

# PREFACE

This collection of papers analyzes the Pioneer Forest, a privately owned 150,000-acre working forest in the Missouri Ozarks on which the science and art of forest management has been practiced for more than 50 years. The papers discuss how this half century of management has contributed to forest restoration and sustainability on the forest itself and, through its example undergirded by a remarkable body of research, throughout the Ozark region and beyond.

Pioneer Forest embodies the stewardship ethic of its founder and long-time owner, Leo Drey. Much more than a working forest producing timber and jobs on a sustained basis, Pioneer Forest has contributed to the local economy, served as a working demonstration for other private forest landowners, cooperated imaginatively with an array of public agencies, conducted its own research and been widely available to outside researchers, and been open for hunting, fishing, and a wide variety of primitive recreational pursuits. Through his leadership and commitment, Leo Drey has influenced many developments in conservation by pioneering in landscape restoration, natural areas preservation, forest recreation, and sustainable ecosystem management. In his daily activities and in his remarkably consistent, public-spirited vision over the half century of his ownership, Leo Drey has set a new standard for what it means to be a private forest landowner, not only in the Ozark Mountains but also in the Nation.

In July 2004, Leo Drey and his wife Kay donated the lands of Pioneer Forest L.L.C., along with its offices, staff, and long-standing management and research experience, to the L-A-D Foundation. With this magnificent gift—valued at \$180 million, one of the top philanthropic gifts in the Nation that year—the work of Leo Drey's lifetime will continue to be available as a living embodiment of his stewardship ethic and as a working model for all who are interested in innovative approaches to sustainable management of private forest lands throughout the Nation.

Most of the research and discussion papers in this volume grew out of a symposium held in October 2001 in St. Louis, MO, on the occasion of the 50th anniversary of the founding of Pioneer Forest. The Missouri Botanical Garden and Tower Grove Park hosted the event. The symposium was an opportunity for nearly 200 individuals to gather and reflect on this forest's long history of accomplishment.

Following the symposium, the authors of several of the principal papers substantially rewrote and augmented their analyses, and the editors commissioned a number of additional papers to round out a volume that highlights the wide reach of the forest and its most important influences. As a result, there is a spectrum of academic rigor and scope in these papers. A few have been developed into much more ambitious treatments than the original presentations. Despite the mixed character of the final product, we feel that it is worthwhile for the sake of the overall record to include all of the presentations.

The volume opens with two papers offering historical perspective. Forest ecologist James Guldin traces 500 years of change in the forests of the Ozark Mountains and in people's attitudes toward and management of them from pre-European conditions through exploitation and recovery to the era of modern forestry. Environmental historian Susan Flader follows with an extensive analysis, grounded in original archival records, of the establishment and management of Pioneer Forest over the past half century and its influence on regional development in the Ozarks, including both private and public land management.

The next four papers analyze the uneven-aged silviculture by single-tree selection that has been practiced consistently on Pioneer Forest over the years and some of its ecological context and implications. Silviculturist Edward Loewenstein, who has studied the science and art of forest management on Pioneer for more than a decade, discusses the evidence from quantitative analysis and practical observation that suggests the methods being applied on Pioneer are both sustainable and productive over time. Greg Iffrig, Clinton Trammel, and Terry Cunningham, the senior management staff of Pioneer, present a detailed description of the implementation of single-tree selection on the ground, in the context of the development of the technique and the scholarly debate about its efficacy. Dendrochronologist Richard Guyette and research specialist Michael Stambaugh analyze the degree of topographic roughness of Pioneer Forest lands and discuss the effect of that roughness on the long-term history of local disturbance factors and the implications this has for the efficacy of silvicultural practices on the forest in mimicking historical vegetation regimes. Biologists Gerardo Camilo and Nick San Diego report that the single-tree selection method practiced by Pioneer Forest has benefits to forest and leaf litter arthropod communities by creating conditions that maximize diversity.



The final group of papers explores the economic and social values fostered by Pioneer Forest. Forest economist Makoto Hamatani and Katherine Goslee of Appalachian Voices analyze the profitability of the single-tree selection management practiced on Pioneer over the past half century and consider its implications for smaller landholdings. John Karel, president of the L-A-D Foundation, surveys the roles of Leo Drey, Pioneer Forest and the L-A-D Foundation in the protection of natural areas and the provision of public recreational opportunities, not only on Pioneer but also on several thousand acres of other L-A-D properties. The third paper is a compilation of personal reflections from the 50th anniversary symposium that evokes a wide range of values fostered by the forest. They represent the perspectives of many who have studied, worked on, thought about, enjoyed, or lived near the lands of Pioneer Forest.

An appendix presents an annotated bibliography of scholarly research publications and nontechnical information on Pioneer Forest and other properties of the L-A-D Foundation. The bibliography contains more than 150 entries that further substantiate the breadth and depth of research and the range of values fostered by the forest.

The scientific process would be incomplete without peer review of papers. We are grateful to the following scientists and professionals for providing reviews of the manuscripts contained in this volume: Don Bragg, Leon Cambre, John Dwyer, Tom Foti, John Groninger, John Kabrick, Bill Kurtz, Earnest Lovett, Ross Melick, Rose-Marie Muzika, Paul Nelson, Tim Nigh, Walter Schroeder, Steve Shifley, Martin Spetich, Rick Thom, James Trager, and Don Voth. We are especially grateful for the collaboration of the Southern Research Station of the Forest Service, U.S. Department of Agriculture, that enabled the publication of this volume.

In addition to the Missouri Botanical Garden and Tower Grove Park, the following organizations contributed significantly to the success of the 50th anniversary symposium and represent a fair sampling of the range of organizations with which Pioneer Forest and the L-A-D Foundation have cooperated over the years, and we would like to thank them here: Akers Ferry Canoe Rental, Antioch College, Appalachian Voices, Auburn University,

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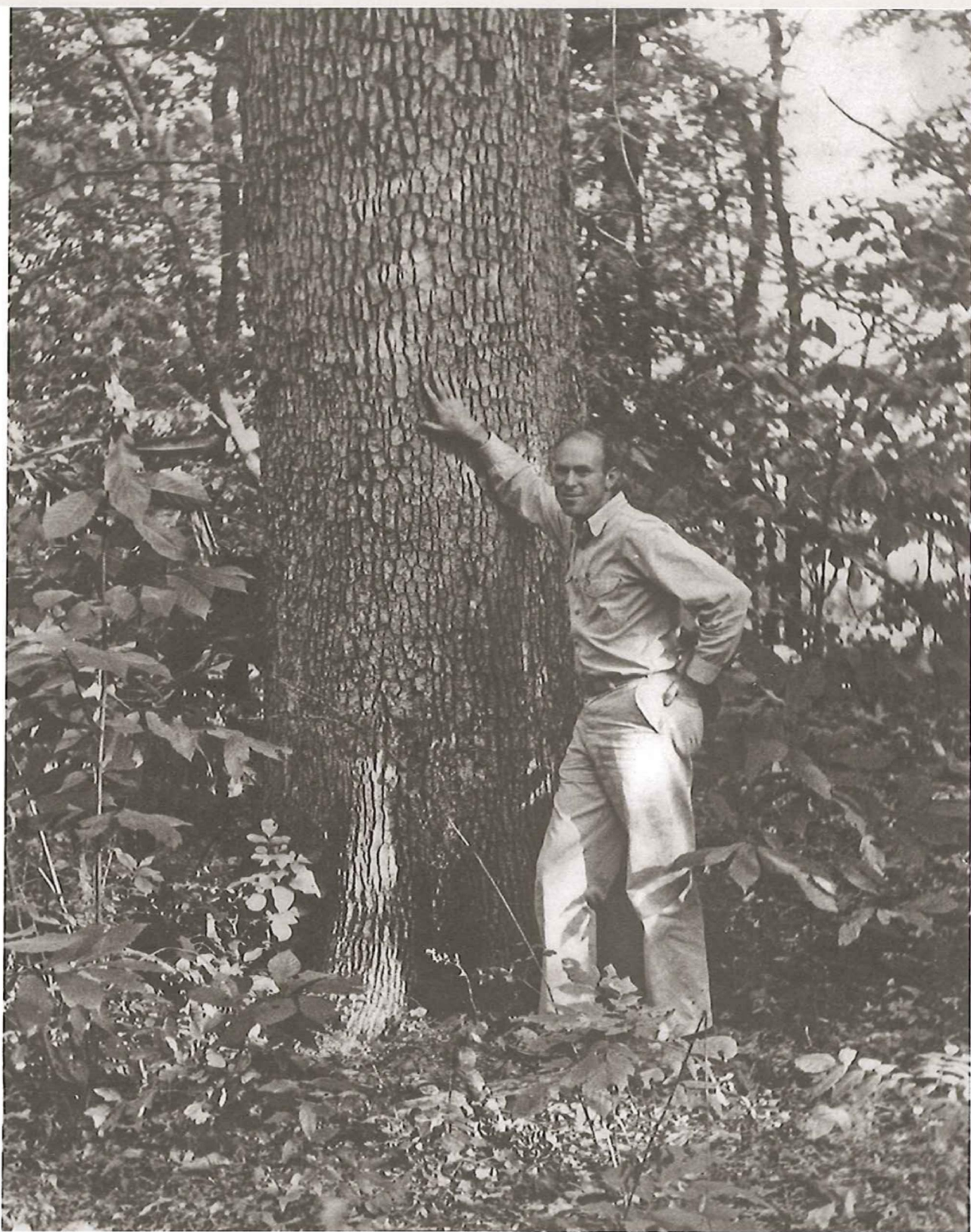
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Leo A. Drey with an ancient white oak, ca. 1950s. (Courtesy of Leo Drey)