REVIEW

The Birds of Escambia, Santa Rosa, and Okaloosa Counties, Florida, with Bird Migration, Weather, and Fallout by Robert A. Duncan and Lucy R. Duncan. 2018. Revised 3rd Edition. Privately Printed. 157 pages. \$16.00. Order from Lucy Duncan (614 Fairpoint Drive, Gulf Breeze, Florida 32561-4112), with \$3.17 postage.

For 50 years, Robert and Lucy Duncan have closely studied and meticulously recorded the birdlife of the three most western Florida counties. This book is the third (previous editions were in 1988 and 2000) and certainly the most thorough and polished summary of their efforts. When they began their work in 1968, they were fortunate to have a solid ornithological footing to stand on. Francis Marion Weston (1887-1969), called "the Dean of Gulf Coast ornithologists" (Lowery 1975), lived in Pensacola from 1916 until his death. He monitored birds and mentored younger ornithologists including Curtis L. Kingsbery, George H. Lowery, Jr., Burt L. Monroe, Jr., and many others, mostly it seems, through counseling on earning the Boy Scout Bird Study merit badge. Weston (1965) published a summary of 48 years of observations in A Survey of the Birdlife of Northwestern Florida, a 147-page compendium that gave the Duncans an authoritative and up-to-date reference when they began their bird activities.

It also provides them in the present work with a convenient and valuable perspective from which to note changes in birdlife from "Weston's time" (1916-1965) to the present. Weston listed 336 species of birds; the Duncans' present work has 424 "verified" species, an increase of 88. Many times these variations are attributed to habitat alterations of long or short duration, natural or anthropogenic; attention to geographic changes is a notable feature of this book. And change is not a surprise, for the three counties have probably a hundred or more miles of constantly eroding and accreting bay and surf saltwater margins; they sit in the bulls-eye for tropical storms and hurricanes that cause catastrophic upheavals in minutes, and bring with them wind-blown birds from more southerly lands and seas. Range expansions, extirpations, introductions, and increased observer coverage are important factors and so is technology: modern field guides, superb optics, and digital photography have been transformative (the Duncans cite a contemporary of Weston's who said that "the binoculars Weston used most of his life were woefully inadequate, and he never owned a telescope").

Species accounts provide extreme dates, status (uncommon, casual, etc., with terms defined, and whether breeding), and often notes on habitats, historic changes in distribution and abundance, and maximum counts. For accidentals, all records are listed along with observers and voucher evidence. Species are also listed in a 15-page bar graph showing seasonal occurrence and relative abundance. In "Where to Find Birds" the Duncans provide an eight-page section on habitats and protected locations with detailed driving instructions.

In the second part of the book the Duncans examine migration as experienced on the north coast of the Gulf of Mexico, something Robert Duncan wrote about in a previous publication (1994). The present version first summarizes the history of Gulf coast migration study and the evolution of recognizing the coexistence of trans-Gulf (flights directly across the width of the Gulf) and circum-Gulf (flights around the coasts) bird migration in both the spring and fall (Stevenson 1957), as well as the interplay of meteorological factors and biological mechanics of each, all the while citing the pertinent literature. Migration is a complex event at the north Gulf coast, where the trans-Gulf migrants would either be starting (fall) or ending (spring) a perilous over-water flight

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of some $550\pm$ miles, requiring a non-stop flight of 14 or more hours. There are a lot of moving parts, but weather is the key element, triggering flights and sometimes bringing disaster upon them.

A disaster for the birds might be an inadvertent delight for birders if a fallout results (fallout is defined in the book as "a large number of birds landing in an isolated location during a short period of time"). The Duncans explain the intricate series of events that lead to these fabulous spectacles, and provide tools and hints to enable birders to predict fallouts on their own. For example, weather buoy 42001, bobbing in the Gulf 180 nautical miles south of Louisiana, provides wind and other data useful for estimating how spring flights from Yucatan will fare¹; the Duncans tell you how to access that information.

I can highly recommend this book to any bird student in Florida and in neighboring Gulf states for the current status of many species, as well as a guide for understanding the complexities of migration in the region. Accolades to the Duncans, charter members and great friends of FOS for producing such a valuable reference.

I thank John Murphy for his many helpful suggestions on this review.

LITERATURE CITED

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¹Athough at this writing, buoy 42001 itself is "adrift."