Reviews

Edited by R. Todd Engstrom

The following critiques express the opinions of the individual evaluators regarding the strengths, weaknesses, and value of the books they review. As such, the appraisals are subjective assessments and do not necessarily reflect the opinions of the editors or any official policy of the American Ornithologists' Union.

The Auk 124(2):724–725, 2007
© The American Ornithologists' Union, 2007.
Printed in USA.

Waterfowl Ecology and Management.—Guy A. Baldassarre and Eric G. Bolen; illustrated by Tamara Sayre. 2006. Kreiger Publishing, Malabar, Florida. xii + 567 pp., 59 tables, numerous black-and-white line drawings and photos, and 1 appendix. 2nd edition. ISBN 1-57524-260-5. Cloth, $112.50.—Waterfowl are among the most studied groups of birds, in part because many species are widely hunted. In recent decades, waterfowl researchers have provided a wealth of new findings related to population ecology and management. Baldassarre and Bolen, recognizing the rapid growth of valuable new information since their book was first published in 1994 and the emergence of numerous new issues confronting waterfowl conservation, have prepared a new edition of their book.

The 2006 edition of *Waterfowl Ecology and Management* represents a major revision of the authors' original work. The handsome new front cover contains an inset of a Mallard (*Anas platyrhynchos)* and American Black Duck (*A. rubripes)* pair in color against a background of Greater Snow Geese (*Chen caerulescens atlantica*) in flight. The book is printed on glossy paper, with a much larger page size than in the first edition (28.0 × 21.5 cm vs. 23.4 × 15.7 cm). Drawings by Tamara Sayre add to the book's appeal, and numerous black-and-white photographs help to convey important points, though some are underexposed, which reduces their effect. Stand-alone "infoboxes," another new feature of the second edition, are distributed throughout the book to highlight accomplishments of early leaders in the field, identify roles of several key institutions and organizations in the field's early development, and discuss important waterfowl issues—for example, the introduction of Mute Swans (*Cygnus olor*) to North America and the growth of resident flocks of Canada Geese (*Branta canadensis*).

Several excellent books have been published on waterfowl over the past several decades, but this has not diminished the need for an up-to-date textbook for college instruction addressing waterfowl ecology and management. This volume is packed with important new information, making it a valuable reference for students and practicing professionals. Its 2,800 references, including 1,200 new citations, alone represent a valuable source of information on the current status of the field. The book's focus is primarily on North American species, habitats, and issues, but literature from other parts of the world is included where relevant. Common names of waterfowl are used throughout the book and follow Livezey (1997); in Appendix A, scientific names are provided along with English names for each of 171 species of fossil, extinct, and contemporary Anatidae.

The book is organized into 12 chapters with the same titles and order as in the first edition. Each chapter consists of a brief introduction followed by multiple sections addressing subjects pertinent to that chapter. The organization of the chapters is logical and easy to follow, and most aspects of waterfowl ecology and management are covered. Chapter 1 provides a historic overview of the field, and chapters 2 through 8 address key aspects of waterfowl biology. Chapter 9 includes a description of 67 important waterfowl areas in North America,

ranging in size from the Prairie Pothole Region to individual water bodies such as Ruby Lake in Nevada. Globally significant waterfowl sites outside of North America also are described. Chapter 10 provides a detailed overview of wetland habitats used by waterfowl, their status, and the dynamic processes that make them productive for waterfowl and other water birds. In Chapter 11, Baldassarre and Bolen provide an extensive overview of land-management policies, national environmental policies, and the roles of federal and state governments and private organizations in conserving waterfowl habitat, thereby offering guidance to readers who may seek greater involvement in waterfowl and wetland conservation and management. In Chapter 12, the authors temper the generally positive tone of the book by cautioning readers that although the recent past has seen many successes in waterfowl management in North America, major challenges lie ahead. One challenge the authors identify is a need for continuation of training programs to instruct the next generation of waterfowl biologists, a step they have made easier to achieve through preparation of this well-written textbook. For readers familiar with the first edition, major revisions occur in the chapters entitled "Waterfowl Classification"; "Reproductive Ecology"; "Nesting, Brood-rearing, and Molting"; "Harvest and Mortality"; and "Wetlands and Wetland Management." Chapter 2, on waterfowl classification, has been greatly expanded and now features Livezey's (1997) phylogenetic approach. In Chapter 5, on reproductive ecology, the section on reproductive strategies and role of nutrient reserves has been expanded, and a new section on evolution of clutch size has been added. Chapter 6, on nesting, brood-rearing, and molting, includes a wealth of new research findings on topics such as predator management, brood survival, and the beneficial effects of the Conservation Reserve Program in the Prairie Pothole Region on duck production. Chapter 8, on mortality and harvest management, includes new sections on the Migratory Bird Harvest Information Program and Adaptive Harvest Management, a new section addressing strategies for reducing numbers of Arctic-nesting geese, and an expanded section identifying causes of waterfowl mortality. Chapter 10, on wetlands and wetland management, contains a new section on integrated management of wetlands for waterfowl and shorebirds and an expanded section on control of noxious and exotic vegetation.

Preparing a comprehensive synthesis of waterfowl research and management in a large, complex, and rapidly changing field represents a major undertaking. Baldassarre and Bolen have distilled a vast array of information in their new book in a timely and very useful manner. The authors' extensive and varied experience in waterfowl research, bolstered by input from numerous waterfowl researchers and managers with diverse backgrounds, have helped to make this publication state-of-the-art. I would recommend this book for the library of every waterfowl biologist, educator, and student seeking a thorough understanding of the current issues affecting waterfowl populations and their management. Avian biologists focusing on water birds and non-professionals with an avid interest in waterfowl also should find this book informative and worthwhile reading.—Gary L. Krapu, *Northern Prairie Wildlife Research Center, 8711 37th Street SE, Jamestown, North Dakota 58401, USA. E-mail: gary_krapu@usgs.gov*

Literature Cited

Livezey, B. C. 1997. A phylogenetic classification of waterfowl (Aves: Anseriformes), including selected fossil species. Annals of the Carnegie Museum 66:457–496.