

the book excels over most other field guides. Periods of hibernation, emergence, breeding, egg-laying, hatching, and larval transformation are defined for Ontario populations. Courtship rituals, aggressive displays and other interesting aspects of animal behaviour are frequently described, often with amusing anecdotes based on the author's personal experience.

Some interesting aspects of natural history are conspicuous by their absence from the discussion (e.g., neoteny in mudpuppies, mechanisms of orientation in spotted salamanders, aging and growth annuli in turtles, how to sex snakes, their specialized jaw apparatus, scent trailing, and caudal display in ring-neck snakes). However, it is impossible to provide comprehensive natural histories of all species in a field guide format. There

is enough natural history to wet the reader's appetite for more.

The illustrations are not in colour and are sometimes lacking in diagnostic detail. However, the text compensates with a verbal description of key identifying features for adult and juvenile animals. Larval amphibians are not described sufficiently to permit identification; however, such microscopic detail would not likely be appreciated by general readers.

In summary, the book is well written, informative and likely to stimulate the amateur natural historian to a keen interest in Ontario herpetofauna.

DONALD R. HART

Beak Consultants Limited, 14 Abacus Road, Brampton, Ontario L6T 5B7

Handbook of North American Birds, Volumes 4 and 5: Diurnal Raptors

Edited by Ralph S. Palmer. 1988. Yale University Press, New Haven. Volume 4: vii + 433 pp., illus.; Volume 5: v + 465 pp., illus. U.S. \$80.00 set.

These two long-awaited volumes continue a series that commenced in 1962 with a volume on loons, grebes, totipalmate swimmers, the heron-ibis-stork group, and flamingos. The second two volumes, on waterfowl, appeared in 1975. They are essentially a modern version of A. C. Bent's series on "life histories" of North American birds (1919 to 1968), but their slow rate of publication suggested that many decades would have passed before the series was complete, at least if continued in the same manner. At present, there are no plans to continue this series in its current format, although a planned series of "bird biographies" will partially fill the same function.

These volumes cover all species of diurnal raptors (Families Cathartidae, Accipitridae and Falconidae) reported to occur in North America "north of Mexico," but including Baja California. The Osprey is included within the Accipitridae, in agreement with the most recent checklist of North American birds. Although Hawaii is included in many North American avifaunal works because of its political affiliation, it is not North American biologically, and not covered here. Volume 4 consists of an introduction to both volumes, species accounts of North American vultures, Osprey, Bald Eagle, sea-eagles, Northern Harrier, and hawks of the genera *Accipiter*, *Buteogallus*, *Parabuteo*, and *Asturina* (including the Red-shouldered Hawk), and an index. Volume 5 consists of hawks of the genus *Buteo*, Golden Eagle, Crested Caracara, and the falcons, an index, and a composite list of literature cited in both

volumes.

Accounts of species that normally occur in North America for at least part of the year range from seven (Hook-billed Kite) to 55 pages (Peregrine) in length and cover descriptions, field characteristics, distribution, migration, numerous aspects of behaviour and biology, banding status, conservation topics, and sometimes other subjects. These accounts are North American in emphasis, but use data from throughout the species' range when appropriate. Species that have been substantiated as occurring in North America but are not regular here receive a condensed treatment of one to three pages. Two species (Eurasian Sparrowhawk and Common Buzzard) for which there were only unsubstantiated North American records are mentioned in a one-paragraph footnote each.

Palmer personally wrote many sections, and sometimes entire species accounts, but many have been co-authored by experts on the species, including Canadian residents David M. Bird, Jonathon M. Gerrard, and J. Bernard Gollop. Although initial drafts of most accounts were complete in 1981, Palmer has managed to incorporate most significant new material that appeared in major journals to about early 1986 into the text, and even mentions the extinction in the wild of California Condors, as of 19 April 1987, in his introduction.

A comprehensive account of all diurnal raptors in North America is nearly an impossible task in the 1980s, considering the rate at which new information becomes available — for example, Palmer states that over 1200 significant sources on Red-tailed Hawks exist, of which he was able to

scan 550 and cites 135, while he consulted 700 sources on Golden Eagles, and cites 242. In addition, he was aware of "at least 550 titles" of significance that appeared between the time large sections of the book were complete and the volumes were ready to go to press. Thus, the accounts necessarily omit some details and specialists on any given species will no doubt detect some errors and outdated information. Nevertheless, both volumes are jammed with information and guide the interested reader to major works and bibliographies on each species.

Most omissions and factual errors that occurred to me as I read through the books were the result of information that has been published since 1985 or in sources that are fairly obscure. For example, Dick Dekker's 1985 book, *Wild hunters*, could have added considerable behavioural and ecological points on several species in Alberta, but would not likely be known to Palmer until reviews began to appear in journals. Apart from problems with references, proof-reading errors are also relatively scarce for the number of pages covered — I detected about 20, of which the most amusing are conifer "springs" and "mudkrat".

The writing style of such compendia is rarely conducive to casual reading, and some passages can be tedious — after all, the objective is to serve as thorough a reference source as possible. However, Palmer does manage to insert some lighter phrases, such as his reference to the Sharp-shinned Hawk as "an expert — *numero uno* — at sneak attack," and his reference to the falconry literature as "Extensive, with no end in sight" or in his account of the Peregrine, "that most popular and most Propagandized of all raptors." Joseph A. Hagar's long (13 pp.) account of Broad-winged Hawk migration, almost uninterrupted by references reads more like an essay, albeit authoritative, in contrast to the same author's heavily referenced eight-page account of Swainson's Hawk migration.

Space precludes a detailed review of each species account, but a few highlights, errors and omissions that I noted follow. In addition to purely biological details, ornithologists interested in the influence of birds on culture will find much of interest in these volumes, especially in the sections on symbolism, legend, etc. under the Bald and Golden Eagles and the section on falconry under peregrines.

Conservationists will find considerable detail on effects of biocides, electrocution, and persecution. Taxonomists will be interested in the separation from *Buteo* of the Gray, Roadside, and Red-shouldered hawks into *Asturina* and in Palmer's treatment of Harlan's and Krider's hawks not as races of Red-tailed Hawks, but merely as colour variations.

Outright errors are few, but Hecht's study of Northern Harrier took place in Manitoba, not

Montana and Hatch's observation of Golden Eagles hunting a fox also took place in Manitoba, not Saskatchewan. Predation by Red-tailed Hawks on other *species* is incorrectly labelled cannibalism, a term correctly applied only to intraspecific predation. A one-page section on food habits of Rough-legged Hawks headed "siblicide" contains only two lines on that topic. The reference to the Turkey Vulture in the West Indies as "spotty" in distribution with no mention of Cuba is misleading, as they are among the most conspicuously abundant birds there (Wotzkow and Wiley. 1988. *Journal of Raptor Research* 22:3-7; personal observation), while the statement that the North American race of the Osprey stays there only a short time after arriving in September, based on work by Barbour in the 1940s, is outdated. The catalogue of Cuban birds published by Garrido and Garcia Montana in 1975 lists them as present from August through May, and in two winters of field work, we saw them more frequently than the resident race, at least in the Cienega de Zapata.

Jackson discusses the harm that bands do to the legs of vultures and mentions that patagial (wing) tags are now used instead, but oddly does not mention that colour markings have been shown to affect their social behaviour, even though some of the evidence for this was published in a book that he co-edited. Although Palmer discusses possible confusion between Gyrfalcons and Peregrine Falcons, he does not mention that Gyrfalcons can be confused with Northern Goshawks in flight, a point often made by raptor enthusiasts (e.g., Dekker. 1977. *Alberta Naturalist* 7:1-5), but sometimes overlooked by other birdwatchers. Whether or not earlier nesting by Great Horned Owls helps them avoid nest competition with Red-tailed Hawks, this chronology is not restricted to warmer climates — Winnipeg birders have long begun to look for the "horns" of this owl in traditional nests by mid-February.

In addition to providing a reasonably current summary of current knowledge, a vital function of this kind of work is to guide the reader to additional literature. Palmer faced a mammoth task in trying to point the way to a vast body of literature that would take another large volume just to list. He has done a credible job of this by combining all references from both volumes in one crowded section in volume five, relying heavily on major review papers where possible, omitting the titles of papers published in journals, and listing papers in symposia under the editor(s) of the symposia.

A few references are too vague to be helpful. For example, for details on the Eurasian race of Rough-legged Hawk he advises the reader to consult European literature, rather than providing a key reference or two, and in several places a good

review paper is followed by "and more recent data" or similar unhelpful phrases. A few key references are omitted — for example, the California Condor's former distribution to southern British Columbia is noted, but Wilbur's 1983 summary of its occurrence in the Pacific Northwest (*Auk* 90: 196-198) is not cited. More importantly, there are numerous disagreements between the text and literature cited on spellings of names, numerous omissions of "a" or "b" required to distinguish between two references, and at least 117 references cited in the text are not listed in the literature section.

Birds in Ireland

By Clive D. Hutchinson. 1989. Poyser (distributed by Buteo Books, Vermillion, South Dakota). 215 pp., illus. U.S. \$55.

Ever since the Pope gave Henry VIII sovereignty over Ireland there has been strife. This is the mental image we have; promoted by endless television footage of bottle throwing youths and tear-gas lobbing soldiers. But there is another side to this troubled island. The rolling countryside, constantly washed by an encircling sea and bathed by mist and rain, really is emerald green and has a fascinating natural history. This book is about that other Ireland.

But even here there is an enigma; one the author attempts, yet never succeeds in explaining. For Ireland's mystery lies not in the birds that have been seen but in the ones that have not. Why, for example, are there so many records of North American ducks and yet not one for Barrow's Goldeneye (a bird which breeds in the much closer country of Iceland and which has occurred in nearby Britain)? Why don't the common British woodpeckers, chickadees (tits) and nuthatches breed anywhere in the Irish countryside. There are certainly enough woodlands, both ancient and reforested, to support some level of activity. The author reviews the current theories but I found none were satisfying, alone or in combination. We clearly do not understand the complex mix of factors that meet these species requirements.

The North American reader will be amazed at the number of familiar birds that occur as annual vagrants (or nearly so). Green-winged and Blue-winged teal, Ring-necked Duck, White-rumped, Pectoral, Semi-palmated and Buff-breasted sandpipers, Wilson's Phalarope, and at least a warbler or two enliven the damp Irish fall. These are joined by wanderers from eastern and northern Europe to give Ireland an impressive list of migrant rarities. The most startling entry is of a specimen of an Eskimo Curlew spotted by a very alert and knowledgeable individual in a Dublin poulterer's shop in 1870!

Ireland has some important breeding records, particularly seabirds. The author has given greater

In spite of its flaws, this two-volume work is a gold mine of information and will long be *the* place to start a search for data on any North American diurnal raptor species. Palmer and his co-authors have not only provided a detailed summary of current knowledge and an important guide to further literature, but have also emphasized points needing further research. Like the previous three volumes, these will be much consulted and much cited.

MARTIN K. MCNICHOLL

218 First Avenue, Toronto, Ontario M4M 1X4

emphasis to these birds in his text, providing, where possible, colony size and temporal variations. It also has some significant wintering populations of shorebirds and geese. This gives Ireland a special position and an important responsibility in Europe. In a chapter on conservation, the author explains how the Irish have met those responsibilities and shows what challenges they now face.

The book also has explanations of the factors affecting the distribution of birds and the recent changes in status. These introductory materials serve to set the stage for the species accounts (which occupy 75% of the text). To support the data presented there is an extensive bibliography.

The author has effectively used maps, tables and histograms to illustrate key points. I particularly liked his use of histograms to show the seasonal distribution of vagrants. He has also included black-and-white photographs of the habitat at some of the important locations. Although some pictures include birds, this is not their primary intent. The bird illustrations are instead provided by John Busby. These appear in the form of field sketches, overlaid by grey washes. Although they have obviously been done quickly and simply, they show an extraordinary talent. Only one who has a thorough knowledge of the birds, plus artistic ability, could so cleverly capture with so few lines the form and movement of his subject. Those of us who try to make field sketches will undoubtedly be envious.

This book is well organized, attractively laid out, and written in a smooth and flowing style. The author has carefully chosen his criteria for the selection or rejection of information and records to give the book a good balance. Each reader should get a comprehensive and valid portrait of Ireland's birdlife from their own armchair. This is a good purchase for everyone, Irish or otherwise, and will stand as a major reference for 10 to 20 years to come.

ROY JOHN

8 Aurora Crescent, Nepean, Ontario K2G 0Z7



McNicholl, Martin K. 1990. "Handbook of North American Birds, Volumes 4 and 5: Diurnal Raptors, ed. Ralph S. Palmer [Review]." *The Canadian field-naturalist* 104(3), 499–501. <https://doi.org/10.5962/p.356425>.

View This Item Online: <https://www.biodiversitylibrary.org/item/106989>

DOI: <https://doi.org/10.5962/p.356425>

Permalink: <https://www.biodiversitylibrary.org/partpdf/356425>

Holding Institution

Harvard University, Museum of Comparative Zoology, Ernst Mayr Library

Sponsored by

Harvard University, Museum of Comparative Zoology, Ernst Mayr Library

Copyright & Reuse

Copyright Status: In copyright. Digitized with the permission of the rights holder.

Rights Holder: Ottawa Field-Naturalists' Club

License: <http://creativecommons.org/licenses/by-nc-sa/3.0/>

Rights: <https://biodiversitylibrary.org/permissions>

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at <https://www.biodiversitylibrary.org>.