

Ornithological Literature

Edited by Mary Gustafson

SAN DIEGO COUNTY BIRD ATLAS. By Philip Unitt. Proceedings of the San Diego Natural History Museum No. 39, Ibis Publishing, Temecula, California. 2005: 645 + vi pp., 468 color photos, several hundred maps and figures, 9 tables, 3 appendices. ISBN: 0934797218, \$80.00 (cloth).

—Let this review begin with the only flaw I could find while devouring a publication that may well be the most important book about California birds since Grinnell and Miller's 1944 standardbearer, *The Distribution of the Birds of California* (Pacific Coast Avifauna No. 27). The flaw is, simply, that its title "*San Diego County Bird Atlas*" understates the vast contributions of this effort by Unitt, several other contributing writers, and over 400 volunteers. The title might suggest that this is merely another in a worthy line of the Golden State's county-level breeding bird atlases that includes W. D. Shuford's *The Marin County Breeding Bird Atlas: A Distributional History of Coastal California Birds* (California Avifauna Series 1, Bushtit Books, Bolinas, California, 1993) and D. Roberson and C. Tenney's *Atlas of the Breeding Birds of Monterey County, California* (Monterey Peninsula Audubon Society, Carmel, California, 1993). However, in addition to being a thorough breeding bird atlas, *San Diego County Bird Atlas* also reports the results of a detailed winter atlas scheme and, furthermore, is an expanded reworking of the author's earlier publication, *The Birds of San Diego County* (San Diego Society of Natural History, Memoir 13, 1984). The Atlas thus treats all species, including transients and vagrants. It is also the most detailed and critical treatment of subspecies of southern California's birds in decades. The parochial title is an understatement, as well; although San Diego County may be geographically tucked into the far southwest corner of the United States, it boasts a bird list—493 species plus 87 additional subspecies—that is exceeded by no other county (or any region of comparable area) in the nation. This lofty total is a function of habitat and topographic diversity and a legacy of active ornithological field work and birding activity. San Diego County lies at the heart of the southern half of the California Floristic Province and has become a key area for bird conservation issues since—as the author points out on the very first page—its human population (approaching 3 million) continues to increase at third-world rates while consuming resources at first-world rates.

San Diego County stretches from the Pacific Coast eastward over coastal hills and the Peninsular Range (to 1,990 m elevation), then down into the Colorado Desert. Its diminishing coastal sage scrub was the subject of the landmark work of Soule et al. (Reconstructed dynamics of rapid extinctions of chaparral-requiring birds in urban habitat islands. *Conservation Biology* 2:75–92, 1988) on habitat fragmentation, and its chaparral and oak-conifer woodlands are subjected to great perturbations (some 1,715 km² of these habitats burned in 2002 and 2003, shortly after the completion of atlas field work). The county is home to a massive Marine Corps base (Camp Pendleton), Anza-Borrego Desert State Park (2,427 km²), and considerable National Forest and state park land in the mountains; there is a huge Navy presence in San Diego Bay, as well. Rapidly expanding suburban development continues in concert with important, albeit imperfect,

habitat conservation planning. San Diego County is thus a robust microcosm of California and the entire nation.

This attractive and richly illustrated book begins with a detailed methodology chapter explaining the field work conducted from March 1997 to February 2002. The atlas grid is based on township/range/section boundaries, with the 479 cells averaging about 23 km²; this is a bit at odds with other California atlas efforts, but such grid differences are trivial for biogeographical analysis. After a five page summary of important results and a review of the species account format, the Atlas provides a concise summary of avian habitats, conservation issues, and impacts of wildfire. The species accounts form the bulk of the text, ORNITHOLOGICAL LITERATURE 207 with account lengths varying from a couple of paragraphs for vagrants to two to three pages for most breeding species. Maps illustrate geographical distribution of the breeding range, with abundance and certainty of breeding confirmation coded by differing intensities of green and hatching in each atlas cell. For wintering species, or species whose breeding and wintering status differ greatly, an additional map shows winter distribution (based on field work from December through February) with three shades of blue indicating abundance, based on individuals encountered per hour. Additional cells in which only migrants were recorded are shaded in gray; for some breeding species, former (pre-1997) breeding cells are colored red. Breeding species merit an additional graphic that portrays nesting phenology.

Exotic species (including a growing resident population of Black-throated Magpie- Jays, *Calocitta colliei*) and hypothetical species are treated briefly in a section subsequent to the main species accounts. There follows appendices listing all avian taxa recorded in San Diego County (most are documented by specimens in the San Diego Natural History Museum) and the scientific names of plants mentioned in the text. A third appendix provides locality data (and sometimes date) for the hundreds of color photographs; roughly half of the photos were taken in San Diego County.

Among the many strengths of the species accounts are the thoughtful Conservation sections provided for most species; population and range changes are discussed here in detail. Declines are many, but a surprising suite of species has adapted to urban and suburban habitats and expanded accordingly; these include the Red-shouldered (*Buteo lineatus*) and Cooper's hawks (*Accipiter cooperii*), Nuttall's Woodpecker (*Picoides nuttallii*), Pacific-slope Flycatcher (*Empidonax difficilis*), Western Bluebird (*Sialia mexicana*), and Dark-eyed Junco (*Junco hyemalis*). Also excellent are the critical analyses of subspecies occurring in the county; Unitt excels at a sensible and modern application of the subspecies concept, rejecting ill-supported taxa but championing "good" subspecies as illuminating ecological adaptations, endemism, and seasonal population movements.

As if the sheer amount of useful information in this book weren't enough, the author's prose is highly readable and at times strays refreshingly from stiff, scientific style. His nearly 20 years at the editorial helm of the journal, *Western Birds*, have clearly served him (and us) well. Praise for the author, however, should not minimize the labor, guidance, and technical expertise of many others involved in the Atlas. Production values are high throughout, and any errors are surely minimal. This attractive production, however, does carry a rather stiff price, and one can't help but think that a version without color on virtually every page might have come in at half the price

and encouraged wider distribution. The bottom line, though, is that I recommend saving your personal and institutional pennies for this book—it's worth it. All birders and field ornithologists within hundreds of miles of San Diego County should have a copy. Those who are more geographically estranged from San Diego will still find great value in this work as a model atlas and regional treatment of status, ecology, and geographic variation.

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