

BOOK REVIEWS

Atlas of the Breeding Birds of Humboldt County, California, by John E. Hunter, David Fix, Gregory A. Schmidt, and Jude Claire Power. 2005. Redwood Region Audubon Society, Eureka. 445 pages, plus maps and illustrations. Paperback, \$30 (ISBN 0-9760380-0-5); hardback \$50.

Situated in the northwest corner of California, the state's fourteenth largest county is a significantly bird-rich area that has long attracted the attention of biologists and birders. As a measure of this importance, Humboldt County now has a comprehensive breeding bird atlas (hereafter Atlas) that covers the county's 197 breeding species in 445 pages. Although Humboldt County is easily pigeonholed as a land of continuous conifer forest and heavy logging, the picture painted by the Atlas is much more fascinating and complicated. Not only does Humboldt County sit at the crossroads of northern species (e.g., the Ruffed Grouse, Gray Jay, Black-capped Chickadee, and Varied Thrush) and southern species (e.g. the White-tailed Kite, Oak Titmouse, and Blue-gray Gnatcatcher), it encompasses numerous pockets of unexpected habitats and birds. The latter category includes Mountain Bluebirds haunting high peaks on the eastern border of the county, a surprisingly vigorous population of American Redstarts nesting along the coast, and newly discovered nesting Rufous-crowned Sparrows in a remote canyon in the southeast of the county.

The Atlas begins with extensive acknowledgments thanking the many volunteers and community organizations that made the project possible. This is followed by a long introduction that provides detailed and informative overviews and maps on the climate, ownership, and habitats in the study area. Chapters discussing methods and results are followed by 197 species accounts, then appendices that cover supplemental species, block statistics, scientific plant names, and block results for each species, literature cited, and an index.

The Humboldt Atlas appears to be a fairly rigorous effort designed in consultation with atlas veterans from other California counties and drawing heavily on methods developed for atlases in Marin, Monterey, Orange, and Sonoma counties. Field work spanned five years (1995–1999) and was coordinated by a steering committee under the auspices of the Redwood Region Audubon Society. Much of the field work was conducted by professional field biologists (with which Humboldt County seems particularly well endowed), but this turned out to be a curse as well as a blessing because many biologists ended up being too busy during the field season to focus on difficult blocks! The task of surveying 425 blocks (each 5 × 5 km) was further complicated by the fact that 66% of the county is privately owned and by the long history of environmental confrontation and marijuana cultivation that made some landowners less than thrilled about cooperating with the project (the Atlas credits landowners for being “strident and colorful with their negative replies”). To get around this problem the steering committee parsed the county into 91 priority and 334 nonpriority blocks, but in the end only one block in the whole county remained entirely off limits. Coverage goals were established for priority and nonpriority blocks, but the Atlas doesn't mention what percentage of blocks met these goals. As is probably the case with many atlas efforts, the Humboldt County atlas found itself well behind schedule by the end of its third year. Fortunately, a timely grant from the National Fish and Wildlife Foundation enabled the hiring of well-known field ornithologist David Fix, and the project got back on schedule.

During the study, five species were confirmed nesting in the county for the first time (the American Bittern, Rhinoceros Auklet, Barred Owl, White-throated Swift, and Rufous-crowned Sparrow), and the Willow Flycatcher was confirmed breeding for the first time since 1931. The Atlas documents 181 confirmed, possible, or probable nesting bird species and notes the status of 16 additional species for which there is previous evidence of breeding in the county. These do not include miscellaneous

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observations that did not meet the strict criteria established for the project (including a singing Chestnut-sided Warbler, Magnolia Warbler, Northern Waterthrush, Hooded Warbler, and Black-chinned Sparrow, and a female Great-tailed Grackle). The most widely distributed breeding species turned out to be the Steller's Jay, Common Raven, Pacific-slope Flycatcher, Chestnut-backed Chickadee, and Dark-eyed Junco. But one result reveals how particular breeding bird efforts can be: the species confirmed breeding in the most blocks was the endangered Spotted Owl (which also ranked between the Song Sparrow and California Quail as the species detected in the most blocks!). This is testament to intensive owl surveys, but when the heavily annotated Spotted Owl map is compared to sparsely marked maps for much more common species it weakens the case that the Atlas was a comprehensive effort. Unfortunately, the scientific strength of the Atlas is further diminished by remarks made in the introduction that the Atlas was a "great excuse to go birding!" and that it should be used as a "recreational tool."

Species accounts in the Atlas are strongly written with rich detail on the habitat use, seasonality, behavior, and breeding, wintering, and migratory patterns of each species. All accounts have large maps showing confirmed, possible, and probable breeding blocks. Only the Peregrine Falcon is missing a map in order to safeguard known nesting territories. Every account also refers to the excellent compilations by Yocom and Harris (1991) and Harris (1996), who provided the historical backdrop against which the Atlas was compiled. Rather than devoting space to life-history details already covered in the excellent Marin County Breeding Bird Atlas, this Atlas focuses on the status and distribution of birds in Humboldt County. The result is a very clear and highly informative source of information on all of these birds.

If anything, the one aspect lacking in the species accounts is an examination of whether species' ranges have expanded or contracted, or whether numbers are changing over time. With so many field biologists conducting point counts in the county, and a long history of popular Christmas Bird Counts, it seems as though there should be numerous data sets to help explore these questions. For instance, little is said of changes in bird populations due to development of the county's coastal lowlands and marshes, or of changes after establishment of the Arcata Marsh in 1981 (one of the county's few large freshwater marshes and the site of many unusual breeding records). And little is said about changes in bird populations due to intensive logging that has removed closed-canopy forests and opened up second-growth stands across 74% of the county. Even the Spotted Owl account is noticeably lacking in hard numbers and statements about the effects of logging on this incredibly well-studied bird. Fortunately, the species accounts are so well written and provide such high-quality information that this is a minor quibble. For anyone interested in the movements and distribution of birds along the northwest coast of California the Humboldt Atlas will be an essential resource, especially because it dovetails nicely with similar efforts in Marin and Sonoma counties to give a broad picture of the avifaunas of coastal northern California. The Atlas also provides an update and companion volume to the summaries by Yocom and Harris. The folks of Humboldt County are very lucky to have all these resources at hand.

LITERATURE CITED

- Harris, S. W. 1996. *Northwestern California Birds*, 2nd ed. Humboldt State Univ. Press, Arcata, CA.
- Yocom, C. F., and Harris, S. W. 1991. *Status, habitats, and distribution of birds of northwestern California*. Humboldt State Univ. Bookstore, Arcata, CA.

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