case of avian families with numerous related genera and species the reader of the "Manual" would welcome brief syntheses at various levels which would help visualize the biological significance of certain aspects of geographic variation and distribution or which would point out certain problems of interspecific relations. The linear treatment of species by necessity breaks the avifauna into seemingly "independent" or "isolated" taxonomic units; the author could make an effort to "rebuild" the fauna, at least partially, by including brief sections on systematic, ecological or distributional aspects at the level of species, genera, and/or families. Hopefully, the author also plans for a future volume a section reviewing such general topics as the regionally varying systematic composition of forest and nonforest avifaunas, resident versus migrant species, annual cycles among Neotropical birds, and historical aspects of the differentiation of the South American avifauna.

In concluding I list a few comments concerning certain details of the text and the maps. In coastal and montane species it might be advisable to indicate the range by a heavy line or a series of dots following the coast line or a mountain slope, respectively, to emphasize the linear extension of their ranges. A few minor corrections may be listed; p. 29, key under *C. strigulosus* (♀), . . . south of the Amazon. The statement of "many sightings of the Red-head (*A. americana*) in Costa Rica and central Panama" (p. 250) is based on a misunderstanding and does not refer to this species (E. Eisenmann, pers. comm.). *Daptrius americanus* (p. 357, top) is distributed in Brazil south to (not of) Mato Grosso and São Paulo. Dr. J. O'Neill recently rediscovered *Penelope albipennis* (p. 412) in northwestern Peru. *Rhynchortyx cinctus* (p. 453) ranges eastward in northern Colombia to the Magdalena Valley (Volador; Westmore, Smiths. Misc. Coll. 150, pt. 1:332). Haffer (Publ. Nuttall Ornithol. Club 14:106, 1974) considers the form *ochroptera* as a subspecies of *Psophia crepitans* rather than of *P. leucoptera*. *Laterallus exilis* has also been collected in Amazonian Ecuador (Limoncocha; Pearson, Condor 77: 97, 1975; this locality is not located in eastern Peru). Typographical errors are rare.

Judging by this first volume, Blake's "Manual" promises to become the basic descriptive of Neotropical birds for many years to come, indispensable for professional and amateur ornithologists alike.—JÜRGEN HAFFER.