

## BOOK REVIEWS

EDITED BY JEFFREY S. MARKS

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**The Peregrine Falcon.** By Derek Ratcliffe. 1993. 2nd edition. T. & A.D. Poyser, London, U.K. United States edition by Academic Press, San Diego, CA. xxxiii + 454 pp., 57 photos, 4 color plates, 22 figures, 31 tables. ISBN 0-85661-060-7. Cloth, \$39.95.—In 1980, Derek Ratcliffe came out with the first edition of *The Peregrine Falcon*. The appearance of the second edition invites a comparison between the two because so much has happened in those intervening years. I was privileged to review the first edition (*Nature* 288:519–520). In that review, I remarked “The book is truly the definitive work on a species that has become a *cause celebre* for the environmentally conscious.” While there is now another “definitive” book (*Peregrine Falcon Populations: Their Management and Recovery*, by T.J. Cade et al.) to vie for that label, the second edition of Ratcliffe’s book has nonetheless enlivened and heightened the discussion concerning the environmental issues exemplified by the peregrine falcon (*Falco peregrinus*). It is still one of the definitive works on peregrines. Another review of Ratcliffe’s first edition, and one that gives a more extensive critique, was by F. Prescott Ward (*J. Wildl. Manage.* 45:1084–1086). As Ward pointed out, the book was more properly a book about the peregrine in the British Isles than about peregrines as a species overall. So it is with the second edition, although this one contains some major revisions reflecting not only the status change in the peregrine in the British Isles since 1980, but also the entire pesticide issue and population trends worldwide. New material notwithstanding, Ratcliffe’s book title would have conveyed more precisely the information it contains were it along the lines of “Biology of peregrines in the British Isles: with comments from elsewhere over its range.” (The same comment applies equally well to the other T. & A.D. Poyser books on raptors, viz. *The Kestrel*, *The Hen Harrier*, *The Sparrowhawk*, and *The Barn Owl*.)

The changes and increases in information in the second edition are reflected in its size. The first edition contained 416 pages, whereas the second has

454 pages. In the 16 chapters of this new edition, several increased by only a single page, and one, “Ecological Relationships with Other Birds,” remained the same length. Several chapters had either a major increase in data or more involved discussions of the data as indicated by page increases in the following chapters: “The Peregrine’s Country” (4-page increase), “Distribution and Numbers in Britain” (3 pages), “Food and Feeding Habits” (5 pages), “Nesting Habits” (5 pages), “The Breeding Cycle. Laying and Fledging” (11 pages), “Movements and Migration” (5 pages), and “The Pesticide Story” (5 pages). In addition to the aforementioned chapters, there are also chapters entitled: “The Peregrine and Man,” “Population Trends in Britain,” “The Breeding Cycle: Pairing and Courtship,” “Breeding Density and Territory,” “Population Dynamics and Regulation,” “Other Enemies,” “Appearance, Form and Geographical Variation,” and “Conservation and the Future.”

In the preface, Ratcliffe indicates that two key events have made this second edition justified. First has been the remarkable and continuing increase in numbers of falcons in Britain and Ireland and the dramatic recovery elsewhere in the world. Second is the large amount of new material published on the species. Ratcliffe further indicates that the most important additions to knowledge of the peregrine’s natural history in the British Isles concern population dynamics, movements, and nesting adaptations. Much of the data presented did not result from Ratcliffe’s original investigations in the British Isles but represent a compilation of numerous research reports.

In the first edition, it was estimated that Britain and Ireland together contained around 1050 pairs just prior to World War II. This figure was taken to represent a “baseline” number for carrying capacity in that region. By 1991, it was estimated that at least 1600 pairs occurred in those same areas. Britain and Ireland combined are about the same size as the state of New Mexico; 314 300 km<sup>2</sup> compared with 314 925 km<sup>2</sup>, respectively. The density, then, in that little corner of Europe is truly remarkable. (New Mexico does not contain “suitable” peregrine habitat throughout the state and has about

55 locations that peregrines are known to have occupied at some time; there may never have been more than 100–300 pairs during the best of conditions.) Recovery in the British Isles has not been uniformly distributed, however, even in “good” habitat. Ratcliffe draws attention (page 71) to a puzzling pattern: no reoccupation in some areas, colonization of areas not known to have had peregrines historically, lower local numbers in 1991 than in 1981, and enormous increases over large regions (e.g., 173% over 1930s baseline numbers in the Lakeland district). Ratcliffe reckons that the doubling of numbers in some regions since the early 1980s represents a combination of three factors: increased observer effort, reduced gamekeeper persecution, and occupation of completely new territories. Additionally, part of the overall increase in falcons throughout the British Isles may have resulted from an increase in a major prey item, the rock dove (*Columba livia*). Between 1977 and 1991, the number of racing pigeon bands issued increased from 1.5 to 2.5 million. Ratcliffe suggests that, based on the prey availability-peregrine density relationship, food supplies are available to support a substantial additional increase in falcon numbers. The population increase since 1980 has been accompanied by increased use of “marginal” cliffs (earlier thought to be unacceptable) and other structures such as stone quarries, especially in Ireland, where 60–65 quarries were occupied in 1991. Who can predict what level this population will reach? At whatever point it finally stabilizes, however, it will certainly remain one of the densest populations in the world.

Banding data have produced some interesting results. Between 1921 and 1990, 357 falcons have been recovered of the 4476 that were banded. There is movement between Britain and Ireland, although none of the banded adults has been recovered farther than 200 km from their banding sites. The only peregrine recovery from a British or Irish breeding site outside of those two countries is of one moving from northern Ireland to Portugal. Some peregrines banded in Scandinavia have wintered in the British Isles, but there is no movement in the opposite direction with British-raised falcons. The species is remarkably sedentary considering the geographic size and location of that region.

This new edition of *The Peregrine Falcon* has a wealth of interesting material, even though it applies principally to that part of Europe mentioned. Anyone interested in the peregrine, especially post-pes-

ticide population trends, should have this book. The reasonable price makes it a good purchase.—**Clayton M. White, Department of Zoology, Brigham Young University, Provo, UT 84602 U.S.A.**

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**The Black Eagle: A Study.** By Valerie Gargett. 1993. Academic Press, San Diego, CA. 279 pp., 7 color plates, 70 color photographs, 4 black-and-white photographs, 53 figures, 60 tables. ISBN 0-12-275970-2. Cloth, \$59.95.—This well-written and well-illustrated book presents the results of a monumental 20-yr study (1964–1983) of the life history of the black (Verreaux’s) eagle, *Aquila verreauxii*, in Zimbabwe. This study ranks up there with other great single-species studies such as those by Margaret Morse Nice on the song sparrow (*Melospiza melodia*) and Ian Newton and colleagues on the Eurasian sparrowhawk (*Accipiter nisus*). Besides being well written and chock full of information, the book is nicely illustrated with color plates and many color photographs. The delightful and accurate pen-and-ink drawings by Rob Davies are, by themselves, reason enough to buy the book.

In the Introduction, Gargett explains how the study began and outlines various research methods. The study area in the Matobo Hills of Zimbabwe is described in detail in Chapter 1. Chapter 2 describes in equal detail the black eagle itself, including information on distribution in Zimbabwe, plumages, molt, vocalizations, display flights, and sex differences in wing shape. The meat of the book, Chapters 3 through 9, contain detailed descriptions of various aspects of reproduction, including pairing, courtship displays, nest sites, incubation, reproductive success, hunting, and prey species. Chapter 10 discusses dispersal of young birds, and Chapter 11 provides data on annual survivorship and longevity. A wonderful description of the project’s careful study of obligate siblicide, the so-called Cain and Abel syndrome, is presented in Chapter 12. Chapter 13 is a personal account of the author’s relationship with two female

eagles. Chapters 14 and 15 give accounts of other raptors in the study area and their relationships with black eagles. The final chapter is a look into the future of black eagles in the Matobo Hills.

The three appendices contain a list of the 88 individuals who participated in the research, a discussion of the problems of egg collecting in the Matobo Hills, and data from the continuation of the eagle breeding survey from 1984–1988 (during which the author was absent from Zimbabwe). One of the participants was later convicted of collecting eagle eggs. After stealing the eggs, he had falsified data on the nests he was observing! The book ends with a glossary and bibliography. The former is necessary in order for non-Africans to understand terms such as “dassie,” the local name for a hyrax that is the main prey of black eagles.

This book is so attractive that it could easily be misconstrued as just another coffee table book. But it is much more than that—it is a detailed account of the life history of a raptor that will serve as a model for single-species monographs. *The Black Eagle* is a must for all serious raptor biologists, especially those who study eagles. I recommend it also for any non-biologists with a serious interest in birds of prey and for anyone who collects raptor art; the drawings by Rob Davies are superb.—**William S. Clark, 7800 Dasset Court, Apartment 101, Annandale, VA 22003 U.S.A.**

dust cover does contain “An Artist’s Guide to Understanding Raptors.”

The reference material presented in this large format book consists of hundreds of close-up color photographs of live raptors and specimens, a few photos of raptors in the wild, many detailed illustrations, and accompanying explanations and descriptions in text and captions. Many of the live raptors were photographed from multiple aspects to show different details.

Seventeen of the 34 species of North American diurnal raptors are covered; these include all three accipiters, osprey (*Pandion haliaetus*), both eagles, five falcons, and six buteonines. One widespread buteo, the Swainson’s hawk (*Buteo swainsoni*), is not covered, whereas the Harris’ hawk (*Parabuteo unicinctus*), with a limited distribution in North America, is covered. Also omitted are vultures, kites, and the northern harrier (*Circus cyaneus*), as well as the peripheral species from the southern United States.

The first chapter is entitled “What is a Raptor?” and is a general description of diurnal birds of prey. This is accomplished with a combination of many close-up photos, detailed drawings with dimensions, and descriptions of the eyes, feet, nostrils, skeletons, and other anatomical details. Next follow 17 chapters, one for each of the species described. The coverage of each species is very detailed for at least one age or sex category but does not include all variations for any species. For most species, only the light-morph adults are illustrated and described. The next section is entitled “Techniques for the Artist and Carver” and includes short chapters on “Painting the American Kestrel,” “Sculpting a Raptor Head,” and “Making Eyes.” The last chapter, called simply “Gallery,” consists of color photographs of eight carved raptors. Each carving is shown in two or three photos. The carvings are stunning, with fine details noticeable and accurate.

The text, for the most part, is useful and accurate, but the author’s lack of experience with raptors results in many errors of omission, as well as a few outright mistakes. An example is that the female merlin (*Falco columbarius*) is not “slightly larger,” as written, but considerably larger than the male. It would have been helpful to mention that the adult rough-legged hawk (*Buteo lagopus*) in the photos is a male. A drawback of the book is the steep price; however, considering the vast amount of reference material in the many photos and drawings, it should be worth the price for artists and carvers.

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**Birds of Prey.** By Floyd Scholz. 1993. Stackpole Books, Mechanicsburg, PA. 318 pp., 470 color photographs, 39 figures. ISBN 0-8117-0242-1. Cloth, \$59.95.—This is yet another book with the simple and general title “Birds of Prey.” There is a nice photo of a golden eagle (*Aquila chrysaetos*) head on the dust cover. One must look inside and read the introduction to realize that the purpose of this book is to provide detailed reference material on diurnal birds of prey for bird carvers. The back of the book’s

I recommend this book for bird carvers and artists who aspire to create accurate, detailed works of art depicting birds of prey. It will serve equally well as a reference source for taxidermists. It should be considered as a helpful reference work for raptor rehabilitators, raptor biologists, field guide illustrators, falconers, and others with an interest in diurnal birds of prey.—**William S. Clark, 7800 Dasset Court, Apartment 101, Annandale, VA 22003 U.S.A.**

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**Raptor Conservation Today.** Edited by B.-U. Meyburg and R.D. Chancellor. 1994. Proceedings of the IV World Conference on Birds of Prey and Owls. Pica Press, East Sussex, U.K. Distributed in the United States by Buteo Books, Shipman, VA. xiv + 799 pp., numerous figures, tables, and line drawings. ISBN 1-873403-33-X. Paper, \$49.95.—The IV World Conference on Birds of Prey and Owls was held in Berlin, Germany from 10–17 May 1992. Organized by the World Working Group on Birds of Prey and Owls, the conference was attended by more than 500 participants from dozens of countries. Of the 240 oral and poster presentations, 100 were published in the proceedings. This volume of material, which is both enormous and diverse, precludes a detailed review.

The first paper is the keynote address by Claus König on taxonomic problems in New World *Glauucidum* and *Otus*. Next are 99 papers in 10 sessions on the following subjects: "Population Studies: Aspects of Long-Term Changes" (nine papers); "Rare and Declining Raptors" (23); "Tropical Rain Forests and Raptors" (10); "Trapping, Marking & Radio Tagging" (10); "Biology & Conservation of Large Falcons" (six); "Reintroductions" (six); "Population Ecology of Owls" (nine); "Extirpated, Rare or Lesser Known Owls" (four); "Systematics & Taxonomy" (five); and "Environmental Contaminants and Raptors" (17). The book concludes with a list of resolutions on various conservation concerns. The

cover photograph of a Steller's sea-eagle (*Haliaeetus pelagicus*) in flight is stunning.

All of the papers are in English. As one would expect, quality varies markedly, with contributions ranging from brief status summaries to 12-page research papers packed with original data. The sessions on rare and declining raptors and environmental contaminants are especially noteworthy for their breadth of coverage. The symposium on population ecology of owls marks the first time that a major session at a World Conference has been devoted to nocturnal raptors. I suspect that much of the information in the proceedings has heretofore been unavailable to North American biologists, but there is at least one replicate publication (the paper on distribution of Mexican owls appeared in similar form in *J. Raptor Res.* 27:154–160). Considering that English was not the first language for many of the contributors, the editing is impressive. So, too, is the range of topics considered. Truly, there is something that will appeal to anyone who studies raptors. This book is a must for university libraries and for those whose interest in raptors extends beyond the borders of their respective countries.—**Jeff Marks, Cooperative Wildlife Research Unit, University of Montana, Missoula, MT 59812 U.S.A.**

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**The Birds of North America.** Edited by A. Poole, P. Stettenheim, and F. Gill. The Academy of Natural Sciences, Philadelphia, PA and the American Ornithologists' Union, Washington, DC. Individual accounts are now available from the American Birding Association, P.O. Box 6599, Colorado Springs, CO 80934-6599 U.S.A. Accounts have been published for the following raptors:

- No. 1 **Barn Owl**, by C.D. Marti
- No. 10 **Snowy Owl**, by D.F. Parmelee
- No. 30 **White-tailed Hawk**, by C.C. Farquhar
- No. 41 **Great Gray Owl**, by E.L. Bull and J.R. Duncan

- No. 42 **Northern Saw-whet Owl**, by R.J. Canning
- No. 44 **Merlin**, by N.S. Sodhi, L.W. Oliphant, P.C. James, and I.G. Warkentin
- No. 52 **Red-tailed Hawk**, by C.R. Preston and R.D. Beane
- No. 61 **Burrowing Owl**, by E.A. Haug, B.A. Millsap, and M.S. Martell
- No. 62 **Short-eared Owl**, by D.W. Holt and S.M. Leasure
- No. 63 **Boreal Owl**, by G.D. Hayward and P.H. Hayward
- No. 75 **Cooper's Hawk**, by R.N. Rosenfield and J. Bielefeldt
- No. 93 **Flammulated Owl**, by D.A. McCallum