

Norfolk 1P24 2PU, England (Four Bermuda Petrels [Cahows] prospecting nest sites on Nonsuch Island, Bermuda, in 2008 were identified by their tags as fully grown birds that were introduced as chicks there in 2008 and at least one pair bred successfully.) MKM

**Note:** Thanks to Phillip S. Henderson for a copy of the *Ethology* paper abstracted in this compilation. We apologize to abstractor W.D. "Bill" Loughman

that four proof-readings of the galleys of *NABB* 36(3) [two by the Literature Editor and one by each of the other editors] failed to notice that the e-mail gremlins changed his initials to WDS and his surname to Laughman, both of which were correct in the original manuscript. Thanks to Kay Loughman for pointing out these errors.

GLG = Glenn L. Gabanski

PL = Peter Lowther

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## Books

**DO HUMMINGBIRDS HUM? FASCINATING ANSWERS TO QUESTIONS ABOUT HUMMINGBIRDS.** By George C. West and Carol A. Butler. 2010. Rutgers University Press, New Brunswick, New Jersey and London, England. xviii + 187 pp. soft cover.

One of my first bird books, given to me as a birthday present by an aunt in 1959, was an introduction to birds and ornithology by Allan D. and Helen G. Cruickshank (1958) written in the style of a series of questions, followed by answers, a reference that I continue to find useful decades later. The current book is the fourth in a series of modern-day equivalents on butterflies, bats, bees and now hummingbirds. Carol A Butler has co-authored all four, in this case collaborating with George C. West, well known to readers of *NABB* for numerous drawings scattered through many pages for several years. In the preface, we learn that West had banded more than 14,000 hummingbirds in southeastern Arizona by the time the book was written, amply qualifying him to co-author the book and guaranteeing that its focus would be on hummingbirds as seen through the eyes of a bander. In his acknowledgments, West reveals that Ruth Russell, long associated with the Western Bird Banding Association, was responsible for adding hummingbird banding to his bander training expertise.

The book is divided into nine chapters, four appendices, 16 pages of references and an index. The first chapter consists of nine questions and answers on "hummingbird basics," defining and classifying hummingbirds, as well as noting their

range in size and longevity. The second chapter covers 17 questions on "systems and senses," covering foraging, food, digestion, bill lengths, energy and the various senses, including a summary to date of growing evidence that the sense of smell is more important in at least some hummingbirds and other birds than believed previously and the question asked by the book's title. Nine questions cover "feathers and bones," including aspects of flight and color, in chapter 3. The fourth chapter, "Reproduction," covers aspects of courtship, mating, nesting and rearing young in 14 questions. Flight and migration are discussed in the five questions and answers of chapter 5. Thirty-four color photographs of 33 species enhance the center of the book. "Dangers and defenses," including predators, parasites, diseases and both natural and human environmental hazards are covered in eight questions and answers in the sixth chapter. The seventh chapter covers "attracting and feeding" in ten questions. Chapter eight is labeled "Identifying and photographing," but its seven questions also include captivity and a table of hummingbird occurrences in North America—regular parts of the ranges of those that occur regularly plus some extralimital locations (though a footnote indicates that "hundreds of scattered records" are not included). The ninth and final chapter, "research and conservation" covers the degree of threatendness of hummingbirds, their economic importance through pollination and ecotourism, and four questions on the purposes and methods of banding. The appendices cover garden plants attractive to hummingbirds, some places to see live hummingbirds in captivity, hummingbird organizations and a selection of references and web-sites. The

reference sources for the answers to many of the questions, a seven-page index and brief notes on the authors close the book. The general reference list omits the classic compilation of knowledge of North American hummingbird species by Bent (1940), presumably since all the more recent hummingbird accounts in the "Birds of North America" series are listed. Another general account of North American species (True 1993) appears not to be listed, but at least two other general North American hummingbird accounts by P.A. Johnsgard and S.L. Williamson that are omitted from the general reference list are included in the reference sources for specific questions. Naturalist parents or grandparents of small children may also have wished for the inclusion of literature directed at interesting younger readers in these splendid birds, such as the booklet by Swanson (2002).

The answers to many of the questions, although focused primarily on hummingbirds, are often appropriately contextualized in more general aspects of ornithology or biology generally, with boxes often expanding on specific aspects of the question. For example, a question on the distribution of hummingbirds contains a list of species found on each of the Caribbean islands and the answer to a question on hummingbird evolution has a box in its midst on co-adaptation, primarily between hummingbirds and pollinating plants. In addition, when an answer to a specific question is not yet fully known, the extent of our knowledge to date is specified, followed by examples of findings on such other birds as thrushes or wood-warblers that suggest avenues of research that may reveal more detail on how the topic applies to hummingbirds.

Banding features prominently throughout the book in addition to the four questions of chapter 9 mentioned above. The answers to questions on longevity (Chapter 2, question 8), hybridization (Chapter 4, question 5), migration distances (Chapter 5, question 1), feeding distances (Chapter 7, question 7) and fidelity to feeders in breeding territories and migration stop-over sites (Chapter 7, question 10) are based primarily on banding data, the answer to a question on how hummingbirds

know which flowers have nectar (chapter 2, question 4) is based partly on research by Frank Gill on color-banded hermits, the portion of a question on intelligence dealing with annual returns to exact locations (Chapter 3, question 1) is based on banding data and reference to deuterium being used to pinpoint wintering areas of Vancouver Island Rufous Hummingbirds (Chapter 5 question five) exemplifies the use of biochemical techniques in banding-type research. Transmitter data on Ontario-marked warblers and Alaska-marked godwits are mentioned in Chapter 5 as exemplifying what may be possible to determine in the future, as transmitters decrease in size. The answer to a question on the number of feathers (Chapter 3, question 4) provides details on the types and distribution of feathers, with three exemplary illustrations. The final five questions of chapter three on plumage, molt, preening and color, are all of considerable interest to banders. The illustration (Figure 1) of bird topography is, of course, that of a hummingbird (a female Black-chinned). Banders will appreciate the numbering of the ten primaries in this illustration and in Figure 13, which also numbers the rectrices. The chapter on hazards includes comments on possible effects of avian diseases on banders and much of Chapter 7 on attracting hummingbirds is applicable to many banding operations.

Coverage struck me as very thorough, and although I have read extensively about hummingbirds previously, I was pleased to learn more details, such as the considerable commerce in the 1800s of shipping large quantities of hummingbird skins to Europe for making artificial flowers and other ornaments before the heyday of millinery use of egrets, terns and other feathers and bird specimens that helped stimulate the founding of major conservation societies. Although I have often read that Cuba's Bee Hummingbird is the smallest bird in the world, this book was the first to inform me that the Reddish Hermit of Guyana and Brazil shares that distinction. I would have added Ruby-throated to the list of hummingbird species "more confident around humans" (Chapter 7, question 1) given Johnson's experience with them perching on his fingers while at his feeders, as documented several years ago in *Inland Bird Banding News*. The

advice on p. 110 to keep feeders up beyond freezing when a vagrant hummingbird is known or suspected to be lingering in a specific area should apply to all Anna's Hummingbirds in the northern parts of their expanded range, from which they do not migrate. Some observers have designed specially heated feeders for these wintering birds. I agree strongly with the authors' admonition against red dye in hummingbird feeders (e.g., Chapter 7, question 5). Although hummingbirds seem to be attracted to red flowers more than those of other colors, the flowers that they frequented most in a White Rock, BC, garden that I used to frequent were a greenish-yellow flowered *Nicotiana* species.

Although the authors have obviously consulted scientific publications thoroughly, they explain scientific principles in terms that can be understood readily by non-scientific readers; and when technical terms are mentioned, such as inclusion of "torpor" in a question on why hummingbirds eat a large volume of food, the term is explained or defined briefly (e.g., question 3 of Chapter 2), with a cross-reference to more thorough coverage. In a comprehensive treatment, as used in this book, each reader is bound to notice a few omissions from what he or she would have included. Although I agree that hummingbirds are the birds most capable of hovering, I found Ferruginous Hawks and most terns odd omissions from the list in Chapter 1, question 1, of other birds that hover for shorter durations and the terns from Chapter 3, question 2. A more significant omission is that Anna's Hummingbirds in British Columbia, the northern end of their expanded range (Zimmerman 1973), do not migrate south, and even nest in winter (Campbell et al. 1990), unlike the more southern populations that migrate to Mexico (Chapter 5, question 5). A few details on regulations and reporting bands apply specifically to the U.S. without the Canadian equivalent. Frequent cross-referencing adds to the book's usefulness as a reference, although some figures (e.g., Figure 1) appear not to have been mentioned in the text, and a few interesting details are buried within answers to questions that would not suggest their presence—for example, the answer to the title question (Chapter 2, question 16) contains the

English translations of the common names used for hummingbirds in three other languages and information on where to report bands found on dead birds is buried in the answer to a question on rescuing injured birds (Chapter 9, question 7). I did not notice any outright factual errors and proof-reading/"typographical" errors were confined to a singular/plural miss-match (p. 15), the "gem" of Purple-throated Mountain-Gem should have been capitalized on p. 43 and a few other very minor "typos." Since both insects and birds are animals, Chapter 7, question 8, perhaps should have asked what could be done to discourage insects and mammals from visiting feeders rather than insects and "animals." In short, West and Butler have provided a fact-filled, thorough, nearly error-free text on a fascinating family of birds, written in an entertaining style—both a fun read and an excellent source of details that are known and still need to be researched on the lives of fascinating birds. I expect to consult it often.

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