

VEGETATION OF
NEW JERSEY

*A Study of
Landscape Diversity*

Beryl Robichaud and
Murray F. Buell

NOTE: these pages are excerpts from a textbook available through the HMF
or University Libraries.



RUTGERS UNIVERSITY PRESS
New Brunswick, New Jersey

Contents

Acknowledgments	ix
Introduction	3
I Understanding Vegetation	
1 Understanding Vegetation: Why the Vegetation of New Jersey Is What It Is	9
II Influences on Vegetation of New Jersey	
2 Geologic and Soil Features of New Jersey	29
3 Climate of New Jersey	54
4 Man's Impact on the Vegetation of New Jersey	65
5 Other Biological Influences: Plant-Plant and Plant-Animal Relationships in New Jersey	82
III Natural Landscape of New Jersey	
6 Natural Landscape of New Jersey: Terrestrial Plant Habitats and Vegetation Types	97
IV Vegetation Types of New Jersey	
7 Vegetation of the Marshes in New Jersey	113
8 Vegetation of the Bogs in New Jersey	131
9 Vegetation of Other Lowlands: Swamps and Flood- plains in North and South Jersey	147
10 Vegetation of the Mesic Uplands in North Jersey	164
11 Vegetation of the North Jersey Ridgetops, Slopes, and Rock Outcroppings of Higher Elevations	188

12	Vegetation of the South Jersey Coastal Plains— Its Mesic Uplands and Drier Pine Barrens	206
13	Vegetation of the Coastal Sand Dunes	234
14	New Jersey Forests as Part of the Eastern Decidu- ous Forest Formation	254
V A Look into the Future		
15	The Future: Vegetation and Man in New Jersey	269
Appendix I	Where to See Types of Natural Vegetation in New Jersey	291
Appendix II	References for Plant Identification	306
Appendix III	Plant Names	310
Index		335

Introduction

New Jersey, the fifth smallest of our fifty states, has a land area of only 7,509 square miles. Measured at its greatest length, from High Point near the northwest boundary to the southeastern tip of Cape May, the state extends 166 miles. At its greatest width from east to west the state is only fifty-seven miles wide; in midstate this distance narrows, and a line drawn from Trenton on the west to the Raritan Bay at the northeast would measure only thirty-two miles.

According to census figures, the 1970 population of New Jersey totaled 7,168,164, an average of 954 persons per square mile. This makes New Jersey the most densely populated of the fifty states. Perhaps more startling is the fact that New Jersey has more people per square mile than India, Japan, or the Netherlands, areas that usually are considered to be overcrowded.

Economically, New Jersey is highly industrialized and ranks seventh among all states in value of total industrial production. It is first of all states in the manufacture of chemicals, its leading industry. The state's other important industrial products include electrical machinery, food products, fabricated metal products, and transportation equipment. While the relative importance of agriculture has been declining sharply, 24 percent of the total land of New Jersey is still used for poultry and dairy farming or for the growing of vegetables, fruit, grain, hay, and ornamental plants. Of these products, eggs are the most important economi-

cally. In the mid-1960s the state ranked tenth in the number of eggs produced, second in the crop value of asparagus, and third in tomato cannery production.

Mining and quarrying operations, while less significant in the state's economy, show their imprint on the New Jersey landscape principally in the form of traprock quarries and sand and gravel pits.

To accommodate these industrial activities as well as the needs of its population, the state has built what is often described as "a beautiful network" of highways; it carries the densest flow of traffic in the world.

In spite of its relatively small land mass, its dense population, its advanced state of economic development, and its highly developed transportation facilities, New Jersey still has some natural vegetation. Even more surprising is the great variety in the vegetation—the landscape diversity—that now exists in the state. Although the main purpose of this work is to describe the vegetation of New Jersey in terms of its appearance and plant composition, it is equally important to explain why the vegetation is now what it is. The authors hope that a fuller appreciation and understanding of the present natural landscape will stimulate more interest in and concern about what we may leave behind for those who live after us. It is the people who have the ultimate responsibility for the use of our land resources and for the selection of actions that will have a significant impact on the future landscape of the state. Thus an informed public is necessary to ensure that wise decisions are made today to preserve a legacy for future generations.

To achieve these purposes, this book provides, first, a background for understanding why the vegetation of New Jersey is what it is today; second, a description of the present vegetation of the state; and finally, a look into the future of vegetation and man in New Jersey.

Throughout the text each plant is referred to by its common English name if one exists; the Appendix contains a two-way cross-reference between the common and scientific (Latin) names for each plant. No attempt is made to describe the botanical

features of the hundreds of plants that are mentioned in the text. Instead, a list of references to plant identification is given in Appendix II. Also included in the Appendix is a guide to locations where the vegetation types of New Jersey can be seen.

REFERENCES AND SOURCE MATERIAL

New Jersey State Department of Labor and Industry, Division of Economic Development. 1964-1970. Facts about New Jersey, Facts and Facets of the Economy, A Guide to New Jersey Industrial Facts, Know Your State, County Data Sheets, and Estimates of Populations.