

THE ECOLOGY AND SILVICULTURE OF OAKS, SECOND EDITION: A NEW BOOK

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ABSTRACT

The second edition of *The Ecology and Silviculture of Oaks* was recently published (Johnson and others 2009). The approach of the book is fundamentally silvicultural, but the content is based on the premise that effective and environmentally sound management and protection of oak forests and associated landscapes must be grounded in ecological understanding. The central concepts are based on recognizing similarities and differences among the various kinds of oak forests. Consequently the underlying principles presented are applicable to many if not most of the oak forests of the world. Topics include the distribution of oaks and oak-dominated ecosystems; regeneration ecology; site productivity; development of natural stands and stand dynamics; even- and uneven-age silvicultural systems; silviculture for nontimber objectives; and growth and yield.

This new edition provides guidance for managing oak forests to meet a range of objectives, including timber production, oak savannas, acorn production, old-growth forests, and aesthetics. New and updated sections include information on carbon sequestration, the production of biomass, and impacts of climate change. Content on insect and disease problems of oak forests has been expanded to include sudden oak death and more material on oak decline.

This book is intended not so much as a how-to-do-it management manual as it is a source of ideas on how to think about oak forests as responsive ecosystems. The book is focused on oaks of the United States and was written for forest and wildlife managers, ecologists, silviculturists, environmentalists, students of those fields, and others interested in sustaining oak forests for their many tangible and intangible values.

Much has been written about the ecology and silviculture of oaks. The great quantity of relevant literature represents, in one sense, an informational “embarrassment of riches.” The embarrassment stems from the lack of synthesis within and across two broad fields of study: ecology and silviculture. Although the literature on North American oaks dates to the colonial period, most of it was written within the last 50 years. Much literature resides in relatively obscure scientific and technical journals, proceedings, government publications, and other sources that can be difficult to locate and retrieve. The first 16 proceedings of the Central Hardwood Forest Conference are important sources for much relevant knowledge. But even with ready access to this information, its synthesis into a holistic framework of knowledge is a daunting task.

One of the objectives of the book is to present ecological and silvicultural concepts that can be used to address an array of problems defined by various perceptions of how oak forests should be treated. The current trend

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in managing forests and forested landscapes is away from sustaining timber and other commodity outputs and toward a broader philosophy of sustaining desired ecological states. We believe that armed with a greater understanding of oak forests as responsive ecosystems, managers and conservators of oak forests will be better able to adapt to changing social values and to simultaneously build and act on co-evolving ecological and silvicultural knowledge.

LITERATURE CITED

Johnson, P.S.; Shifley, S.R.; Rogers, R. 2009. **The ecology and silviculture of oaks, 2nd edition.** Wallingford, Oxfordshire, UK: CAB International. 580 p.

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