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Book review

***Southern Forested Wetlands: Ecology and Management*. Michael G. Messina and William H. Conner (editors). CRC/Lewis Publishers, New York, 1998, 448 pp., US $69.95 (hardcover), ISBN 1-56670-228-3.**

The southern region has the largest proportion of wetlands in the conterminous US. The majority of that wetland resource is forested by diverse vegetation communities reflecting differences in soil, hydrology, geomorphology, climatic conditions and past management. Wetland resources in the southern US are very important to the economy providing both commodity and non-commodity values. However, past management practices and development have greatly reduced the wetland acreage; accordingly, there is a critical need to sustainably manage the remaining resource. 'Southern Forested Wetlands: Ecology and Management' provides an integrated assessment of the wetland resources, important functions and values, and management. The book is organized into three sections that provide a coherent progression of information. The introductory section contains three chapters which provide the context for the ensuing discussions on wetland functions and ecology. The first chapter characterizes the wetland resource by contrasting the many classification and inventory systems that have been used. The second chapter presents an enlightening discussion on wetland functions and values, and functional assessments that will be useful to anyone conducting assessments of natural resources. The final introductory chapter deals with wetland regulation; it is an excellent primer on the history and current regulatory framework affecting wetland conservation and management.

The second section contains individual chapters addressing primary wetland functions, processes or characteristics (e.g. climate, hydrology, soils, biogeochemistry, plant physiology, wildlife communities, and fish communities). Each of these chapters provides a thorough review of the current understanding of these important functions or processes. Readers seeking to understand the basis of wetland functions will find excellent descriptions of the processes and mechanisms controlling these functions. The section is nicely organized, so that by the time the reader is considering the wildlife or fish chapters, the underlying factors controlling habitat have been well developed.

The third section discusses the ecology and management of major wetland types in the southern US: southern deepwater swamps, major and minor alluvial floodplains, pocosins and Carolina bays, southern mountain fens, pond cypress swamps, wet flatwoods, and mangroves. Each of these chapters is organized by a common format ensuring uniform presentation and coverage for each community type. The major subject headings for each include physical environment, vegetation community, animal communities, management and research needs. These chapters are authored by scientists recognized for their work in the respective wetland types, and their information builds nicely on the principals set forth in the second section.

The editors have done an excellent job organizing a volume that builds information in a logical

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and progressive manner, and ensuring that the individual chapters are conceptually linked and coherent. As a result, the chapters on specific wetland types are able to present considerable depth on the subjects without having to develop the basics. Correspondingly, the chapters on wetland functions present detailed discussions that provide a clear understanding of the many wetland processes that are valued by society. Each of the chapters is well researched, yielding a cumulative 90 pages of references. The editors have also provided an appendix presenting the common names of plants and a subject index.

This book will be useful as a primary reference as well as a text for graduate student courses in wetland ecology. The utility of this book is not confined to ecologists in the southern US. The ecosystems covered in this book have analogs in tropical and boreal regions, and the processes discussed are broadly relevant. Also, some wetlands discussed in this volume are among the most intensively studied; accordingly insights gained from wetlands in this region will be of interest to scientists in other geographic regions. The only subject not treated in this volume is restoration of forested wetlands. This is not a limitation. Those interested in restoration ecology will find this to be an indispensable reference to the conditions and ecology of wetlands, hence a foundation for effective restoration. In summary, this book should be on the shelf of every wetland scientist's library.

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