
Representing the culmination of a massive amount of research and more than 20 years of data collection to clarify and conserve one of the richest avifaunas on earth, this work stands as a spectacular achievement. Research libraries are duty-bound to shelve it, most Neotropical ornithologists have probably already added it to their core collections, and every serious birder either living in or traveling to Ecuador should carry it—at least part of it. Without question, both volumes are indispensable for all students of Ecuadorian birds. Available in a boxed set or individually, each volume is approximately the size of Hilty and Brown’s *Birds of Colombia* (1986), with volume I serving as a reference and volume II serving, nominally, as a field guide.

When faced with the problem of producing a work covering such a vast array of species (nearly 1,600), the authors wisely decided on writing two books, thinking that would silence those critics who demand a volume that is both comprehensive and portable. They have arrived at a novel compromise that will more than do but is less than ideal. Does the format problem lie in an unreasonable demand for portability in the field or in the conception of authors? Perhaps a second edition—and surely there will be one for what shall long reign as the definitive work—will profit from the pesky criticisms of those readers and users and from the model of other works on avifaunas yet to come.

Volume I provides—in relaxed, conversational prose—information on the status and distribution of each species in Ecuador, a taxonomic discussion, where pertinent, of all relevant taxa occurring in Ecuador (with few exceptions), rationales for the authors’ changing of English names (a preoccupation of the senior author), and each species’ world range. This delightful volume also includes a valuable gazetteer (complete with coordinates) and a passionate conservation section. The gazetteer is not intended to replace Paynter (1993); rather it builds on it, chiefly citing localities that provide the post-1960 distributional data for the volume. The conservation status of each threatened species is given additional coverage in the text, and all the subspecies known to occur in Ecuador are noted, making this volume a baseline for future research, as well as a useful conservation tool. The primary accomplishment of volume I is that it constitutes the best treatment of distribution—at both species and subspecies level—for any South American country. It is truly extraordinary. For the minority of ornithologists who have years of experience in Ecuador, and for those making a study of the avifauna, this volume will be the more exciting and the one consulted the more often. Yet far more than a tome to consult, it is a genuine pleasure to read. Due to the inevitable amassing of data—indeed this work will stimulate its further accumulation—this is the volume that will age more quickly, its historical nature becoming more evident as time passes. Even so, the naturalist’s pleasures of its presentation will remain open for a long time to come, not unavailable to future readers.

Among the bemusing pleasures for Spanish readers will be the numerous bird names that have been coined by the authors and their collaborators in a noble effort to standardize Spanish names throughout South America. Whereas this may be welcome in many quarters, local traditions are likely to frustrate systemization for the time being. What’s more, assigning Spanish names is no substitute for a Spanish rendering of the text itself (one can only hope that a translation is in the works) and for scientific names when referring to bird taxa cross-culturally. The authors would no doubt agree with this but would stress the hope that Spanish names will make the volumes more appealing to a popular audience.

Both Spanish and English readers unfamiliar with the contents of Volume I will find Volume II invaluable. It is a logical and well-crafted field guide, the second volume in the series. It is a superb field guide. It is also a pleasant, informative, well-reasoned, and enjoyable bird guide. The presentation is just as elegant and as easy to read as in Volume I. In Volume II, the authors present the avifauna of Ecuador in a logical and practical way, with an emphasis on what a birder might see in the wild. There are plenty of photographs to help identify the birds, and the illustrations are well done. The authors have included a wealth of information, from basic field marks to habitat preferences and behavior.

The Birds of Ecuador is a landmark work that will be an essential reference for anyone interested in the birds of Ecuador. It is a thorough and comprehensive guide to the avifauna of Ecuador, and it is highly recommended for anyone interested in the birds of this fascinating country.

The following critiques express the opinions of the individual evaluators regarding the strengths, weaknesses, and value of the books they review. As such, the appraisals are subjective assessments and do not necessarily reflect the opinions of the editors or any official policy of the American Ornithologists’ Union.
what to expect taxonomically will find a plethora of surprises among the bird names (both scientific and English) from doves and trogons to warblers. The authors clearly state the reasons for their judgments, even though some are arbitrary and no empirical data are presented. Many are not based on previously published papers. That raises a procedural dilemma for any author treating a complex avifauna. He or she knows that published research often is insufficient or lacking altogether to support a particular taxonomic opinion, research that would yield precise data—the exact specimen skins, tissue samples, specimens recordings, localities, history of the issue—whose analysis has been peer-reviewed and is subject to evaluation by others. In other words, insufficient, perhaps inadequate, research has been conducted to warrant splitting (or lumping) taxa. Yet the authors—no strict taxonomists themselves—are forced to make a taxonomic judgment that will affect how the taxa are treated in their book. They can recognize the discipline’s trends; they may well participate in setting them. When the trend is elevating named, subordinate taxa to species level, as it is nowadays, does one treat, for example, trans-Andean Geotrygon purpurata as a subspecies of cis-Andean G. saphirina, or as a full species? Ridgely elects (and it is the senior author here who is governing the calls) to elevate the taxon to species status “based on several striking plumage differences and its disjunct range.” Those same differences were apparent to Baptista et al. (1997) when they treated the taxa in their account of Columbiformes, yet they chose to conclude “race purpurata may represent distinct species;” “not globally threatened... extensive research required.” It should be noted here that Ridgely’s decision permits him to conclude “deserves Vulnerable status on the basis of its limited range and dependence on primary forest habitat... The species was not mentioned by Collar et al. (1992, 1994), probably because of the difference in the taxonomy they employed.” That implies that one reason for the trend toward splitting is its conservation-based value: subspecies have little or no status with most policy-makers; species garner money and attention. Is the urgency of conservation goals driving taxonomic decisions from the scientific paper to the handbook? That implies that one author here who is governing the calls to elevate the taxon to species status “based on several striking plumage differences and its disjunct range.” Those same differences were apparent to Baptista et al. (1997) when they treated the taxa in their account of Columbiformes, yet they chose to conclude “race purpurata may represent distinct species;” “not globally threatened... extensive research required.” It should be noted here that Ridgely’s decision permits him to conclude “deserves Vulnerable status on the basis of its limited range and dependence on primary forest habitat... The species was not mentioned by Collar et al. (1992, 1994), probably because of the difference in the taxonomy they employed.” That implies that one reason for the trend toward splitting is its conservation-based value: subspecies have little or no status with most policy-makers; species garner money and attention. Is the urgency of conservation goals driving taxonomic decisions from the scientific paper to the handbook?

The aim here is not to take issue with Ridgely’s taxonomic decisions. I simply want to call attention to some aspects of his procedure for reaching those decisions that academic ornithologists may find troubling. Ridgely is prepared to regard certain, selected subspecies as distinct allopecies in one genre (the reference handbook) whose authority originates with the author of the work, whereas established practice for some two decades—for very good reasons—has increasingly relegated that status to another genre (the scientific paper) whose authority is established through a peer-reviewed process. In the example of Geotrygon, that is the case in spite of the fact that his result constitutes a departure from the recent monographic treatment of Columbiformes by his peers. But who can blame him? Those authors themselves, as well as all Handbook of the Birds of the World authors right up to the present, have been given surprisingly free reign over taxonomy, and many have introduced novel arrangements based on nothing that can be evaluated. Omitted is any mention whatsoever of Baptista et al. in the Geotrygon account, and the Handbook of the Birds of the World treatment of Columbiformes does not appear in the bibliography. What is to keep taxonomic issues from becoming a handbook-to-handbook free-for-all?

Let there be no misunderstanding: Bob Ridgely is one of the most knowledgeable students of Neotropical ornithology we have, so one unhesitatingly grants him informed views about the taxa he is treating in Ecuador. (Do not be misled by the rhetorical “we.”) But is his manual on the avifauna of the country the appropriate venue for him to air his views? Perhaps so, but some taxonomists, conservationists, and field birders may find that unsettling as a practice. Prior to the work under review, the two disparate models for dealing with taxonomic quandaries when treating a large Neotropical avifauna can be represented by Hilty and Brown (1986) and Howell and Webb (1995), both admirable studies. The former stayed within then-current taxonomy, pointing out significant differences where they noted them, whereas the latter introduced a number of dubious and unsupported taxonomic alterations. If others are emboldened to hold up The Birds of Ecuador as a model, we may be in for a long period of splintering as each author of a country’s avifauna, bypassing peer-review, authorizes prejudicial judgments in his own work.

The Geotrygon example is one of many similar instances where taxonomic decisions are made by the handbook taxonomist. After a synopsis of the biological species concept (BSC) and the phylogenetic species concept (PSC) in his opening statements about taxonomy—and after briefly indicating how those raise theoretical problems in dealing with the same evidence on one hand, foregrounding different scientific evidence on the other—Ridgely admits,

All this poses problems for the practicing taxonomist... We have attempted to steer a course to the proverbial “middle ground” of this ongoing taxonomic debate on species-level relationships. Our basic approach has been to follow the BSC but to place somewhat more emphasis on population-level differences than similarities. The effective result has been to split some species when the evidence appears to support the likelihood that the populations would not interbreed were they to come into contact.

I understand the problems posed for evidence by incommensurable concepts, but is not Ridgely, in
explaining the rationale for his dealing with the problems left open by the theoretical issues, asking for special treatment by expecting the scientific community to accept the findings he, as author, has chosen to advocate? If the guideline is to apply the BSC to disjunct (allopatric) populations on the basis of some hunch that they are sufficiently different so that interbreeding is unlikely, then the range disjunction (however radical) cannot be used as one of the parameters (“based on several striking plumage differences and its disjunct range”); all the examples are allopatric by definition, and that has nothing to do with whether they might interbreed should they come in contact. Stipulating distinctive plumages or voices or behaviors is, of course, entirely legitimate (and their potential importance should always be pointed out); but it is without teeth, because we are given no idea what constitutes even a working concept of difference and certainly no basis for measuring degree of difference. Where are the objective criteria? Or, what criteria might be built into a concept of difference that would permit some objectivity? These are questions of procedural consistency and need not wait on a comprehensive theory. Even so, they cannot be answered adequately by the practicing taxonomist; rather those are matters to be attended to collaboratively by the practicing taxonomic body—the South American Check-list Committee of the AOU, of which Ridgely is a respected member.

These comments are not meant to critique the accepted practice of an author’s decision to follow one authority as opposed to another when the inherited taxonomic view is itself split. Exemplary here is Ridgely’s treatment of *Furnarius torridus* (Bay Hornero) in which he elects to follow data he finds persuasive, detailed data previously vetted by peer-review:

[*Torridus* has sometimes been considered as only a dark morph of *F. lineatus* (e.g., Vaurie 1980), but we follow J. T. Zimmer (Am. Mus. Novitates 860, 1936) in considering it a full species. Recent data from ne. Peru supports this; see, e.g., G. H. Rosenberg (Condor 92[2]: 427-443, 1990).

This accepted practice is not, however, without its pitfalls. One amusing example can be found in the taxonomic section under *Hirundinea ferruginea* (Cliff Flycatcher):

It has been suggested (e.g., Sibley and Monroe 1990) that it may be more appropriate to recognize two species of cliff-flycatchers, *H. ferruginea* (Northern Cliff-Flycatcher) and *H. bellicosa* (Southern Cliff-Flycatcher), but we conclude that the evidence to do so is not persuasive.

If we examine Sibley and Monroe (1990), we find the following remark under *H. bellicosa*: “Often treated as conspecific with *H. ferruginea* but appears to be a distinct species (R. Ridgely, pers. comm.)!” There is hilarity in this innocent circularity, but it is also misleading—misleading in a way that would not have been the case had the initial taxonomic verdict rested on the evidence in a peer-reviewed paper rather than on the no-telling-what of personal communication. This is no selective example; indeed it is a characteristic of the author’s procedures. However, usually the author agrees with himself.

A variation on this circularity is Ridgely’s self-citation of unrefereed work. That circuitous practice is another procedure all too widespread in recent literature. Because, in the authors’ taxonomic introduction, Ridgely has summarily invoked the slippery middle ground on which he and his collaborators are predisposed toward making trans-Andean splits, I suspect he is simply trying to proceed properly. He is, after all, writing as much for the birdwatcher and conservationist as for the professional ornithologist, and he is writing at a time when, as he acknowledges, there has been “recent ‘turmoil’ in the higher taxonomic realm of the Class Aves,” including, indeed, “a good deal of controversy concerning what actually constitutes a species.” But he should recognize that explicitly citing his own unrefereed verdict in a previous work might strike the reader as self-serving. There are many instances of this explicit self-citation through volume I, but notice the taxonomic section under *Conopias parva* (Yellow-throated Flycatcher). It reads, “We regard *C. parva* of Amazonia as a species separate from trans-Andean *C. albovittata* (White-ringed Flycatcher) based on its different voice, plumage, and highly disjunct distribution; this follows Sibley and Monroe (1990) and Ridgely and Tudor (1994).” Now this self-citation is at once explicit and hidden, for in Sibley and Monroe (1990) we find another personal communication from Ridgely whom they offer as the authority for their own taxonomic verdict. It is not surprising that Monroe, in preparing his work, would consult Ridgely about how the latter was about to treat a taxonomic issue in his forthcoming handbook (1994). Yet what emerges in the *Conopias* example is a tendency to self-cite under what amounts to the guise of citing another author.

Ornithologists and conservationists alike, I submit, need empirical data supported by clearly stated reasoning that is then subject to independent evaluation on a case-by-case basis. Otherwise we are liable to get more of this circular reinforcement of selective opinion. Many of Ridgely’s suggested taxonomic shifts, I suspect, are likely to prove meritorious (certainly his collaborators felt so), but the problem resides in his setting a strong precedent, because he sits in an august position. Others, less well informed (including any number of Handbook of the Birds of the World authors), will be more likely to take license in making their own unsupported marks on the historical tree.
of avian systematics. Without observing the rigorous demands of formal peer review (not the informal teamwork of project collaborators), the net result will likely be an even less-clear understanding of what constitutes an avian species than we now have. And the consequence of selective opinion in taxonomy could have a negative effect on conservation concerns, because it so destabilizes the context in which conservation agendas function that it may well offer the anti-conservationists grist for their dismissal or ridicule of the enterprise.

Birds’ English names have long been an absorbing interest of the senior author, and we can see that interest at play in these volumes as well. The senior author’s tendency is to modify English names that for some reason seem inaccurate or indiscriminate. He objects, for example, to “redstart” in his account of Slate-throated Whitestart (Myioborus miniatus) because the “long-used but misleading group name” is inaccurate: *Myioborus* have only white, no red, in the *staart* (Old German for *tail*). Here he follows Curson et al. (1994) and others. But in Ridgely and Tudor (1989), the authors felt that, despite the misleading inaccuracy, “the name ‘redstart’ is simply too well entrenched to be changed at this late date.” Dunn and Garrett (1997), dismissing the argument for technical accuracy, agreed and followed suit, as did the seventh edition (1998) of the AOU’s *Check-list of North American Birds* (1983). Now, some 13 years after his persuasive argument on the grounds of name stability, Ridgely arbitrarily replaces it without introducing any reason for doing so that was unavailable to him in 1989. *Miniatus* was named for behavioral and structural affinities to *Setophaga ruticilla* rather than misnamed due to some confusion about the etymology behind “redstart.” Swainson’s type description (1827) placed it in *Setophaga*; and, although *miniatus* and its congeners are now deemed not so tightly related to *Setophaga*, they do belong, after all, to the Parulidae. When *miniatus* was given a common name, it was logical to continue with “redstart,” even though it had no red in the tail. Now that it is referred to a different genus, should the English name be changed? It is not uncommon for one English name to comprise more than one genus. Who today, Dunn and Garrett ask, “commonly associates ‘start’ with the tail” anyway? How long does a name have to be “long-used” before it is immune to alteration by Ridgely—until, as with the antbirds (and heretofore with *Myioborus*), “the name has stuck”? Should all cotingas be renamed that are called so in English but do not belong to *Cotinga*? Does each genus deserve a corresponding English name? Most critically, should those kinds of decisions be left to authors of guides and handbooks? I am not suggesting that Ridgely is unaware of the questions; simply that he seems not to have resolved them satisfactorily.

An example of a “vague and unhelpful” name that Ridgely improved upon is Dull-capped Attila (*Atilla bolivianus*). He had changed this name (Ridgely and Tudor, 1994) to “White-eyed Attila” because “this species’ striking white eye is so prominent and unique that we prefer to highlight it in its English name”; he repeats and emphasizes this claim for uniqueness in volume II (both on the plate and in the species account). However, a white iris is not unique to *bolivianus* in eastern Ecuador. Although eye-color is a generally reliable clue to identifying a nonvocalizing attila, I saw and tape-recorded a white-eyed *A. spadicus* (Bright-rumped Attila, rufous morph) on the “Liana Trail” at Sacha Lodge, 19 February 1997 (Macaulay Library of Natural Sounds, catalog #107993). The senior author’s initial insistence on the uniqueness of the white iris of *bolivianus* may have led to the misidentification of a nonvocalizing bird, which he calls a “puzzling record,” at Sacha Lodge, 7 June 1995, “the only report of the species from anywhere north of the Rio Marañon.” This evidence does not nullify the alternative name, but it does invalidate the absolute reasoning behind the proposal. It also suggests that any author’s need to defend a replacement name, however welcome, may generate an absolute assertion, unnecessary when the name is replaced by a deliberative committee.

Yet Ridgely is correct, I think, to call attention to the inadequacy of some English names, and he has chosen the right time to do so with *Tolmomyias*, a genus undergoing widespread study and reconsideration. Ridgely notes as much, reverting to the group name of “flatbill” for all members of the genus, a name in use long ago and one more discriminating than the group name “flycatcher.” But why obscure matters, one might argue to a checklist committee, by calling yet another genus “flatbill” (there are already two) when it would be easy enough to give the group its generic name “tolmomyias”? Most ornithologists and many experienced field birders have long called them that anyway due to the notorious confusion that surrounds their systematics and their identification. And there is much precedent for doing so in attila, piprites, Sapayoa, schiffornis, Neopipo, etc. Here, it seems to me, Ridgely’s usual good sense about English renaming has abandoned him.

Moving from common names to commonly used terms, it might seem petty to take exception to the authors’ confusing misuse of “extinct” and “extinction.” Yet, if taxonomic decisions have come to be increasingly influenced by conservation priorities, it becomes especially important to use the language of conservation precisely. Those terms appear as part of the “formal ‘at-risk’ categories” used to indicate at-risk species in volume I. In the front matter, after clearly and concisely explaining the difference between the two terms in the first category, “extirpated/extinct,” four of the remaining five category definitions make improper use of the terms: “local extinction” is used...
in three, and “extinction in Ecuador” in one. This use is in disregard for the clarification offered initially. If, as we are told, “in Ecuador there are four Extirpated species but no Extinct ones,” best not confuse the issue, especially when some could well become extinct over the next few decades. Extinction is forever, and preserving the difference between those two terms helps the public as well as the incipient conservationist not forget it.

Both volumes received unsurpassable copyediting, although some typographical errors crept in after the editor’s final review (volume I, pp. 374 [line 16], 424 [line 29], 438 [lines 23–24], 501 [line 41], 594 [line 4], 629 [line 8], 714 [line 37]; volume II, p. 421 [line 26]). Nevertheless, to read such a clean production is not only refreshing, it is astonishing.

Cornell University Press is to be congratulated on the quality of binding and covers, both of which are sturdy and promise to hold up longer than most. However nice the boxed set at first appears on your shelf, the volumes are so tightly jammed into the slipcase that it is difficult to remove them. Imagine the difficulty after the swelling of some use! On my shelf, the volumes no longer reside in their box. The books are so tightly packed into the box that they are hard to remove. Imagine the difficulty after the swelling of some use! On my shelf, the volumes no longer reside in their box. The substantiality of the volume itself is not in agreement with the text (“still known in Ecuador only from a 1964 specimen”). These are, hands down, the finest maps I have seen in a Neotropical guide. Perhaps the cost of producing three volumes would have been prohibitive, but one has to wonder about the repetition in plumage descriptions despite good coverage on the pages facing the plates and the conventional but wordy “Similar species” sections, all the more extraneous in such a carefully illustrated guide. What is needed in a field guide is supplementary description of any distinctive, unillustrated plumage and a discriminating similar species section (only when apt) that isolates what species might be confused and states concisely how. The text should work in cooperation with the plate. Consider the treatment of similar species for Dendrocincla tyrannina. “Other Dendrocincla woodcreepers, which are equally plain in appearance, all occur at lower elevations. Montane Woodcreeper is smaller with slender decurved bill and extensively streaked.” But that can be stated more economically: “Congeners, equally plain, occur at lower elevations.” Should Lepidocolaptes lacrymiger, a most unlikely candidate for confusion and introduced presumably due to congruence in elevation, be mentioned at all? Simply look at the plate. To take a boreal migrant, for example, we find under similar species of Dendroica cerulea “Nonbreeding-plumage Blackpoll Warbler is larger with obvious back streaking, olive upperparts (no blue tone), and no superciliary.” How helpful are those points, especially if the bird, which, we are told, “tends to forage in trees high above ground,” is seen from far below? No mention is made of this warbler’s short tail—the most abbreviated of all the Dendroica and one of the surest ways to first pick out a Cerulean Warbler high above in the canopy—or of the different undertail pattern, although the tail pattern is well illustrated, especially because many of the tails on the upper half of the plate are clinically turned toward the viewer for closer inspection.

Introducing each family in volume II is a brief account that should be broadly informative, if not essential to field identification. Introducing each genus is another brief, pointed account, isolating characters of the genus that serve to set it apart from other genera (oddly, those generic sketches get repeated in abbreviated fashion on many of the pages facing the plates). Both those accounts are well written, occasionally inspired (see the account for Pipridae, for example), and contribute nicely to the guide. Yet the genus accounts for Aratinga and Pyrrhura, for example, although...
nicely written, are not properly informative. _Aratinga_ are mostly open-country psittacids, frequenting dry or semihumid woodland with a few in wet, lowland second-growth and river edge; their flight, as first noted by Whitney (1996), is usually above the canopy and without undulation; they roost in large aggregations (not typically in cavities). _Pyrrhura_ are all wet forest and river edge psittacids; their flight is below or through the canopy and with undulation; they roost in small groups in tree cavities. Furthermore, _Pyrrhura_ tails are not all red; rather, the upper tail feathers are green, so that anyone seeing a _Pyrrhura_ from behind or from above (say, from a 50-m canopy tower) is going to see a green tail. Unlike the genus account for _Grallaria_, to mention one of the many that are well done, those two accounts were given little thought and are of scant value, even misleading.

The concise species descriptions pertain to Ecuadorian taxa, and they are carefully written for the most part. No eye color is described for _Grallaria rigidyi_ (Jocotoco Antpitta); the plate illustrates a red eye, but the jacket cover shows a sepia eye, exposing the need for verbal descriptions even though the bird is well illustrated. However, these descriptions could have been transferred to volume I. The "Habits" sections are economical and include helpful data for identification. The "Voice" sections are well done, but, as the authors recognize, are not substitute for hearing the sound. Yet there is room for information about voice usually not conveyed on a CD that is valuable to have (song types, seasonality, time of delivery, song perch, behavior associated with song, distinctive call notes, etc.), and that has been included when known. Perhaps the most helpful text for a voice section is how a species' song differs from those of other, similar sounding species, or how some vocalization might suggest another species' in quality. Transcriptions of the song, no matter how skillfully and consistently rendered, take up precious space and are often more renderings on the plate. Then consider the adult _Buteo albigula_ (White-throated Hawk): one of the most conspicuous and telling features of this raptor in flight is its dark axillars; although these are well illustrated, neither the facing page nor the text calls attention to that mark, much less emphasizes it. Then there is the occasional typographical error on facing pages, such as that on plate 45 where it is said that the male's “speckled throat meets rufous lower underparts” for _Aglaiocercus kingi_ (Long-tailed Sylph), whereas what is meant is obviously the female's. But those are trivial oversights when weighed against the subtle and comprehensive artistic treatment of the many taxa that are visually distinct.

One of the pleasures the senior author must have had in working with his coauthor is that Paul Greenfield paints with the aim of getting details correct. That commitment overrides any personal investment, making him an ideal collaborator for a field guide. Greenfield can take a good suggestion and incorporate it gracefully. The detail of his brush is
noticeable, even when the general shape or posture of the bird seems off the mark. The plates are formulaic in their organization, as is to be expected in a guide. However, some groups seem especially well done, in spite of this, such as the rails, pigeons, parrots, nightjars, swifts, hummingbirds, jacamars, toucans, antwrens, antpittas, and tanagers; others are less successful to my eye, such as woodcreepers, ovenbirds, antthrushes, thrushes, and owls. Two groups, the raptors and trogons, seem disquietingly squatty.

But most imperfections of the kind to which I point are susceptible to revision in future editions, as are incomplete distributional and elevational records, gaps endemic to such a work. That there will be future editions is sure to be the conviction of all those who examine the first. Contemplating these lovely volumes, I think on first looking into Chapman’s Ecuador. Chapman and Fuertes. That is quite a tradition to renew. Yet despite some questionable procedures and a few inelicities, these neonaturalists with the conservationist aims have done just that. I am confident that we will all benefit by coming to see—and by endeavoring to protect—Neotropical birds through the keen eyes of Paul Greenfield, the engaging intellect of Robert Ridgely, and the passionate vision of both.—JOHN R. OWLETT, 918 Rosser Lane, Charlottesville, Virginia, USA. E-mail: pepfgi@earthlink.net

LITERATURE CITED


Early Southwest Ornithologists, 1528–1900.—Dan L. Fischer. 2001. University of Arizona Press, Tucson, Arizona. xxi + 271 pp., 20 black-and-white illustrations, 4 maps. ISBN 0-8165-2149-2 (cloth) $45.00.—Dan Fischer has produced an enjoyable and useful book on what in reality is a large and rather unwieldy subject: the spectacular array of southwestern birds, the naturalists who discovered (and named) them, and the developing human history that brought them all together. The primary focus is on the lives and accomplishments (with regard to southwestern ornithology) of an astoundingly diverse mix of individuals. In all, some 100 southwestern naturalists are treated, and another 100 are included because of affiliation with those on the southwestern frontier. In taking that comprehensive approach, the book may be the first attempt to deal with all the players through all the years, rather than with some subset (e.g. Army doctors, Biological Survey collectors) based on era, location, or profession.

But first, some definitions are in order. “Ornithologist” is broadly interpreted as “naturalist” and, indeed, the latter term is used more frequently.
throughout the book (and in this review) than the former. Included are all the curious explorers, soldiers, physicians, mining engineers, guano hunters, and other vagabonds as well as scientists (trained or otherwise); in short, it includes just about anyone who showed some interest in birds. “Southwest” is likewise broadly interpreted, to encompass (very roughly) the region lying between the thirty-fifth parallel and the Mexican boundary plus the northern Mexican frontier including Baja California and the offshore islands. In essence, that is a swath of real estate stretching from Brownsville, Texas to San Diego, California and extending some several hundred miles north and south of the international boundary. Another term for that vast region is “borderlands”, and that term is used—sometimes interchangeably with southwest—throughout the book.

The book is organized into seven, chronologically arranged chapters. It begins with the arrival of Spanish and other European explorers; then proceeds through the earliest American explorations and the ensuing conflict with Mexico; the subsequent exploration of the newly acquired territories and the definition of the new (and sometimes changing) border; through the Indian conflicts and the Civil War; to the more serious mapping and cataloging of “resources”; and, ultimately, to the maturation of ornithology as a science, including the founding of the American Ornithologists’ Union; the assimilation of ecology into the bureaucratic ladder to Washington, D.C.), will boastful” as well as “abrasive” and “proudful”; today, outposts, finally to the tip of Baja California (where he complained, and was eventually dismissed). I suspect Xantus was indeed “hypersensitive, jealous, and egomaniacal” as well as “abrasive” and “proudful”; today, we would have made him a Professor.

The clock starts in 1528, with Cabeza de Vaca’s wanderings through the region—although in truth, that lost individual provided little of value with regard to birds, and his credibility (after all, he claimed to have seen cities of gold) is somewhat in question. The first written accounts of birds in the region date from the arrival of Coronado in 1540. From that early date, the narrative proceeds through over 350 years of discovery, eventually concluding in the early 1900s, at the dawning of a new century. Through it all, we are introduced to the naturalists, some famous and others not: Thomas Say and William Gambel; Audubon, Townsend, and Nuttall; Cassin and Baird; Cooper, Coues, and Bendire; Couch, Merrill, and Sennett; Edgar Mearns, Frank Stephens, Herbert Brown, and Florence Bailey. The subjects, like the landscape of the region in question, are large, and there is no tidy way to prevent people and events from overlapping in time and geography. Nevertheless, Fischer has done a good job of organizing that unruly material into a coherent narrative.

The book affords good opportunity for readers to become acquainted—or reacquainted—with the people behind those familiar names. (Quick now, what was the relationship of J. J. Abert and J. W. Abert, and who is remembered in the name of a towhee and who in the name of a squirrel?) In fact, the narrative portraits of the naturalists involved make the heart of the book. Given the numbers of characters included, it is understandable that some are portrayed in greater depth than others. Nevertheless, the stories of some of the generally well-known naturalists may reveal unexpected tidbits, whereas stories of others may inspire readers to search further into just who those folks were.

Take for example the self-taught artist-naturalist Andrew Jackson Grayson, whose life was transformed at age 35 upon seeing an exhibition of Audubon’s work, and whom Baird came to call the “Audubon of the West.” In pursuit of his dream, Grayson ended up in western Mexico, where he was robbed by bandits and endured shipwrecks and yellow fever, and where his son was murdered on the mean streets of San Blas. Chronically poor, and receiving no assistance from the establishment back home, he gained an audience with the Emperor Maximilian, who agreed to sponsor his work; unfortunately (for both Grayson and Maximilian) the Emperor soon thereafter was overthrown and executed, and no funding materialized. Nevertheless, much of Grayson’s surviving art is deemed superior to that of Audubon, and his observations of west Mexican birds still ring true.

The account of the generally outrageous John Xantus is another fine tale. Xantus seems to have been able to alienate himself from most everyone he contacted, and that picture of him is painted as much in his own words as it is by the words of others. He seems to have developed a dislike for Woodhouse just from reading something Woodhouse had written years earlier. Complaining all the way, he nevertheless discovered new birds and sent important collections back east, while the patient Baird continued to send supplies and see that he was assigned to new outposts, finally to the tip of Baja California (where he complained, and was eventually dismissed). I suspect Xantus was indeed “hypersensitive, jealous, and boastful” as well as “abrasive” and “proudful”; today, we would have made him a Professor.

The list goes on. The account of H. W. Henshaw, 10 years with the Wheeler Survey (before moving up the bureaucratic ladder to Washington, D.C.), will be especially appealing to latter-day field biologists: roughly attired, bearded, and loaded down with collecting gear (including butterfly nets), he could prepare a specimen using a saddled mule for a “table” or sit for hours observing the behavior of birds in life. And consider A. W. Anthony, who enjoyed nothing better than spending nights alone at sea in a rowboat, the better to become acquainted with the lives of seabirds.

Here too are some of the familiar stories, some grown into legend: Bendire, 40 feet up in a cottonwood, popping a Zone-tailed Hawk (Buteo albonotatus) egg into his mouth before descending and fleeing from watching Apaches; the ailing Heermann, stumbling over his own collecting gun and mor-
tally wounding himself; the naming of Virginia’s (Verminova virginiae), Lucy’s (V. luciae), and Grace’s (Dendroica gracie) warblers; the story of how two sapsucker “species” were eventually recognized as one (when Henshaw took the time to watch a pair of Williamson’s [Sphyrapicus thyroideus] at their nest); T. C. Henry inadvertently naming the Crissal Thrasher “dorsalis;” the “arrest” of Coues for disobeying orders forbidding the discharge of firearms (because he just could not resist passing up the opportunity to collect some desirable bird). One story, involving White-throated Swifts (Aeronautes saxatalis) at what is now El Morro National Monument in New Mexico, ties together several individuals across several decades. Woodhouse first noted the bird there in the early 1850s, and proceeded to describe it as a new species based solely on his visual observations (pp. 50-51). Two years later, Kennerly and Mollhausen collected the type specimen in Arizona near the Colorado River, “a deed which Woodhouse failed to do” (pp. 60–61). Some years later, Xantus weighed in, finding in the episode an opportunity to disparage Woodhouse (pp. 103–104). Henshaw, however, while actually observing the swifts in flight at El Morro, understood and explained exactly why Woodhouse had described the birds the way he had (p. 135).

Not surprisingly, interesting trivia abounds. We learn that Cassin had more birds named for him—five—than any other American-born ornithologist (the Scottish-born Wilson tops the list with eight). Of course, we also learn that Cassin requested of Baird that a particularly distinctive finch be given the name cassinii. Audubon, by the way, considered Cassin a “closet” naturalist; Cassin deemed Audubon merely “insufferable”.

The trials and tribulations of those frontier naturalists always seem to make for good reading; that they not only persevered, but continued to gather new information on birds inspires awe. Here is Woodhouse, suffering from malaria in Texas, bitten on the hand by a rattlesnake in New Mexico, and shot in the leg by an Indian’s arrow on the Colorado River; such things tend to put current day hardships—like computer crashes—into perspective. Often it seems that most everybody in the southwest was suffering from some sort of fever most of the time. Thomas Say not only persevered, but continued to gather new information on birds the way he had (p. 135). But his bride watched, he accidentally strangled himself in his climbing ropes while investigating an Evening Grosbeak (Coccothaustes vespertinus) nest.

Given the large number of dates, localities, and individuals, I found surprisingly few errors. Rarely, years are confused—for example, 1887 for 1787 (p. 8) and 1954 for 1854 (p. 66). The Gadsden Treaty is sometimes attributed to 1853 and at other times to 1854. If Captain French resigned in “1856” to join the Confederate Army he was certainly ahead of the times (p. 33). I believe Acoma Pueblo and the Continental Divide are east—not west—of El Morro (p. 51). I suspect Henry’s first publication on New Mexico birds, which ran to 11 pages and contained numerous annotations, was in fact less “sketchy” than his 5-page second effort (p. 70). Abbott was Frazar’s middle name, not first (p. 150). The discovery of Worthen’s Sparrow (Spizella wortheni) in New Mexico is noted (p. 170) but the equally novel occurrence of Bumblebee Hummingbird (Aethis ellioti) in Arizona in 1896 is overlooked. Also, I was unsure of the value of the 33-page (but unpaginated) appendix, which provides an alphabetical listing of birds “relevant to the southwest,” including first observer, first collector, and describer for each species.

The 20 black-and-white illustrations perhaps are fewer than some would like (only 11 of the naturalists are pictured), but they serve to complement the work. The very fine renditions of LeConte’s Thrasher (Toxostoma lecontei) by Baird and Gray Hawk (Asturina nitida) by Ridgway remind us those were men of many talents. The photograph of F. C. Willard, literally out on a limb while investigating a Buff-breasted Flycatcher (Empidonax fulvifrons) nest, is memorable. The four maps, although small in scale, serve to orient the reader to the geography and scenes of major activity. They may even help in locating some of the seemingly endless proliferation of “forts” and “camps.”

A bibliography of almost 500 references is included. Although the list is eclectic rather than exhaustive, it is an important resource, and will direct readers to much of the primary literature, such as the railroad survey reports, the boundary survey reports, and other important documents. Also included are titles such as Steinbeck’s The Log from the Sea of Cortez, wherein Steinbeck muses that Xantus may not have had it so bad at Cabo San Lucas after all, judging from the abundance of illegitimate offspring he apparently left behind. Given the discussion of the discovery of the Masked Bobwhite (Culinus virginianus ridgwayi) (p. 174), I was surprised to see omitted from the references Herbert Brown’s 1884 “Bobwhite in Arizona” which had been quickly followed by none other than Ridgway’s countering paper “Bobwhite not in Arizona” (the distinctive subspecies was soon veri-
fied, and named for Ridgway). The book concludes with a thorough index that provides a helpful tool to guide readers through the maze of years, birds, naturalists, and localities.

In a brief epilog, Fischer touches on that hot-button issue—the collection of bird specimens, which really could not be avoided in a book of this nature. As with other issues that tend to be more emotional than rational, the issue is discussed but not resolved. Fischer provides Vernon Bailey’s eloquent defense of collecting (p. 200), but also suggests that new techniques and approaches may largely eliminate the need for collecting. Of course, one is left to wonder if that flock of Scarlet Ibises (*Eudocimus ruber*), reported in Arizona by Herbert Brown (p. 174), represents an important distributional record or instead one more properly placed in the realm of Cabeza de Vaca’s cities of gold; a specimen would have ended debate.

Overall, the book provides a satisfying introduction to, and overview of, the history of the discovery of birds in the borderlands, the times (both good and bad) of the curious naturalists who discovered them, and the overall human history (political and otherwise) of the region in question. I suspect there is enough here to interest the general reader, and adequate references to guide those with sufficient curiosity to more in-depth accounts of specific persons or events. It would be a useful addition to university, public, or private libraries.

Finally, a significant thread running through the book is the importance of individuals of one generation, who mentor and inspire individuals of the next. From Audubon to Baird, from Baird to seemingly everyone, and from those taught by Baird to the even larger next generation, those personal contacts from generation to generation tend to stand out as something special. It is fitting that Fischer acknowledges in the Preface the patient and kind attention bestowed upon him by his mentor, who instilled in him “a conscious awareness and lifelong enjoyment of birds.” —Sartor O. Williams III, *Southwest Natural History Institute, 1819 Meadowview Dr. NW, Albuquerque, New Mexico 87104-2511, USA. E-mail: sunbittern@earthlink.net*

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**Review of Saving Migrant Birds: Developing Strategies for the Future**

John Faaborg. 2002. University of Texas Press. Austin, Texas. xvi + 226 pp., 11 photos, 21 figures. Paper, ISBN 0-292-72548-5, $22.95. Hardcover, ISBN 0-292-72544-2, $50.00. — *Saving Migrant Birds* is an often witty and consistently provocative look at the scientific evidence that caused widespread concern for the plight of Neotropical migratory birds and led to the development of the Partners in Flight (PIF) bird conservation initiative. Told through the eyes of John Faaborg, an esteemed avian ecologist, the book questions whether Neotropical migrants are indeed in dire need of conservation attention and whether the response by the conservation community (i.e. PIF) was truly warranted. Faaborg does, however, go on to suggest that the future of bird conservation and our ability to thwart new threats to migratory bird

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**Voices of New World Parrots**

Bret M. Whitney, Theodore A. Parker III, Gregory F. Budney, Charles A. Munn, and Jack W. Bradbury. 2002. Macaulay Library of Natural Sounds, Cornell Laboratory of Ornithology, Ithaca, New York. $39.95. — This attractive three CD set presents high-quality recordings of the vocalizations for 140 species of parrots found in the Caribbean, Central and South America, representing nearly all the species inhabiting the New World. Even though parrots are celebrated for their abilities to mimic human speech, few ornithologists would be likely to purchase this CD to listen to the sounds of parrots calling in the wild, which are more raucous than melodious. Vocalizations, however, are an important tool in parrot research, particularly for conducting censuses and population surveys, because many species are detected and identified much more readily from calling individuals than from sighted birds. These CDs will be incredibly useful for learning parrot calls by anyone initiating field surveys. In addition to clear recordings, the CDs are accompanied by a 54-page booklet that presents very useful information on field identification of parrots including summaries of flight behavior, flock size, roosting habits, and flight silhouettes by genera. Potential research questions and techniques for making field records of parrot vocalizations are also discussed. In addition to its scholarly value, I expect this work to be an important and useful contribution for those involved in conserving parrots, which are among the most threatened families of birds due primarily to habitat destruction and harvest for the pet trade. — Steven R. Beissinger, Department of Environmental Science, Policy and Management, University of California, Berkeley, California 94720-3110 USA. E-mail: beis@nature.berkeley.edu
populations will certainly be helped by the research, communication, coordination, and bird conservation planning that have resulted since PIF’s inception. The author does an excellent job with the subject matter, providing a clear explanation of how the science that is guiding much of bird conservation today developed. Sprinkled throughout are many anecdotes of how he, his students, and closest colleagues continually reviewed and questioned evidence that derived from their own research, as well as that of others; these provide a refreshing “insiders” look at scientific scrutiny at play.

The book begins with a discussion of the evidence of declines in migratory bird populations in late 1980s, and examines both the strengths and weaknesses of the Breeding Bird Survey, Breeding Bird Censuses, banding studies, radar ornithology, and other sources of trend information. Subsequent chapters discuss mechanisms that can affect Neotropical migratory bird populations during the breeding season as well as in migration and on the wintering ground. Issues associated with the breeding grounds are presented in an historical sequence, beginning with the island theory of biogeography and its original application to mainland systems, the discovery of area-sensitivity and species-area curves, and edge effects. Faaborg moves from there into a detailed description of source–sink dynamics and the evidence that populations are regulated at a landscape scale.

The section on breeding-bird ecology is followed by a chapter on modern management practices. Much of what is presented here is at the heart and core of PIF bird-conservation plans that Faaborg later describes as “state of the art.” Included are important concepts regarding habitat quality and quantity; the need to protect large landscapes that serve as population “sources”; and the value of forest management, including some amount of clearcutting, which appears to provide important postbreeding habitat for forest-breeding birds.

The chapters on wintering ecology and population limitations in winter are equally well-developed, covering resource abundance and habitat selection, interspecific competition, social structure, and related constraints that can affect fitness. Explanations of the logistical difficulties associated with attempts to measure survivorship and fitness of migratory birds give the reader a feel for some of the challenges that researchers face. A relatively brief chapter on migration ecology addresses the high energetic demands of birds in transit, questions whether there actually has been a reduction in stopover habitat in recent decades, and describes various natural and unnatural barriers Neotropical migrants can encounter.

After careful consideration of the research and trend data to date, the author concludes that “we no longer should be concerned with widespread declines in large numbers of Neotropical migrant bird species” and challenges whether widespread population declines ever really warranted the massive response by the conservation community. He fails to mention, however, that PIF quickly began to move away from looking only at population trend as a reason for concern, and that within a couple of years of PIF’s inception, had developed a species prioritization scheme that included seven parameters that relate to a species’ vulnerability to extinction. Population trend is only one of those; the others are global abundance, global extent of breeding and nonbreeding distributions, threats during breeding and nonbreeding periods, and the importance of an area under consideration for conservation of the species (Hunter et. al. 1993a). That prioritization process was continually refined through the 1990s (Carter et. al. 2000) and is still undergoing careful scrutiny and revision as a species assessment tool for all landbirds, both resident and migrant, in the northern hemisphere (K. Rosenberg pers. comm.).

Faaborg then goes on to say that at the time PIF was developed, nearly all the concern was focused on migrants that lived in forests, and now he feels the most convincing data about actual widespread declines have come from birds associated with grasslands. There is a further implication that PIF did not—and may still not—be giving grassland birds the conservation attention they deserve. Although he is correct about the initial focus being on forest-breeding Neotropical migrants, by the first PIF conference at Estes Park, Colorado, in 1992, the prioritization scheme mentioned above was considering a much broader avifauna than forest-breeding Neotropical migrants and began to highlight at least some grassland and grass–shrubland species as priorities for conservation action (Carter and Barker 1993, Hunter et. al. 1993b, Smith et. al. 1993, Thompson et. al. 1993). By the mid-1990s, when the first PIF national and regional coordinators were hired to develop bird-conservation plans for the United States, suites of priority grassland and grass–shrubland breeding bird species were emphasized in every planning unit with manageable populations (Pashley et. al. 2000), and many notable conservation efforts on behalf of grassland birds are now underway.

Despite questions of whether declines of forest-breeding Neotropical migrants warranted the PIF response in the first place, Faaborg praises PIF for the role it has played and continues to play in bird conservation. He notes that PIF served as a strong impetus to getting biologists and other staff from various conservation agencies and organizations communicating in ways that had never been achieved before; promoted a new emphasis on nongame birds; fostered and focused research on mechanisms that can cause bird population declines; and helped to bridge the gap between research and management. He also praises the proactive efforts of PIF to “keep common birds common” and explicitly states that “PIF’s state-of-the-art
conservation programs... will work to save migrant birds not only now but well into the future, when the many potential limiting factors we have discussed in this book will eventually be at work.”

The final chapter, “Partners in Flight: How it Works and How You Can Help,” describes the variety of entities, agencies, and organizations that constitute the PIF community and suggests ways the reader might become involved with the initiative. John Fitzpatrick (2002) recently made a more direct call for participation by American Ornithologists’ Union members in both PIF and the North American Bird Conservation Initiative and this book also provides an overview of the importance of those programs to conservation. A few changes in PIF infrastructure have taken place since its inception and a new PIF continental conservation plan and strategic plan are now being developed. Interested readers should visit the PIF website for the most current information about Partners in Flight (www.partnersinflight.org). One notable change since Saving Migrant Birds was published is that the PIF Regional Coordinator positions are no longer being funded and those staff members have had to move on to other positions.

Saving Migrant Birds should be easily understood by any biologist, including those who are not ornithologists by training. It would be of great help to biologists and planners working within agencies and organizations involved in the implementation of PIF plans who seek to understand the biology that underlies many of the recommendations therein. Although I also would recommend it to amateur bird watchers with a serious interest in conservation, I think it would be too technical for the casual birdwatcher despite the author’s relatively casual writing style. The book belongs in all university libraries as well larger community libraries and the personal collection of those with a serious interest in bird conservation.—JANE A. FITZGERALD, 8816 Manchester, Suite 135, Brentwood, Missouri 63119, USA. E-mail: jfitzgerald@abcbirds.org

LITERATURE CITED


