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Introduction

"It is a wonderful river . . . immensely deep and very fine sweet water," wrote a northern visitor to Florida's Indian River in 1884. "The beauties of nature are here very manifest, in fact it is a wonderland. While I sit here in the cabin of our boat writing [I hear] the croaking of the frogs and the cries of animals and splashing of fish on the stillness of this vast wilderness where probably no human foot has trod."¹ Roughly 100 years later observers described the same body of water as a river of mud that was so polluted that its "stressed-out snook and pompano were developing lesions so wide that their entrails were dragging behind them."²

In the intervening years nineteen canals or altered creeks were constructed to flood the most biologically diverse estuarine ecosystem in the United States with freshwater at an average rate of 17,990 cubic feet per second in order to drain the region's agricultural lands.³ In this period the Indian River Lagoon was also changed by the construction of five permanent inlets and divided by sixteen causeways.⁴ Stretching along 156 miles of Central and South Florida, the Indian River Lagoon system is composed of four bodies of water that are connected by nature (or, in the case of the Mosquito Lagoon, by humans). The categorization of the four bodies into one system was formalized in the last decades of the twentieth century. In 1987 the Florida legislature began funding efforts to clean up the bodies by designating the four bodies a single system as part of its Surface Water Improvement and Management (SWIM) program. Two years later, Governor Bob Martinez successfully nominated the river for protection by the federal government. On Earth Day 1990 President George H. W. Bush declared the system a "lagoon of national significance," which led to the formation of the Indian River Lagoon National Estuary Program in 1991. Since that time it became common to refer to the St. Lucie Estuary, Mosquito Lagoon, Banana River Lagoon, and Indian River collectively as the "Indian River Lagoon." Before this slight linguistic change the four interconnected bodies were seldom considered to be parts of a single system, and were referred to individually as "the River" instead of "the Lagoon," which only became common after federal recognition in 1991.⁵

While the Indian River's origins lay in the late Pleistocene Era (125,000 B.C.), humans have inhabited the area for at least 7,000 years. The native Timucua and Ais peoples disappeared within 200 years of Ponce de Leon's 1513 Florida arrival.⁶ As an isolated and neglected outpost of a colony that was itself an isolated and neglected outpost of the Spanish Empire, the extreme northern section of the Indian River was inhabited by over 1,000 Europeans in a series of failed British colonial plantations during the 1760s and 1770s. Later, at the end of the Second Seminole War (1835–42) in this newly acquired territory, the U.S. Congress offered free land to settlers in the region. But isolation and continued tensions with the Seminoles ensured that the region remained largely depopulated until the decades following the Civil War, when newspaper accounts of warm, fish-choked waters with near-magical healing properties attracted thousands of northerners to relocate.

These Reconstruction-era settlers were among the first to make significant attempts to alter the ecology of the lagoon system. Increasingly dissatisfied with their reliance on a steamship monopoly to ship their fruit to northern markets and the noxious odors from the area's decaying freshwater submerged vegetation, the settlers dug a cut through the barrier island at the mouth of the St. Lucie Estuary in the southern portion of Indian River Lagoon. These mostly white, northern settlers came to Florida for its "healthy climate," but found that nature needed a hand to meet their conception of health. The scent of freshwater decomposing vegetation did not fit into their conception of a healthy area suitable for healing their ills.

Late nineteenth-century settlers professed to love Florida for its wilderness, and did not see the forest as the Puritans did, as a wicked place to be tamed. Echoing Romantic writers of the previous generation, settlers often spoke poetically about their primeval "fair lagoon."⁷ Despite this affection for the "wild," these homesteaders heavily manufactured its environs to suit their ideas. Gilded Age settlers brought with them the ecological ethos of their time, having largely come to the Indian River from the land of the Erie, Ohio, and Pennsylvania canal systems.⁸

Indian River settlers were not merely pioneers of a region, or a zone of cultural interaction, but they were breaking new ground by being among the first to cultivate the idea of modern Florida. These settlers sold an image of an orange blossom–scented paradise and so were among the first to make the Florida of the twentieth century, a concept marked more by dredging, filling, tourists, and citrus than the state's natural features. The region's settlers represent the vanguard of a third wave of peninsular Florida Anglo culture, historically and culturally distinct from the southern inland "cracker" and the Caribbean-derived "conch" of the Florida Keys.

The Indian River has always existed in a state of flux; nineteenthand twentieth-century human-made developments represented an intensification of earlier natural trends. Historically, the ecosystem was fundamentally unstable. Hurricanes and other severe storms were the primary forces that created and moved inlets, which in turn determined the contours of the barrier islands and lagoon.⁹ Late nineteenth- and early twentieth-century human-made changes were "antichanges" intended to stabilize the fluid nature of the Indian River ecosystem. These changes have forever altered the region, but the Indian River system has never known stability. Under natural conditions, the system would experience constant evolution, which can be seen in the sediment layers beneath the area. Instead of a narrative merely documenting decline, this book describes a complex system that has at various times been conducive and hostile to animal and plant health, both before and after humans arrived in significant numbers. Far from being a passive recipient of human actions, the system's larger natural forces with which humans were forced to interact suggest that the lagoon delivered troubles as often as it received harm from humans.

These pioneers adapted to life in a simultaneously fertile and hostile environment. Facing heat, mosquitoes, malaria, interaction with Native Americans, and perhaps most important, near-total isolation from the rest of the world, the lagoon's nineteenth-century settlers adapted by agricultural experimentation, altered the ecology of their environment, hunted nontraditional food sources, and modified traditional boats to meet their needs in this watery environment. The last decade of the nineteenth century saw the coming of Henry Flagler's railroad and, with it, the outside world, ending the isolation that forced the lagoon's settlers to be largely self-reliant. The sweeping changes ushered in with the railroad dramatically altered the industry and culture of the lagoon. Despite their isolation, the Indian River settlers existed on the fringes of (and actively participated in) the transcaribbean world. For example, competition from Cuban imports wiped out the local pineapple industry during the late 1890s, and local economies initially relied on salvaging wrecks engaged in the Caribbean trade.

Chapter 2 offers a narrative of the origins of the lagoon and its early inhabitants. Chapter 5 discusses the region after the Second World War, when the Indian River, like most of the Sunshine State, saw its first major population influx. Chapters 3 and 4, the heart of the book, discuss the ambitions and abuses hurled upon the Indian River by successive generations of schemers and dreamers in the nineteenth and early twentieth centuries. The story of the Indian River in the mid-twentieth century is much like that of its neighboring ecosystem, the Everglades, in that the period's engineers used postwar technology and prosperity to fulfill the dreams of their nineteenth-century predecessors by converting a natural system into one largely manipulated by pumps, canals, jetties, impoundments, and reservoirs. The twentieth-century Indian River was altered by humans by dredging and stabilizing inlets, regulating ocean tides by determining the width and depth of inlets, dredging to prevent formation of natural tidal deltas, and regulating freshwater discharge through dams and locks. Additionally, they altered the lagoon bottom by dredging the Intracoastal Waterway, and building causeways and dredge-refuse "spoil" islands, which all significantly changed the system.¹⁰

In the late twentieth century came the first attempts to "restore" the region to its "natural" state. This book suggests that such attempts will necessarily declare an arbitrary historical form to be "normal" for the system. There has been no period when the Indian River system was not without shifting barrier islands, cyclically varying freshwater watershed discharge, and dramatically varying salinity levels due to the ocean influx following the opening and closing of natural inlets.

The dualistic portrayal of humans as wholly distinct from the natural world suggests a longing for a mythic past in which nature existed perfectly apart from human actions. It is now widely understood that Native peoples heavily altered the ecology of pre-Columbian America, but, more important, the narrative of decline that permeates much environmental history fails to adequately treat humans as a fundamental and legitimate part of nature. The relationship between humans and the natural world must not be understood as either "natural" or "foreign" but instead something more nuanced.