

The EVERGLADES HANDBOOK

Understanding the Ecosystem

—FOURTH EDITION—



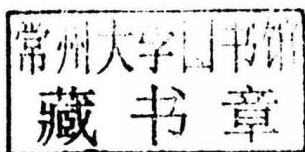
Thomas E. Lodge



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Dedication

To the memories of:

John C. Ogden

(November 18, 1938–March 31, 2012)

When I had a tough Everglades question, my first inclination was to find John's phone number. From wood storks to crocodiles and Everglades restoration, in the words of Bob Dylan, "Roll on John."

Aaron L. Higer

(April 15, 1935–October 23, 2015)

Through his distinguished history with USGS, Aaron gave direction and encouragement to countless Everglades scientists, including me, ... and never asked for credit.

Peter W. Harlem

(November 15, 1948–March 15, 2016)

He generated the graphic details for the consequences of rising seas, giving those who keep their heads out of the sand the guidance for protecting our future.

John Arthur Marshall

(May 9, 1940–March 28, 2016)

Appreciating the importance of his uncle Art's work, John carried the torch to new levels as an unrelenting advocate of "movin' the water south."

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Foreword

As a child, the natural world and its creatures were a magnet for me. It probably appeared to many that success with a fishing rod was my focus. But fishing easily translated into a personal drive to sustain natural environments. In my view, successful hunting, fishing, bird watching, and witnessing the beauty of preserved wilderness are measures of a broader success.

In the late 1960s, I got my first chance to focus efforts on preserving and improving Florida's natural environments while working as an environmental advisor for Governor Claude Kirk, one of six governors I served. Initially, Governor Kirk had little concern for environmental matters, but did possess a keen sense for changing political and popular winds. Shown the ugly and deteriorating condition of the state's natural waters, he became a champion for sewage treatment, siding with me in overruling and converting enormous opposition to the cost of protecting waters. With some easy convincing, Kirk was also converted to support the designation of Biscayne National Monument, the forerunner of that park. Support by the state's governor was important to the federal effort.

While it seemed daunting at the time, the challenge of protecting the lion's share of Big Cypress Swamp was manageable. The Big Cypress had minimal dependence on outside waters, thriving mostly on rainfall within its borders. And while landowners and development interests were powerful, they were overcome by a coalescence of former adversaries—hunters, environmental advocates, and Native Americans. These efforts are summarized in the Big Cypress Swamp chapter of this book, and I'm proud of the part I played as Assistant Secretary of the U.S. Department of the Interior in the formation of the Big Cypress National Preserve.

This brings us to the daunting Everglades. Water, its quality, timing, and distribution were key, and much of it came from outside its borders. Everglades National Park had been designated in 1947, but its needs were neglected in the following decades. Not only was there a perceived conflict between water for people and water for nature, but no one understood anything about the water requirements of the Everglades and the downstream National Park. In comparison with protecting other waters and lands in the state, the Everglades challenge was huge, much larger than its robust physical dimensions. To come up with a plan, it took a decade of focused science and a growing understanding of economic benefits including the power of tourist dollars. The urgency to restore the Everglades reached a high level in the 1990s, and with my reservations for its pumps and pipes, I supported the outcome that became CERP: the Comprehensive Everglades Restoration Plan. But its complexity, rising cost, and still emerging science (understanding the importance of water flow, of tree islands, and of the effects of pollutants, etc.), have dragged the effort across a changing pendulum of public and political support. We are now in the grips of a political environment favoring short-term benefits of land development with reduced encumbrances for which future generations will pay dearly in correcting the results of poor decisions. This environment has not been good for Everglades restoration. What is needed is a rekindling of forces that look to future benefits of smart decisions, an effort I now continue with The Everglades Foundation. That vision should benefit the Everglades but will likely require federal intervention.

Tom Lodge's first edition of this book in 1994 has progressed into being this vital guide to the massive Everglades ecosystem, its incredible values, and the equally ominous threats to its continued viability. Lodge graphically describes one of the most unique areas in the world that has been badly mistreated by many. At the same time, it has an equally unique opportunity to be revived in a form that comes close to duplicating its extraordinary example of a major natural system unlike another. No amateur or serious Everglades expert has not used this book as an accurate description

of the ecosystem and the problems that it faces, and which must be solved. This fourth edition covers the key subjects of previous editions with major updates of the new science and understanding. If there ever was a necessary book for Everglades advocates, students, authors, members of government and their agencies, *The Everglades Handbook: Understanding the Ecosystem* is an absolute must!

Nathaniel P. Reed

Preface

MY GUIDING LIGHT

In the end, we conserve only what we love. We love only what we understand. We understand only what we are taught.

Baba Dioum

Senegalese conservationist

THE FIRST EDITION

The first edition of this book was published by St. Lucie Press in May 1994. It had been conceived in 1982 as a large-format color photographic book on the Everglades. The intent of the text was not only to accompany the excellent Everglades wildlife and habitat photographs by Robert Hamer, with whom I had conspired since 1971, but was also to provide a more comprehensive coverage of the Everglades than available in other “coffee table” publications. Bob and I both enjoyed “escaping” to the Everglades for photography and wildlife observation, so the project initially was much more play than work. The effort to find a publisher for the large-format book failed, but through the several years in that effort, I continued revising the text. Then, at the Everglades Coalition meetings in Tallahassee in early 1993, I took a suggestion from friend, Pete Rosendahl, to move ahead and publish the text (requiring extensive revision) as a service to the environmental community for its understanding of the ecosystem, which was needed for the growing momentum of Everglades restoration. I heeded the suggestion, revised the text accordingly, and approached St. Lucie Press, because it was then publishing the monumental book *Everglades: the Ecosystem and Its Restoration*.¹⁷³ Dennis Buda at St. Lucie Press immediately undertook my text and suggested the name, *The Everglades Handbook*. I accepted on the condition that it be subtitled *Understanding the Ecosystem*—my driven intent.

THE SECOND EDITION

It surprised me when the first edition was widely used as a college-level ecology text. Initially, I identified about a dozen university orders that indicated such use, including several northern universities that conducted spring-break field trips to South Florida. By chance encounters, I signed many copies of the first edition for such students at Mrazek Pond and other locations in Everglades National Park. In 1998, I was invited to teach South Florida ecology at Florida International University, where *The Everglades Handbook* was in regular use (as subsequent editions have been). I agreed to a limited schedule, mostly out of the desire to see how the handbook could be improved as a course text. An immediate revelation was the need for many more pictures of plants and animals than could be accommodated in the book’s scope. To fulfill that need, I initially carried slides and a projector to class. But I soon found the *National Audubon Society Field Guide to Florida*, and I used it as a supplemental text, which the students obviously appreciated. I still recommend it, and the availability of works of this kind guided my decision not to include significantly more pictures in the second edition I had agreed to do for CRC Press, which by then had taken over St. Lucie Press. The second edition was expanded for use as a college text and for the environmental community’s interest in ecosystem restoration. There was considerable added material on geology, and three new chapters: The Big Cypress Swamp, Lake Okeechobee and the Everglades Headwaters, and Syntheses, a chapter on succession and food chains. The final chapter on human impacts was expanded with Native American history, invasive biota, and Everglades restoration.

THE THIRD EDITION

The Everglades Handbook had done well in the environmental community and in academic use for South Florida ecology courses in advanced high school and introductory college levels. Based on this success, I was approached by John Sulzycki of CRC Press in 2008 to undertake a third edition, which would be hard cover and all-color. I accepted, not realizing that the requested short time frame, continued expansion in the scientific literature, and conversion of all figures to incorporate the additional dimension of color was a huge undertaking. In addition, we conspired on the potential market and identified that the region's coastal ecosystems were poorly covered in academic texts. With *The Everglades Handbook* already covering the interior Everglades region from Orlando south, the coastal systems would be an obvious area for expansion. And so revisions were launched to include the Caloosahatchee/Charlotte Harbor, the St. Lucie River/Indian River Lagoon, the Loxahatchee Slough and River, Lake Worth Lagoon, and Biscayne Bay, in addition to updates throughout.

NEW IN THE FOURTH EDITION

The major advancement in recent years has been the application of computer modeling to South Florida environments. Accordingly, and by request, I have added to Chapter 21, now called Syntheses: Ecological Relationships, Processes, and Models for the Everglades, and have sprinkled applications into other chapters. The field of ecological modeling and its applications to South Florida environments is the biggest advancement in Everglades science literature. It deserves an entire book on its own, so my exploration into the field is small but is hopefully an adequate introduction for those inclined to explore further.

The fourth edition also presents four major improvements in our understanding of the Everglades and its restoration. First is the recent and now quantified role of water flow in shaping the Everglades landscape (Chapter 3). Second is the origin and evolution of fixed tree islands (Chapter 4). Third is a greatly expanded explanation of sulfur and related mercury as wetland pollutants (Chapter 22). Fourth is a summary of the now quantified economic benefits of restoration, shown to be far in excess of its cost (Chapter 22). All of these improvements are in addition to many updates in the saga of Everglades restoration, sprinkled throughout several chapters but concentrated in Chapter 22.

REFERENCES AND CITATIONS

As an aid to readers' quest for more detailed information, citations (indicated by superscript numbers) are provided throughout the text and listed in the references at the end of the book. While such referencing helps support facts and theories, the larger intent is for guidance to more detailed sources. References that apply to entire topics are indicated with the chapter or section headings. More specific citations are indicated in the text. With the huge attention to restoration, and the dollars poured into it, the scientific literature has grown to an enormous size, dwarfing what was available when I started. I have tried to be selective with additions and have eliminated many older, superseded studies.

ABOUT THE INTRODUCTION TO THE FIRST EDITION

Out of professional honesty, I have to admit that, although I wrote the introduction to the first edition—that is, my hand put the words on paper—the actual words were dictated by Marjory Stoneman Douglas (also included in this edition). Our agreement included my assisting in order to accommodate her failed eyesight, and necessitated reading the entire draft text aloud to her prior to embarking on the introduction. It was the summer of 1989, when she was “only” 99 years old. We spent numerous weekends working in her combination living room and office. During one

particularly long session of my reading, I noticed her tap her “speaking” clock. It announced the time, and upon my next pause she interrupted, “I usually have a drink at 5:00. It’s 4:30 now, and that’s close enough.” So we put papers aside and drank some scotch.

Her attentiveness during my reading was extraordinary. Some sessions lasted nearly 3 hours, with short breaks only for suggested changes or incidental comments. She appeared to show nothing but fascination with an admittedly lengthy text, and initially I had wondered how much she retained. Then, upon beginning the third reading session, she said, “I don’t believe you mentioned the harlequin snake (her vernacular for either of the Florida scarlet snake or the scarlet kingsnake) in your reptile chapter last week. I once saw one in my woodpile. I want you to include it.” And so it was done, and my question of her comprehension was rested. Actually, she suggested several additions to the text, always wanting more details to satisfy her own curiosity. For whatever apprehension I had at the outset—whether we would have unpleasant disagreements, difficulty in communicating, and so forth—I now look back at those weekends with confidence; there was nothing less than friendship and lots of fun.

In the years following the initial writing, I visited Marjory numerous times. Among other things, I asked her about the statement of her age in the first sentence, as it was getting out of date. With her concurrence, the first change was merely from 99 to 100, with a sense of pride in both of us (see Figure 1). But as time advanced without publication, she joked that I should skip directly to 102—which I did! Our final meeting to discuss the book was on March 21, 1993, just a few weeks prior to her 103rd birthday. Following that meeting, however, I realized that there was really no need to obscure those enjoyable days when we actually worked over the details of the text, and I elected to return to the original “99 years.”

The last time I visited Marjory was March 6, 1997, when she signed my personal copy of the first edition at her house. Her ability to hear and to recall details of her marvelous life had faded considerably, but she still affectionately recognized my voice. Marjory died in May 1998 at the age of 108.

Thomas E. Lodge, PhD

Acknowledgments

At the outset, I want to thank Nathaniel Reed for accepting the job of writing the foreword. Nat does nothing but work, and fitting in another assignment for me was a blessing!

Many people helped me with this effort and I owe them all my gratitude. At an early stage, J. Matthew Hoch of Nova Southeastern University, Natalie Osterhoudt of Broward Community College, and Krish Jayachandran of Florida International University provided suggestions on changes for the fourth edition through CRC Press. Their views were based on experience using the previous editions as course texts, which was very helpful.

The South Florida Water Management District was helpful in providing access to improved maps, photographs, and other graphics. I thank Fred Sklar for authorizing updates of maps to show new restoration and other features—the excellent work done by Susan Hohner who also supplied a copy of her master’s thesis on Loxahatchee Slough. Susan Bennett, Patti Gorman, and Marion Hedgepeth were helpful in finding and supplying specific photographs, and Marion also provided flow data on the Loxahatchee River’s NW Fork. Delia Ivanoff provided a plan map of STA-1W. Susan Gray, Tom James, and Bruce Sharfstein provided review comments on Lake Okeechobee, and Tom provided updated nitrogen and phosphorus graphics for the lake. Jenifer Barnes provided a Natural Systems Regional Simulation Model flow-vector map and Mark Cook helped with an updated Everglades wading-bird population chart. Formerly of the SFWMD, Winnie Said provided guidance on sources of information for hydrologic models.

Several people from the National Park Service were helpful. Of Biscayne National Park, Superintendent Brian Carlstrom provided staff assistance by Charles Lawson, Elsa Alvear, and Sarah Bellmund, each providing important comments. Of Everglades National Park, Alice Clarke and Brandon Gamble provided a hydrologic graphic for Biscayne Bay, Erik Stabenau updated the Key West sea-level graphic, Figure 10.6, and Robert Johnson and Caryl Alarcon provided an updated Cape Sable seaside sparrow map with additional landmarks that I requested. Formerly of Everglades National Park, Robert Fennema provided the Everglades hydrographs and its interpretation, Figures 3.10 and 21.12. Of the Big Cypress National Preserve, Superintendent Tamara Whittington facilitated a review of my Big Cypress chapter, the work done by Robert (Bob) Sobczak, who also contributed one of his excellent aerial photographs. Bob’s online posts at www.gohydrology.org provided me with many ideas on presenting hydrologic and other data, and Bob tailored two of his plant community hydrographs specifically for this book, Figures 3.9 and 7.7.

Federal government help also came from Dan Scheidt of the U.S. Environmental Protection Agency and Bill Orem of the U.S. Geological Survey. They provided literature references and constructive comments on my draft text and figures for the sulfur and mercury sections. Also of the USGS, James Beerens contributed references on his Everglades modeling work on wading birds, and Judson Harvey provided helpful guidance on the role of flow. Laurel Larsen, now of the University of California Berkeley, provided papers and a helpful summary of her research involvement on the effects of flow velocities in the Everglades. In cooperation with others, the work by Jud Harvey and Laurel Larsen forms the backbone of the final section in Chapter 3, dealing with flow. Of the U.S. Army Corps of Engineers South Florida Research Branch, Kimberley Taplin provided the Central Everglades Planning Project recommended plan, Figure 22.30.

The University of Florida has been highly active in many aspects of Everglades restoration. Direct help for this book came from Peter Frederick by providing the updated Everglades wading-bird population graphic, Figure 22.18. Joel Trexler and Evelyn Gaiser of Florida International University provided helpful guidance and research papers dealing with their respective areas of Everglades fishes and periphyton. Of the University of Miami, Traci Ardren reviewed the Native American section at the beginning of Chapter 22, and provided a critique of Figure 4.11, a figure based on work by Paul Wetzel of Smith College. Paul also provided helpful comments on that figure.

Nongovernment organizations and individuals were helpful in providing photographs and other assistance. Jerry Lorenz of Audubon Florida contributed the roseate spoonbill population graphic, Figure 22.19. Steve Davis and Tom Van Lent of the Everglades Foundation provided helpful graphics. Mark Perry of The Florida Oceanographic Society (FOS) contributed a graphic showing the status of purchases in the Everglades Agricultural Area, Figure 22.31, and together with Vincent Encomio of the FOS, provided important information on oysters. Based on a referral from Mark Perry, I contacted Jacqui Thurlow-Lippisch, who provided two aerial photos showing Lake Okeechobee releases overwhelming the St. Lucie Estuary, Figures 12.7 and 12.8. Dick Roberts, retired from the Florida Park Service at Jonathan Dickenson State Park, provided the 1971 aerial photograph of the Loxahatchee River's Northwest Fork, Figure 12.11, and provided helpful comments on the related text. Jackie Obendorf of Clyde Butcher's Gallery contributed one of Clyde's famous photographs, Figure 8.4. Of related content, professional photographer Alejandro Borgese contributed the mangrove islands photo, Figure 8.5. John Adornato and Caroline McLaughlin of the National Parks and Conservation Association provided helpful review comments on the Biscayne Bay section of Chapter 12.

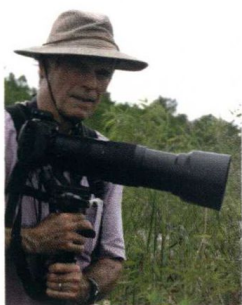
Useful guidance and tips on Everglades history and current events came from daily postings on Commons-Everglades. With oversight by Peter Rauch, they were primarily by Bob Mooney but with many individuals contributing facts and opinions.

I want to thank Tom MacVicar, Bill Baker, and Jeff Rosenfeld of MacVicar Consulting. Tom reviewed my section dealing with modeling of the seepage barrier in Chapter 21. Bill and Jeff revised the Lake Okeechobee hydrograph of Figure 11.14, with Jeff adding a last minute update as the January 2016 data became available.

Due special recognition is Hiram Henriquez, President of H2H Graphics & Design. He was an excellent recommendation of the Everglades Foundation. Hiram was fast and efficient in his work, updating graphics, converting crude literature diagrams such as in Figure 21.10, and creating new work from my rough sketches, making them into professional graphics that someone would want to look at. Some examples of the latter are Figures 3.18, 4.11b, and 21.11. Many thanks Hiram!

As in the second and third editions, my wife Marilyn Lodge has been instrumental in getting this edition completed. She has been an excellent proofreader, and most helpful in her encouragement to get through the continuous stream of new information on the Everglades. Thank you Marilyn!

Author and Contributors



Thomas E Lodge, PhD, is a self-employed ecologist. Born in Cleveland, Ohio, he has a BA with a major and departmental honors in zoology from Ohio Wesleyan University (1966) and a PhD in biology from the University of Miami in Florida (1974). Nurturing his childhood interest in aquatic biology, he worked for the Cleveland Museum of Natural History during high school and college. There, he became an expert on the fishes of northern Ohio and contributed extensively to the museum's fish collection and to its summer educational programs. In graduate school, Dr. Lodge became fascinated with the Everglades, both academically and personally. In addition to publishing magazine articles on the Everglades, he wrote and directed an educational film

with photographer Jeff Simon (*The Everglades Region, An Ecological Study*, John Wiley & Sons, 1973), and published on the fishes of the region. After receiving his PhD, he became an environmental consultant, specializing in wetlands and aquatic ecosystems. He has led numerous environmental projects directly relating to the Everglades, including the development of methodology for evaluating the ecological functions and values of historic Everglades wetlands, for the purpose of providing "no net loss" of wetlands. He has served on the board of directors of the Tropical Audubon Society and from 1999 to 2004 was an appointed member of the U.S. Fish and Wildlife Service's Multi-Species Ecosystem Restoration Team, which assisted in Everglades restoration strategies dealing with listed species. From 1998 to 2000, he accepted an invited faculty position to teach South Florida ecology at Florida International University, where all editions of *The Everglades Handbook* have been used as course texts. He still works as a consultant, with two recent examples being a reassessment of Everglades restoration options in a team effort with The Everglades Foundation, and protection of the Grassy Waters Preserve, part of the historic Loxahatchee Slough. His professional interest in the Everglades is mirrored in his personal interests. For more than 40 years, he has been a regular observer and photographer of Everglades wildlife, his ultimate relaxation.

Marjory Stoneman Douglas (April 7, 1890–May 14, 1998) is the single name that has become permanently linked to the Everglades. She held a BA degree from Wellesley College (1912), and seven honorary doctorates, including LittD from the University of Miami, and LLD from Barry University. She arrived in Miami in 1915 to work with her father, founder and editor of *The Miami Herald*. In the 1920s, she joined the movement to create Everglades National Park, working with Ernest Coe, David Fairchild, and many others (see "Introduction"). Subsequently, her authority in conservation—wilderness, wildlife, and water alike—grew continuously stronger. In 1970, she formed the Friends of the Everglades, an organization in which she remained active well into the 1990s. Her petite, five-foot-one-inch frame abruptly contrasted with her stature in the environmental arena, where she was internationally recognized as a giant by friends and adversaries alike. In November 1993, President Clinton awarded her the highest honor given to civilians by the United States, the Presidential Medal of Freedom; and on October 7, 2000, she was posthumously inducted into the National Women's Hall of Fame. But despite her early frustrations and confrontations with a male-dominated world, she ultimately said, "I'd like to hear less talk about men and women and more talk about citizens."

A writer for all of her professional life, her best-known book is *The Everglades: River of Grass*, originally published in 1947 and now in its "60th Anniversary Edition" (2007). Her other books include *Florida: The Long Frontier*, *Alligator Crossing*, *Hurricane*, *Freedom River*, *Adventures in a Green World: The Story of David Fairchild and Barbour Lathrop*, *Nine Florida Stories by Marjory Stoneman Douglas*, and her autobiography, *Marjory Stoneman Douglas: Voice of the River*.

Marjory Stoneman Douglas' ashes were scattered in the Everglades, her "river of grass."

Taylor R. Alexander (May 27, 1915–November 30, 2005) was born in Hope, Arkansas. He received his BA degree with a major in biology from Quachita College, Arkadelphia, Arkansas (1936), his MS degree in plant physiology from the University of Chicago (1938), and his PhD in plant physiology and ecology from the University of Chicago (1941). Until he graduated from high school, he spent his early life working at an ornamental nursery, forming his career interest in plants.

Dr. Alexander was associated with the University of Miami from September 1940 until his retirement in June 1977, as botanist (1940–1947), professor (1947), and chairman (1948–1965) of the Department of Botany, and as professor of botany (1965–1977) following a merge of the separate botany and zoology departments into the Department of Biology. During World War II, he took temporary leave from the university to train soldiers headed for battle in various areas including health and procedures for poisonous-gas protection. He authored an identification manual for distinguishing friendly aircraft and ships from those of the enemies for soldiers headed for battle. Following retirement from the University of Miami, he worked for several years as a consultant on many environmental issues.

Some of Dr. Alexander's professional associations were:

- President of Florida Academy of Sciences (1951 and 1970)
- Member of the Governor's Committee on Natural Resources (1967–1970)
- Advisory Committee to Florida's Endangered Land Purchasing Program for Governor Claude Kirk
- Florida Big Cypress Oil Well Site Advisory Committee (1971–1984)
- Metropolitan Dade County Environmental Quality Control Board (1981–1985)

Dr. Alexander's most important contribution to our understanding of the Everglades has centered around the effects of various environmental factors, notably fire and hydrology, on plant community succession. He authored two books, *Botany* (Golden Press, 1970) and *Ecology* (Golden Press, 1973). *Botany* gained acclaim when Harvard botany graduate students used it in preparing for comprehensive examinations. In 2002, he received Florida Native Plant Society's Mentor Award. He published some of the first, detailed descriptions of Florida's plant communities. Many of his periodical publications and special reports are referenced in this book. Dr. Alexander is one of Florida's outstanding and earliest environmentalists. To his death from complications related to myasthenia gravis, he lived in South Miami in the house he and his late wife, Edith, built in 1947. The house was designed by Marian Manley, a close friend of Marjory Stoneman Douglas.

Introductions

INTRODUCTION TO THE FIRST EDITION BY MARJORY STONEMAN DOUGLAS

As many of you may know, I have devoted the greater portion of my 99 years to the Everglades and its related issues, particularly those having to do with that vital ingredient: *water*. Although I have been almost totally blind for some years now, I can still see clearly that the Everglades continues to need help—probably now more than ever before.

The story of my love for Florida and my concern for the Everglades begins with my father, Frank Bryant Stoneman, who had lived in Florida since 1896. First settling in Orlando, he studied for the bar and became an attorney there. But soon he became interested in the new city of Miami where he moved in 1906—with a flatbed press he had taken for a bad debt—and started the first morning paper in Miami, which he called *The News—Record*. Without adequate money, the paper was about to fail, when Frank B. Shutts of the law firm of Shutts and Bowen of Miami, bought control. In 1910, it was renamed *The Miami Herald*, which became the most important newspaper between North and South America.

My father started the paper at the time when Napoleon Bonaparte Broward had run for governor under the then popular slogan of draining the Everglades, primarily to provide new lands for agriculture. Having become aware early of water problems in the western United States, my father wrote vehement editorials protesting the idea of drainage, the consequences of which, he said, people were entirely ignorant. This attitude so enraged Governor Broward that later, when my father won an election for circuit judge on the east coast, Broward refused to confirm his election. My father was always very humorous about that. He said it saved him from a life of shame—of having to run for election every 2 years thereafter.

I became interested in the Everglades immediately following my arrival in Miami in 1915. My parents had been separated in the North when my mother, who was ill, had taken me home to my grandparents in Massachusetts where I grew up and where I graduated from public schools and from Wellesley College. After my mother's death and my own brief, unworkable marriage, I came to Florida to be with my father and to get a divorce. He had recently remarried a lovely woman who became my first friend as I settled in to establish residence with a job on the *Herald*. I found not only that the new relationship with my father would be one of the most important in my life, but that newspaper writing was the thing that I most wanted to do in the world, and that Florida, with its wonderful climate and new associations, was the place I wanted to live the rest of my life.

The city of Miami itself then contained 5,000 people and was not impressive, but it was the country—the flat tropic land, the sea, the great sky, and all the excitement of a new world that stirred my enthusiastic loyalty. I can remember that in those days, the Tamiami Trail went from Miami westward only to the Dade County line, some 40 miles. It was great fun to go out on the Trail to its end for picnics, and see all beyond the wonderful untouched expanse of Everglades.

The idea that the end of the Florida peninsula should be established as a great national park had already been conceived by the man who gave the rest of his life to that pursuit. He was Ernest F. Coe, who had been a nationally known landscape architect but had been stranded penniless in Miami after the devastating 1926 hurricane interrupted the development of those early days. My father, as editor of the *Herald*, was a strong promoter of Mr. Coe's idea for a park, so that—together with Mr. Coe and others—I was immediately made a member of the first committee that worked for it. The committee was chaired by Dr. David Fairchild, and we received great support and assistance from Horace Albright, then director of the National Park Service.

The policy of the federal government was that it did not buy land for national parks. All parks had to be reserved from the public domain or donated to the federal government by states or private