

On the Eve of Destruction: People and Florida's Everglades from the late 1800s to 1908

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Florida's Everglades have been the subject of much public discussion during the past century, and most of the current discourse deals with efforts to restore parts of the region to some semblance of its pre-drainage condition. Furthermore, most of the recent scholarly literature regarding the Everglades treats technical aspects of the region's physical characteristics such as geology, hydrology, soils, chemistry, and ecology. Much less has been written about people's historic relationship with the Everglades (or "Glades"). Certainly the work of Marjory Stoneman Douglas, Charlton Tebeau, Nelson Blake, and David McCally provides much needed perspective on the human experience in the Everglades. These writers agree that few people paid much attention to the Glades until the late nineteenth century. Accordingly, we could rely upon wetland scholars such as William Mitsch and James Gosselink who observe that "from the middle of the nineteenth century to the middle of the twentieth century, the United States went through a period in which wetland removal was not questioned. Indeed, it was considered the proper thing to do." An editorial originally appearing elsewhere but reprinted in the *Miami Herald* in 1911 illustrates the mood of many people during this era. Referring to the numerous wetlands in the southeastern United States, one writer comments: "As they are, they are without value—in fact, they are a menace to health, being breeding places for malaria-carrying mosquitoes. . . ."¹

Yet something is missing; we still have an incomplete portrait of people's perceptions of the Everglades from the late 1800s to 1908, when large scale reclamation gained momentum. Should we assume that everyone during this time period favored reclaiming all wetlands everywhere, and that Florida's Everglades were doomed to destruction as a result of such attitudes? If citizens of Florida and the rest of the U.S. are now prepared to spend in excess of \$8 billion in an attempt to repair some of the ecological damage inflicted upon the Glades this past century, we ought to know more about the attitudes of people who lived on the eve of full scale efforts to reclaim the Everglades. The objective of this article, therefore, is to learn if clear connections can be made between popular perceptions of the Everglades and early reclamation efforts (or lack thereof) in the region.

Wetlands posed several problems for nineteenth and early twentieth century Americans. For one, it was thought that swamps and marshes produced foul air that caused malaria, a common disease of the time. Even after it was discovered that certain species of mosquitoes transmitted malaria, wetlands remained frightening environments because they were home to the insects that spread the disease. Furthermore, inasmuch as many people used to earn their living as farmers, wetlands were a nuisance because they not only precluded the planting of traditional crops, they served as a home for birds that consumed crops produced on adjacent uplands. Of course, for people traveling mostly by horse and buggy or even early automobiles on crude roads, wetlands hindered transportation development.²

Despite substantial military activity against the Seminole Indians in South Florida prior to the Civil War, South Florida—especially the interior—remained *terra incognita* for most people throughout the nineteenth century. Wetlands covered more than half the state and almost all of South Florida. The general lack of interest in the Everglades until the early twentieth century was probably the result of a relative abundance of good farm land in other parts of the United States, Florida, and even the slightly more elevated coastal ridge of southeast Florida. Dissatisfied with the state of affairs after joining the union in 1845, Florida officials begged the federal government to study the Glades and determine the practicability of reclaiming southern Florida's swamps. In 1847, the federal government authorized Buckingham Smith to prepare such a report, which he submitted a year

later. In his report, Smith combined personal observations of the Everglades with testimony from military officers who worked in the area during the recent Seminole War. He could not think of a solitary inducement to offer any prospective settler except that the area experienced frost-free winters, a mistaken assertion highlighted by later boosters. It is hard to overstate the idea in the minds of upper class white males during the nineteenth century that land must be made to produce tangible products for people to be of any value. Accordingly, Buckingham Smith concluded that the Everglades could and should be drained by digging canals across South Florida.³

In 1850, Congress tried to help by passing the Swamp Land Act which granted to Florida and other states all of the swamp and overflowed lands within their borders. The act stipulated that proceeds from the sale of these lands were to be used only for the construction of levees and drains needed to reclaim these wetlands. Florida created an Internal Improvement Fund to sell wetlands and spend the revenue on drainage, but due to a lack of interest in the region, there remained little cash with which to carry out Smith's recommendation. Philadelphia businessman Hamilton Disston single-handedly rescued the state in 1881 by purchasing four million acres of swampland in central and southern Florida for \$1 million. Disston and his Atlantic and Gulf Coast Canal and Okeechobee Land Company were initially most active in central Florida, at the northern end of the Everglades watershed. Yet he eventually turned his attention farther south, eyeing the Glades. Because excess water in Lake Okeechobee used to overtop the big lake's southern shore and then ooze across the Everglades on its way to the end of the peninsula, Disston and his chief engineer James Kreamer soon agreed that they must lower Lake Okeechobee if they wanted to reclaim wetlands in the southern portion of the watershed. In a war-torn and poverty-stricken South, such activity began to attract interest.⁴

According to one newspaper editor in 1882, the Everglades were "a region mysterious, unknown, beautiful—a *terra incognita*—of which as little is known as the center of 'the dark continent.'" Yet Hamilton Disston's efforts to drain and farm swamp land in peninsular Florida began to change this attitude. Indeed, Disston's work encouraged two expeditions into the Everglades by people associated with the New Orleans *Times-Democrat*. During the early 1880s, the *Times-Democrat*

was one of several newspapers actively promoting economic development in the post-Reconstruction South.⁵

The first *Times-Democrat* expedition took place near the end of 1882 and began in the lakes and wetlands at the northern end of the Everglades watershed, moved down the Kissimmee River to Lake Okeechobee, through Disston's canals to Lake Hicpochee, to the headwaters of the Caloosahatchee River and on to the Gulf of Mexico at



In 1881, Hamilton Disston saved Florida from bankruptcy by purchasing four million acres of swampland in central and southern Florida. Courtesy of the Florida State Archives.

Fort Myers. The expedition's leader, former confederate soldier Archie P. Williams, could hardly contain himself: "Concerning the richness of the soil I make the broad assertion that its equal is not within the bounds of the United States." The first expedition whetted the appetites of those interested in Everglades development, including many newspaper editors in the North and West who reprinted Williams's accounts in their papers. At about the same time, Will Wallace Harney reported on Disston's reclamation activities in the pages of *Harper's New Monthly Magazine*, contending that "it needs no scientific acumen to discover that the successful drainage of such a deposit will develop an

area of fertility unrivaled even by the loamy bottoms of the Mississippi."⁶

The *Times-Democrat* sponsored a second trip which began in late 1883 at Fort Myers. Archie Williams led his group up the Caloosahatchee River to Lake Okeechobee, and then down the sawgrass marshes of the Everglades to extreme southwestern Florida. At the end of this second expedition, however, a disappointed Williams reported that "in my opinion their drainage is utterly impracticable, and even if it were practicable the reward for such an undertaking would be lands that could be utilized for no other purpose than as a grazing ground for livestock. They are nothing more nor less than a vast and useless marsh,

and such they will remain for all time to come, in all probability.” Williams’s dejection apparently convinced the editor of the *Times-Democrat* who lamented in early 1884 that the Everglades were in fact far different from what had been previously imagined: “We regret to learn this,” the editor observed, “but it is better that it should have been brought out now, instead of the world being encouraged into the mistaken belief that the Everglades could be redeemed.”⁷

John W. P. Jenks read Archie Williams’s assessment of the Glades and he undoubtedly agreed. In 1884, Jenks privately published a short book on his experience hunting in Florida and the “miasmatic swamps and everglades around Lake Okeechobee” ten years earlier. Jenks claimed that his Florida sojourn was for the purpose of collecting biological specimens for the museum at Rhode Island’s Brown University. After reaching Jacksonville in early 1874, he inquired as to the best route to Lake Okeechobee, but found that the lake was *terra incognita* even to Floridians. More important, however, is Jenks’s recognition that the learned people of his time read many of the same things. After commenting on the raw character of the Florida landscape, Jenks adds: “Into such a wild region you must go if you would study nature first hand instead of second. Hence the reason so few naturalists do anything more than study books and take the observations of others and use them second-handed.” In other words, it is likely that impressions of the region developed by a handful of people may have become very widespread.⁸

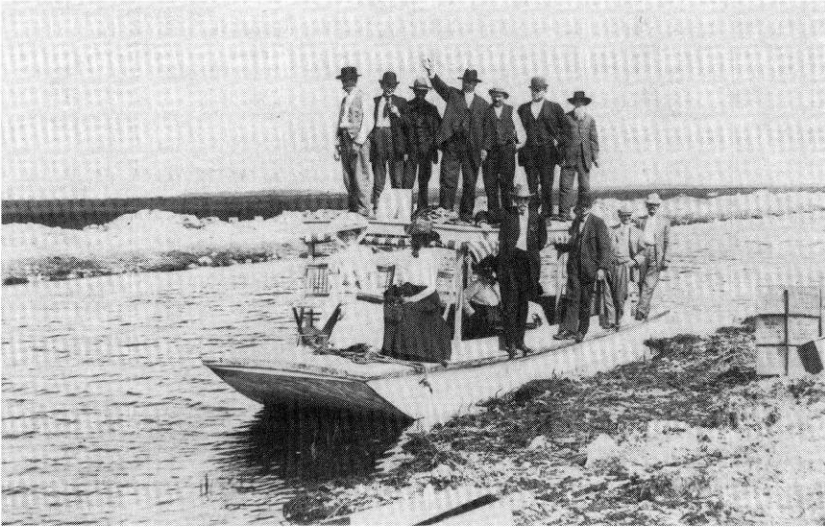
In a similar vein, Frederick A. Ober—who participated in writing a series of adventure books about places in Africa, Europe, the Caribbean, and other parts of the tropics—published a book in 1887 entitled *The Knockabout Club in the Everglades: The Adventures of the Club in Exploring Lake Okechobee* [sic]. Although only two chapters of this work treat Lake Okeechobee and the Everglades, Ober’s comments are instructive. He correctly relates that at the time, the big lake had no well defined outlet and that “the accumulated drainage of thousands of square miles of territory slowly percolates through the Everglades by thousands of channels with countless ramifications.” When his fictitious exploring party finally encountered the southern shore of Lake Okeechobee, immediately adjacent to the Glades, they found sleep impossible due to swarms of mosquitoes. Regarding their departure from the region, Ober notes: “It was a fitting ending to our dreary voyage along the Everglade shore that we should leave the forsaken stretch of marsh

and swamp, and enter upon the home stretch with the repulsive features softened and chastened by the moonlight. Farewell, forever, to the Everglades!”⁹

Frederick Jackson Turner may have declared that the frontier in the United States disappeared by 1890, but most of peninsular Florida at this time remained a virtual wilderness. The 1890 census recorded less than 400,000 people in all of Florida and less than 2,400 on the peninsula south of Lake Okeechobee. Indeed, according to the 1890 census, “a large proportion of the area of the peninsula of Florida is practically without settlement. This appears to be due in part to the direction of the general movement of population, which has been westward from Georgia and the Carolinas; in part to the want of good harbors, and other inducements to settle upon the coast, and thus to create starting points for the settlement of the interior; but also, and very largely, to the fact that a considerable portion of the area is swampy and difficult of access, and, consequently, remote from markets.”¹⁰

Few people knew much about South Florida (let alone the Everglades) in the 1890s, but there are some sources that deal with perceptions of the region. Travel books are one such source of information. As John Jenks observed earlier, many authors of travel books probably did not visit such isolated places as the Everglades, but relied on hearsay, opinion, and other published sources to write descriptions of the region. In 1889, for example, James Davidson published his guide for Florida tourists and settlers and included comments on southern Florida. Of this region, he believed “there can be nothing but insects, vermin, mud, malaria, Indians, desolation, abomination, discomfort, disease, black death, and poverty—where nothing will grow but comptie [from which an edible starch was produced] and mangroves, and where nobody lives anyhow.” Davidson noted that the Glades were usually covered with drinkable water from an inch to several feet deep, and that tree islands dotted the landscape. He acknowledged Disston’s efforts in South Florida, suggesting that friends of the enterprise are hopeful that the Glades could be drained, while admitting that others were less hopeful. Davidson concludes that “it does not seem impossible that at least a part of these Everglades waters may be drained off. It seems to be a question mainly of canal capacity.”¹¹

A year later, Charles Norton produced the first edition of his *Handbook of Florida*. He contended that Dade County was inaccessible



Everglades expedition. HASF 76-51-127.

to the ordinary tourist and unavailable to the average settler. Norton argued that in addition to the remnant Seminole Indian population, “only the most enterprising and adventurous hunters and cowboys” visited South Florida’s interior. In 1895, Norton produced a third edition of his handbook. He described the Glades thus: “It is not a swamp in the ordinary meaning of the term, but rather a shallow lake with a hard rock bottom, and grass growing to a height of four or five feet above the surface of the water.” Like Davidson, Norton noted the presence of tree islands and mentioned numerous canoe-width channels, but he warned that it was easy to become hopelessly lost in South Florida’s uncharted interior.¹²

During the early 1890s, railroad developer Henry Plant considered the possibility of extending his lines across the Everglades. To satisfy his curiosity, Plant told one of his leading lieutenants, James E. Ingraham, to organize an expedition across the Glades in early 1892. Wallace Moses (official secretary for the twenty-one men who comprised the expedition) and Alonzo Church later wrote detailed accounts of their experience, which were published in separate issues of *Tequesta* more than a half century ago. In addition to their own views, Moses and Church recorded perceptions of the Glades expressed by others.¹³

In any event, the group began their three week long expedition from Fort Myers to Miami in March 1892. Moses remembered that some

locals thought the party would turn back shortly while others believed they would successfully cross the Glades. Church maintains that before he left, locals offered several accounts of the Everglades. One man claimed that sawgrass “extended all the way across the Glades and would be an impenetrable barrier to our advance.” Another informant insisted that the Glades were a “labyrinth of bayous running through a dense jungle of tropical growth,” and that they would soon become lost and starve before finding their way out. Still others were aware that Seminoles cultivated many of the region’s more elevated tree islands. Church also remembered being told of “mosquitoes, red bugs, alligator fleas... and a thousand other horrors, known and unknown.” All of this frightened Church, but he remained captivated by the prospect of exploring what he and many others considered a mysterious region. The fact that the group later verified most of these stories suggests that most southwest Floridians understood the Glades reasonably well.¹⁴

The expedition’s leader, an engineer named John Newman, encouraged his men before departure: “Should our expedition be successful it may result in good to the whole country, for if this land can be rendered fit for cultivation it will be the most productive of any in this state... . It would be a glorious undertaking, for charity could ask no nobler enterprise, ambition no higher glory and capital no greater increase than would result from the redemption of this land.”

On March 22, Wallace Moses observed that the land “seems rich and would be easily cultivated once the water is permanently removed.” A week later, however, Moses conceded that “this has been a terrible strain on everybody. Locomotion is extremely slow. The bog is fearful and it sometimes seems as though it would be easier to stay in it than to go on. Both legs up to the waist in mud...the boats are very necessary to enable one to pull himself out of the mud, and even then the labor is most exhaustive.” Church concluded that “it is enough to make a man swear to be contented ever afterwards with a board for a bed and a clean shirt once a week.” Sydney Chase also made the trip and later asked Church if he wanted to invest in Everglades land, but Church had had enough: “Not on your life,” he responded, “I wouldn’t be caught dead with any of this property.” Fifteen years later, Wallace Moses had moved to West Palm Beach and thought “there is good land along the east side but doubtful if the main part of the Glades are of much value.”¹⁵

In the meantime, Hamilton Disston's company dug several canals in central and southern Florida connecting many lakes in Florida's heartland between the town of Kissimmee and Lake Kissimmee—the southern edge of which becomes the Kissimmee River—a sinuous waterway (before channelization in the 1960s) that empties into the north shore of Lake Okeechobee. He also helped connect Lake Okeechobee to the Caloosahatchee River. Despite some initial modest success, the nationwide Panic of 1893 dealt a crippling blow to this enterprise. The Florida Legislature attempted to boost confidence in the project by preparing a pamphlet that outlined Disston's work in Florida. Yet after a tremendous storm in September 1894 flooded almost all of South Florida, some farmers on the edge of the Everglades complained that Disston's canals were responsible for the associated flood damage. Swamped with financial difficulties, Disston took his own life in 1896, ending his company's reclamation efforts in South Florida.¹⁶

Other persons in the late nineteenth century engaged in what turned out to be premature efforts to promote Everglades reclamation. In June 1896, John MacDonald commented in the *Miami Metropolis* that “the improvements in machinery for draining, dredging and excavating, as well as of the steam plow, render these rich sugar lands of Florida a very safe and highly lucrative field for the investment of capital.” MacDonald also noted the relationship between wetlands, mosquitoes, and malaria. “And it is the universal doctrine,” he assured his readers, “that countries do grow more healthful as drainage progresses, while countries requiring extensive irrigation grow more malarial.” The fact that these comments appeared on page six of an eight page newspaper suggests that many South Floridians paid little attention to the Everglades at this time.¹⁷

In 1898, the Florida East Coast Drainage and Sugar Company announced plans to reclaim eight hundred thousand acres of Everglades land. One of the company's officers, Rufus E. Rose, told the *Miami Metropolis* that draining the Glades seemed “wild and visionary.” Yet he insisted that it “requires only a visit to similar lands in the Kissimmee Valley [where Hamilton Disston had been active], formerly vast marshes, now fertile fields, to convince impartial minds of their great agricultural future.” Rose later became Florida's state chemist and remained a constant promoter of Everglades development. Unfortunately, Rose also helped promote the impression in the minds of many that freezing temperatures would not visit the Glades. “Frost to damage the most

tropical fruits and tender vegetables,” he insisted, “has never occurred.” In any event, little became of the enterprise.¹⁸

Meanwhile, Hugh Willoughby explored the Glades in 1897, and published a book about his trip a year later. He argued that “the popular impression has always been that the Everglades is a huge swamp, full of malaria and disease germs.” He insisted that “the general impression of what constitutes the Everglades is absolutely erroneous.” Willoughby noted the explosive development in and around Miami, commenting that the region’s “wilderness has been rudely marred by the hand of civilization.” In the next breath, however, he asserted that it is in the nature of things that wilderness must gradually be encroached upon. In all likelihood, Willoughby found people too busy clearing land along southeast Florida’s Atlantic Coastal Ridge to pay much attention to the Everglades. Indeed, editors of the *Miami Metropolis* published a list of “things we would like to see” in a June 1896 issue. They called for bridges, sewers, new houses, and other infrastructure—but absent from this list was any mention of Everglades drainage. Turn-of-the-century South Floridians may have avoided the Everglades because they feared malaria, but more likely, they were busy with plenty of other profitable opportunities along the slightly more elevated coastal strip.¹⁹

While sailing from Miami to the southwest Florida coast, Willoughby noticed several off-shore springs which he correctly believed originated in the Everglades. Indeed, while paddling his boat through the water-covered Glades, he noticed springs everywhere. “All this moving water cannot be accounted for by the rain alone,” he thought. “and the water is too hard for rain water, so in all probability more comes from below than above.” Willoughby had no idea that he was traversing the Biscayne Aquifer—one of the most productive aquifers in the world. It is hard to gauge how much Willoughby’s writing influenced others, but later authors of travel books repeated the misconception that much of the water in the Glades came from distant groundwater sources rather than precipitation in South Florida that entered the Biscayne Aquifer.²⁰

Jacksonville’s *Times-Union* initially expressed approval of wetland drainage in the Glades and elsewhere in Florida. “Besides the millions of acres that will be reclaimed in south Florida,” the editor argued in 1898, “there are thousands of others only second in productiveness, and these will be reclaimed from Pensacola to Miami.” Hinting that some people did not agree, the editor concluded that “the immediate future

will prove an era of phenomenal development for this State, and this men may retard but cannot stop even when they are so unpatriotic as to use power or influence to that purpose.”²¹

Finally, writing in 1899, long-time South Florida resident I. L. Roberts supported Everglades reclamation. He claimed that he made an effort to attract businessmen to the Glades in 1876, “and has ever since stood astounded at the negligence and disinterestedness of capital on this subject.” To him, it seemed incomprehensible. As far as Roberts was concerned, “it seems as if nature has placed this wonderful cornucopia at our hands and merely asks us to empty it at our pleasure.”²² On the other hand, the editor of the *Miami Metropolis* probably came closest to most people’s view of the Glades in the late nineteenth century when he suggested that visitors to Miami should “not fail to take a trip up the [Miami] river to the rapids and look upon that vast mysterious waste known as the Everglades.”²³

Prior to 1900, the federal government had nothing to do with wetland reclamation. As part of the Rivers and Harbors Act of 1899, however, Congress authorized a survey of the Kissimmee and Caloosahatchee Rivers with a view to improving navigation. Low water during the winter dry season hindered navigation, a vital concern for people who lived where there were no roads. W.H. Caldwell conducted a preliminary survey of the region in 1899 for the U.S. Army Corps of Engineers. Caldwell found many settlers along the Kissimmee River all the way down to Fort Bassinger. Yet the last twenty to twenty-five miles of the river were uninhabited and “bordered by an impenetrable marsh, which extends back from the river for many miles on either side.” Caldwell added that “Lake Okeechobee’s borders are similar to the lower end of the Kissimmee River.” He found the lakeshore almost deserted except for a few orange groves on the north shore near Taylor Creek, the beginnings of a town eventually named Okeechobee. As for the Caloosahatchee River valley, Caldwell found fruit and vegetable farms from Fort Myers inland to Fort Thompson, but he found almost nobody living between Fort Thompson and the big lake.²⁴

As a result of this reconnaissance, Caldwell argued against improving the entire waterway from Kissimmee to Fort Myers. He suggested improving the Kissimmee River between Kissimmee and Fort Bassinger, and the Caloosahatchee River from Fort Thompson to Fort Myers. The intervening area was virtually uninhabited and Caldwell concluded that



A dredge with a team of workers creating a drainage canal. HASF 85-226-4.

it had no immediate future. Furthermore, farmers and ranchers along the inhabited stretches of the two rivers spoke out against improving the entire route. Kissimmee River people feared that improving the lower portion of their river might permanently lower water levels throughout the river. Caloosahatchee River residents resurrected charges that improving the upper section of their river would allow excess water from the big lake to flood them out. Finally, Caldwell contended that “the only interests demanding a through route from the Caloosahatchee to the Kissimmee are tourists, but such travel is too insignificant to be worthy of consideration.” Again, it appears that central and south Floridians rejected moves that would lead to Everglades development, not because they disapproved wetland development generally—but because they were trying to develop their own property elsewhere.²⁵

The late 1890s and early 1900s represent the heart of the Progressive Era, a time when government at all levels abandoned *laissez-faire* policies for greater involvement in social and economic issues. For example, most early twentieth century Progressives believed that the nation could (and should) make better use of its natural resources. Charles MacDonald, former president of the American Society of Civil Engineers, made the case for human intervention in his annual address for 1908: “If it can be proved that two blades of grass can be grown where one has heretofore been found to be the limit, it is certain that the sources of power in Nature have been scientifically utilized, and the general wealth of the

country correspondingly increased.” Converting the apparently “useless” Everglades into productive, tax-generating farmland was a Progressive dream. Jacksonville’s *Times-Union* appeared to agree when it argued in 1899 that Everglades reclamation would “make us independent of the sugar tribute now demanded [from foreign sources], and change the unfortunates of our slums into self-respecting self-governing American farmers.” In South Florida, F. A. Hendry made the case for reclaiming the Everglades in 1906: “Old Dame Nature has been fixing up this trick for ages. She never does it all, but always leaves something for man to do. It is here [in the Everglades that] she temptingly invites man to roll up his sleeves and pitch in.”²⁶

At the turn of the century, preservationists—a relatively small but vocal minority—placed much more emphasis on recreation and aesthetics than conservationists of the time. On the other hand conservationists, as Samuel Hays maintains, were “the apostles of the gospel of efficiency [and they] subordinated the aesthetic to the utilitarian.” Everglades drainage became part of a nationwide movement in the early twentieth century to eliminate natural resource waste. Imbued with the Progressive spirit, Congress passed the Newlands Reclamation Act in 1902, legislation that funded irrigation projects designed to make arid lands throughout the West agriculturally productive. At the same time, drainage organizations around the country lobbied for a similar national drainage service to help reclaim wetlands. Congressman Halvor Steenerson (from Minnesota) introduced such legislation in 1906. The *Pensacola Journal* supported the bill: “It means that tens of millions of acres of the most fertile lands imaginable, which has lain idle for ages, may be converted from dismal and pestilential swamps and useless bogs into highly prosperous homes, to become the garden spots of the nation.” The hoped-for drainage service never materialized, but agitation to “make better use” of wetlands continued and Congress created a Bureau of Drainage Investigations within the USDA’s Office of Experiment Stations in 1902.²⁷

As a result of the Ingraham Everglades exploring expedition in 1892, Henry Plant lost whatever enthusiasm he may have had for the Everglades, but Henry Flagler hired James Ingraham to help extend his railroad down Florida’s east coast during the 1890s. The railroad reached Flagler’s intended terminus—the Palm Beaches—in early 1894. A devastating freeze in early 1895 inflicted substantial damage upon

many Florida farmers, yet Miami had been spared. South Florida pioneer Julia Tuttle suggested to Flagler that he extend his line to Miami, and by April 1896, Miami had a rail connection to New York. Two months later, Miami's first newspaper, the *Metropolis*, raved that the trip from South Florida to New York could be made in forty-four hours. Before the railroad, it took two days to go from Miami to Lake Worth, just sixty-three miles to the north. It would be several more years before Everglades development, but Flagler's railroad began the process of radically transforming South Florida.²⁸

The pace of change in South Florida accelerated after 1900. People poured into the region and some of these spilled into the Everglades. For one thing, fishermen began to settle the shores of Lake Okeechobee. Commercial fishermen took tremendous numbers of catfish from the big lake. Hunters also settled the shores of Lake Okeechobee at the turn of the century. They pursued higher-priced otter and racoon skins during the winter months, and plumage-producing birds in spring—a significant source of income. Plumes were in demand because they commonly adorned women's hats during the late nineteenth and early twentieth centuries. Florida passed bird protection laws in 1877, 1879, and 1891, but these proved ineffective. In 1900, the federal government passed the Lacey Act which prohibited interstate commerce in birds protected by state law. The National Audubon Society provided wardens for South Florida, the most famous of whom was Guy Bradley who was shot to death in 1905 after confronting plume hunters. Kathryn and Alfred Hanna painted this graphic picture of plume hunting: "To get the most beautiful plumes, birds had to be shot while on their nests. After they dropped, the plumes were torn off and the bird cast aside. Back in the nest the young weakened and starved to death or fell from the nest through sheer inability to stand up and were drowned. Nesting areas frequently included hundreds of birds. When such a colony was shot up nothing was left but a scene of desolation with dead birds strewn about, feathers scattered among the starving young, while vultures wheeled in for a square meal."²⁹ When Julian and A. W. Dimock complained to an old "Florida Cracker" about the slaughter of birds, they received the following response: "Every egret and long white that's shot in this country is killed on an order from New York. Your rich merchants send agents down here to hire hunters and Indians to get plumes for them." Dimock's informant added most plume hunters

struggled to survive, while northern tourists “bring with them an automatic shotgun and a repeating rifle and bang at everything that flies or crawls.”³⁰

In 1904, Charles G. Elliott, a drainage engineer within the USDA’s newly created Bureau of Drainage Investigations, made a preliminary investigation of the Glades in an effort to determine the feasibility of draining a small tract for experimental use. He noted that Henry Flagler’s Florida East Coast Railroad had already spent a great deal of money trying to clear and enlarge existing rivers along Florida’s lower east coast. Their operations were intended to enhance winter fruit and vegetable production by reducing flooding along the short rivers and adjacent arms of the Glades that extended across the coastal ridge toward the ocean. Elliott observed that no Glade land had been adequately drained to produce crops during the entire year. He recommended *gradual* development of the Everglades as demand for produce increased, using dikes to protect individual farms. This suggestion met with little favor among those who had high hopes for Everglades development, but in any case, Elliott’s report attracted little attention because relatively few people cared about developing the Glades.³¹

Only with Napoleon B. Broward’s decision to run for governor of Florida did the Everglades attract more widespread attention. It was Broward, more than anyone else, who forced the issue of Everglades drainage upon the public. Broward canvassed the state in 1904, promising (among other things) to drain the Glades. One author contends that Broward adopted the Everglades issue in an attempt to put some political distance between himself and other candidates. This same author adds, however, “in allowing the land question to begin to dominate his speaking, Broward was faced with all the rhetorical liabilities surrounding the issue.” Despite winning the Democratic primary elections (and eventually the general election) in 1904, Broward lost Lee and Dade Counties during both Democratic primaries. Broward’s failure in these counties suggests that many of the region’s voters (virtually all white males, most of whom were Democrats) were uncertain or even apathetic regarding Everglades drainage. Moreover, there were those who favored Broward but not Everglades drainage. For example, one South Floridian later wrote the *Fort Myers Press*: “I voted for Governor Broward in both primaries, but not on account of his drainage scheme, as that, to my mind, is anything but a wise or practical operation.”³²

Shortly after his inauguration in early 1905, Governor Broward called for legislation creating a drainage district encompassing much of South Florida. This district would have the power to levy taxes, but courts soon declared the legislation unconstitutional. Broward then went to South Florida to make his own inspection of the Everglades. Acting as his own engineer, he devised a plan for draining the Glades and used the few remaining dollars in Florida's Internal Improvement Fund to obtain a couple of dredges to begin digging canals from the southeast coast to Lake Okeechobee in July 1906. Broward spent a tremendous amount of energy supervising and attending to drainage details and explained his enthusiasm for Everglades development: "This land would have remained a wilderness and would have been inhabited by the Indians until the dawn of the millennium had those who preceded us been as weak as the majority of those who quibble now, and stand on the bank and shiver and shake, instead of plunging in and doing something."³³

In 1906, the governor backed an amendment to the Florida constitution, which overcame the court's objections. Broward engaged in yet another public relations campaign on behalf of his Everglades drainage project. As part of this campaign Broward made speeches around the state; he even prepared an open letter to the people of Florida. He insisted that "it would indeed be a sad commentary on the intelligence and energy of the people of Florida to confess that so simple an engineering feat as the drainage of a body of land twenty-one feet above the level of the sea was beyond their power." Broward sincerely believed that draining the Glades was a simple matter, and that the total cost would not be more than a dollar per acre. Confident of his plan, Broward claimed, "I can do the whole business in five years at the outside and turn the everglade swamps into an earthly paradise... . The main canals would lower the level of the lake so that settlers could move in even before the lateral canals were completed." When somebody suggested that South Florida's peat soil would burn after drainage [as it eventually did], Broward retorted that "if such a thing as a large area of land catching fire and burning up as the opponents claim had been possible, the great bogs of Ireland would have been ash heaps long before St. Patrick drove out the snakes." Asserting that Lake Okeechobee was twenty-one feet above sea level and that water would run "downhill" toward sea level upon

completion of the canals, he branded those who maintained that the Glades could not be drained as tools of corporate interests.³⁴

Florida's newspapers recorded much of the discussion regarding Everglades drainage in 1906. Some writers questioned the feasibility of Broward's plan; others questioned its desirability; still others favored drainage but not Broward's plan. Finally, many people confessed that they simply did not know much about the Glades. For instance, the *Ocala Banner* cautioned that "care should be taken to distinguish between the naked proposition that the Everglades can be drained...and the method adopted by the board to accomplish this gigantic enterprise." One Kissimmee resident went even further, simply ridiculing Broward's plan. "The profile drawings attached to the governor's appeal must have been made in a kindergarten. They are absolutely valueless.... To show one body of water [Lake Okeechobee] higher than another [sea level] on a plain and then draw a straight line from the highest to the lowest point and call that an engineering drawing is something very novel."³⁵

After initially supporting Everglades drainage, Jacksonville's *Times-Union* eventually assailed practically everything Governor Broward called for, including Everglades reclamation. In March 1906, the *Times-Union* pointed out that only one million of Florida's thirty-seven million acres of land were in cultivation. The paper suggested that the state would be better off devoting its energy to attracting immigrants from other states to farm this unoccupied land closer to the heart of Florida's existing population. "It is not yet certain that the Everglades can be drained," the *Times-Union* editor maintained; "it is not yet certain that they are worth draining."³⁶

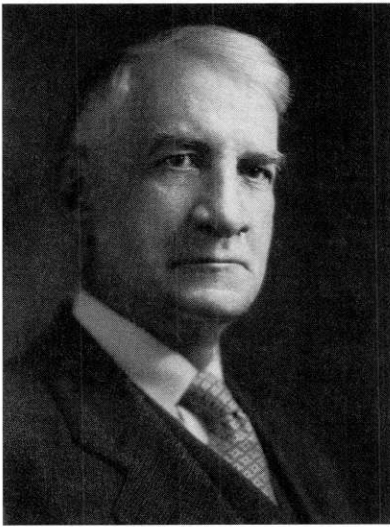
In August 1906, the *Times-Union* insisted that draining the Glades (or any other wetlands) would cost far more than Broward's suggested



Governor Napoleon Bonaparte Broward (back row, right) on an Everglades drainage project tour in 1906. Courtesy of the Florida State Archives.

average of one dollar per acre. The editor contended that no one can know how much it will cost to drain the Everglades until they are surveyed—and the state had no plans for a survey. Making the case as plain as possible, the newspaper drew this analogy: “Now if a stranger should come along and give you this advice—to drain land you didn’t need, to commence digging without knowing how much it would cost, without knowing if you could drain it or whether it would be worth anything if drained... you would leave and not be slow about it.”³⁷

No less a figure than the father of Marjory Stoneman Douglas—Frank B. Stoneman—had much to say regarding Everglades drainage. Frank Stoneman helped establish and edited for many years the *Miami Evening-Record*, which eventually became the *Miami Herald*. Like many people of his time, Stoneman initially supported wetland drainage in South Florida. In April 1906, he spoke in favor of Broward’s activities:



Frank B. Stoneman initially supported wetland drainage in South Florida, but soon became an outspoken critic of the matter after receiving a letter from a civil engineer who argued that Broward’s reclamation plan was inadequate. HASF 53-1-10.

“The wonder is that there should be found any in the State who object to it.” Indeed, Stoneman thought that the *Times-Union’s* change of heart came as a result of influence from railroad corporations who believed that they were entitled to receive the Everglades in return for constructing lines in the state. He argued in April 1906 that “the only opposition to the governor’s operations has been manufactured and festered from one source. The Jacksonville newspapers, whose interest in the people has always been subordinate to their interest in receipts from the corporations...are the center of opposition to the great movement.” Claiming that other newspapers that opposed Everglades drainage were simply following the

lead of the Jacksonville press, Stoneman insisted that “the sentiment is manufactured and the factory is located in Jax.” Later that year,

however, Stoneman changed his mind. He received a letter in October 1906 from Alfred Newlander, a civil engineer from St. Augustine, who argued that Broward's reclamation plan was inadequate. Stoneman immediately became an outspoken critic of drainage operations and called for more thorough investigation of the matter. In February 1908, Stoneman argued that "the ardent advocates of the drainage of the Everglades show a lamentable ignorance of conditions in this section of the state."³⁸

Up to this time, Stoneman's competitor—the *Miami Metropolis*—remained relatively quiet on the drainage question and on Broward's proposed constitutional amendment creating a drainage district for the Everglades. In April 1906, however, one South Florida farmer wrote the *Metropolis*, complaining that he was tired of periodic flood damage. He favored draining the Glades, admitting that some say it is not possible. If it is not possible, he asked, why were the railroads still interested in these wetlands? He viewed corporate interest in the region as a sign that the Glades could, in fact, be drained. On the other hand, a central Florida citrus farmer expressed local concerns in a letter to the USDA. His farmer friends thought that large and deep canals in South Florida "might lower the groundwater level of practically all of the state that is adapted to citrus fruits and consequently injure [our] groves by robbing the of their supply of moisture."³⁹

In September 1906 the *Miami Metropolis* reprinted articles from several of Florida's newspapers regarding the Glades. The articles reprinted suggest that many Floridians remained unconvinced of the efficacy of Everglades drainage. For example, the *Pensacola Journal* commented on the Everglades debate between Broward and Pensacola's State Senator John S. Beard. Beard argued that the court still had not decided whether or not the state owned the Everglades. Therefore, it would be foolish to begin draining the Glades if the court later determined that corporations were entitled to the land. The *Journal* insisted that "we do not say that this point alone should determine the whole question of supporting or opposing the drainage amendment, but we do say that it is a question that will cut a large figure in the case and ought to be answered."⁴⁰

The *Punta Gorda Herald* summarized what was probably true for many people of the time: "the reason that the *Herald* has had nothing to say on the much discussed problem of drainage of the Everglades is

simply and candidly that the *Herald* knows nothing about it... . The *Herald* is utterly obfuscated.” Continuing, the *Herald* summarized the debate: “On one side is arrayed the Governor of the State, a number of respectable and honest newspapers and many reputable, upright and intelligent citizens... . On the other side, however, there are a number of capable and honorable newspapers and a good many patriotic, able and conscientious citizens who contend that the drainage of the Everglades is impractical, wholly unnecessary and not worth the cost.”⁴¹

The *Tampa Times* remarked that the coming election on the drainage district constitutional amendment “will not reflect any discriminating knowledge of the subject on the part of the voters, for 95 percent of us don’t know enough about the subject to warrant us in voting one way or the other.” The *St. Augustine Record* agreed and advocated caution: “A majority of the newspapers of Florida come frankly with the statement that they are unable to get their bearings on the Everglades drainage discussion and the constitutional amendment. That being the case, would it not be very unwise to vote for something admitted to be an uncertainty?”⁴²

A week after votes were cast on the Florida drainage amendment in November 1906, the *Times-Union* reported complete returns for twenty counties, partial returns from twenty others, and nothing from six panhandle counties. In addition to being incomplete, these returns generally reflect the opinion of the relatively few white males who voted. Furthermore, a person’s vote on the amendment was not necessarily a reflection of one’s attitude toward drainage or the Everglades. Nevertheless, these returns do reveal much ambivalence regarding Broward’s plan to drain the Everglades. Throughout Florida, 6,007 voters favored the drainage amendment but 10,725 were opposed. Just nine counties reported a majority in favor of the amendment, eight of which lie north of Orlando and the Everglades watershed. Lee County stood alone among central and southern Florida counties favoring the amendment, with a lopsided tally of 419 in favor and 14 against. This may reflect the strong support of the *Fort Myers Press* which lobbied in favor of the amendment. It may also reflect the views of Caloosahatchee River valley farmers as indicated by these comments found in the *Fort Myers Press* on September 28, 1906: “The settlers say as a rule they went there almost penniless and have managed by hard labor to bring their groves into bearing which now promise them handsome incomes

but are liable to be destroyed at any time by overflow and they appeal to the voters of the state to protect them from this threatening disaster.” Yet Monroe County voted solidly against the amendment (76 in favor, 254 against), as did Dade County (350 for, 487 against). Perhaps this reflected, in part, Monroe County’s relatively small stake in the Glades. It may also have reflected the opposition of Frank Stoneman and his newspaper.⁴³

After having similar legislation declared unconstitutional in 1905 and failing to pass a constitutional amendment on the issue in 1906, Florida’s legislature created the Everglades Drainage District (EDD) in 1907—a poorly conceived entity which managed (for a time) to avoid constitutional scruples. When Governor Broward requested assistance from the USDA, James O. Wright was instructed to investigate the Glades. His mission was to ascertain the suitability of soils for agriculture; to determine if the Glades could be drained and if possible, to prepare a drainage plan; and to estimate the cost of such a project. Wright found the data Broward used and placed surveyors in the Everglades during the winters of 1906-7 and 1907-8.⁴⁴

Wright’s leader of Everglades field work during the first winter, John T. Stewart, prepared a report of his investigations shortly after his return to Washington, D.C., in May 1907. Referring to the Big Cypress Swamp and land immediately north, Wright’s subordinate insisted that “there can be no drainage of any large section in this area without affecting that of another as the divides are only noticeable during low water.” Stewart noted that they needed to do much more work in order to determine the best routes for canals, estimates of their cost, and value of land once drained. “There is some doubt in my mind about the value of the Everglades proper for agricultural purposes if drained,” Stewart concluded, “but the country lying east and west of the Glades [along the coasts] are the lands which need immediate attention and will be greatly benefitted by the lowering of Lake Okeechobee.”⁴⁵

Stewart advocated interviewing older residents regarding their views on draining the Glades as a way of gaining their confidence and learning how to satisfactorily answer any objections. In fact, he spoke with many South Floridians before he wrote his own report. Stewart observed that “many in the vicinity of Miami do not want the Glades drained.” He noted that one surveyor and tax collector in Miami thought that “there is land enough without the Glades.” This person prophetically added

that “they [the Glades] would not be a desirable place to live on account of the distance from markets and poor roads.” Several people expressed their fear of overproduction if the Glades were drained for agriculture, and others told Stewart that the Glades warmed the cold northwesterly winds during the winter. “What they want,” Stewart concluded, “is enough drainage to prevent flooding [along the Atlantic coast] in the rainy season.”⁴⁶

As seen earlier, however, residents of the Caloosahatchee River valley spoke out in favor of Everglades drainage largely because they became convinced that controlling Lake Okeechobee would prevent flooding along the river. Yet not everybody in Lee County favored drainage. One former Indian agent and Fort Myers resident argued that “climate is really the only thing of which this country can boast.” The Lee County Superintendent of Schools argued that only the lands immediately south of Lake Okeechobee would be worth draining. Finally, a timber estimator from Fort Myers shared a belief held by many people on both east and west coasts that soils of the southern Glades were too thin and rocky to be worth reclaiming.⁴⁷

On February 28, 1908, the front page of the *Miami Metropolis* blared: “It is not a difficult task to drain the Everglades, said U.S. Government expert Wright, in an able discussion last night.” Apparently Wright could not resist the temptation to address the region’s potential—even before he had finished collecting data necessary for his forthcoming report. By this time, the *Miami Metropolis* had swung solidly in favor of draining the Glades. Despite the fact that no one had ever tried to drain such a large wetland as the Glades, the *Metropolis* assured its readers that “he [Wright] has done enough work of this kind to show that there are no engineering difficulties to overcome in the draining of the Everglades.” Almost parenthetically, the *Metropolis* added that Wright’s opinion of the Glades is at least partially based on drainage projects he had been associated with in Louisiana, “and he sees no reason why results should be different here.” Wright (like Broward) unwisely led people to believe that the project was simple and that all of the soil would be extremely productive when drained.⁴⁸

Finally, turn-of-the-century non-fiction writers usually expressed a combination of attitudes toward the Glades. Some, for example, appreciated the region’s beauty and mystery. Writing for *Century Magazine*, Edwin Dix and John MacGonigle contend that “no description of the

physical features of the Everglades can possibly convey any true idea of their beauty and their charm... . Both charm and beauty blend in a strange, sweet sense of mystery, which even one least responsive to this new mood of nature cannot possibly escape." As drainage became imminent, however, other writers took a different approach. After crossing the Glades, another author remarked that his experience was that "one meets delay in the Everglades, but not danger... . Crossing the Everglades of Florida in a canoe is not an adventure, it is a picnic."⁴⁹

A utilitarian tone creeps into other discussions of the Glades: "The demand for the work is so universal, its benefits so obvious and the engineering difficulties so inconsiderable, that the time cannot be far distant when the South Floridian will fear the floods that afflict him to-day no more than the Dutchman dreads the Zuyder Zee." Yet another author detailed the hardships suffered by the federal government's engineers as they collected data while crossing the Glades during the winter of 1907-8. He maintained that draining the Everglades



Turn-of-the-century non-fiction writers usually expressed a combination of attitudes toward the Glades, including an appreciation for the region's beauty and mystery. HASF 81-31-3.

would be a simple matter. "There is no difference of opinion on the part of the engineers who have investigated the conditions," he incorrectly contended, adding that "their recommendations are unanimously in favor of pushing the work."⁵⁰

In the meantime, Broward's inadequate dredges slowly cut through the rock comprising the Atlantic Coastal Ridge near Fort Lauderdale into the Glades. In 1907, after nine months of dredging, the engineer in charge reported one canal a little over a mile long. Yet when a committee of state legislators visited South Florida that year, they "could clearly see that the effect of the canal has been to drain the land for, say, one-half mile or more on either side of the canal and for a considerable distance in front of it." They estimated that 750 acres had been reclaimed. What the committee did not see—what they could not see—was that water levels more than a half mile from the canal were probably little changed. Similarly, land promoters later hauled countless investors up and down South Florida's canals in an effort to convince prospective buyers that the Glades were being drained.⁵¹

At the end of 1908, as Governor Broward's term drew to a close, two dredges had cut canals a little over six miles each from both North and South forks of Fort Lauderdale's New River into the Glades. Lack of dredging progress may be attributed to two causes. First, since large landowners refused to pay Everglades Drainage District taxes, and since few farmers were willing to purchase swamp land from the state—the trustees of Florida's Internal Improvement Fund had little cash with which to pursue drainage operations. Second, dredging was necessarily slow because most of the digging thus far had been through limestone rock underlying the Atlantic Coastal Ridge rather than the relatively soft muck of the Glades proper. As 1908 drew to a close, Broward made one last attempt to extend the work—he persuaded Richard J. Bolles to buy five hundred thousand acres of Everglades land for \$1 million. Like Florida's earlier deal with Hamilton Disston, the Bolles sale not only provided much needed revenue for the project, but also paved the way for radical efforts to change people's perception of the Everglades. Bolles and other real estate people simply accepted Broward's pledge that the state would, in fact, drain the Everglades, and they relied heavily upon this pledge as they launched their campaign to sell the cheaply acquired swampland for profit starting in 1909.⁵²

In conclusion, there appears to be no evidence that would justify abandoning the generalization that most people in the late nineteenth and early twentieth centuries took a rather dim view of wetlands. These environments were viewed as pestilential waste lands in need of redemption. In terms of draining the Everglades, however, such a generalization requires much qualification. On one hand, there were many people who insisted that action be taken to convert the Glades from an apparently useless marsh into fertile agricultural land. This was particularly apparent during the late 1800s. Yet very few people lived in South Florida until after 1900 and even fewer had any idea what the Everglades were like. Despite this, patchy evidence from the late nineteenth century suggests that there is a connection between people's abhorrence of wetlands generally and their support (or tolerance) of Everglades reclamation. By the early 1900s, however, several people raised voices of caution regarding such a project, and for a variety of reasons. Some, like Miami's Frank Stoneman, called for more thorough investigation of the task before spending money on Everglades drainage. In a 1908 editorial, Stoneman explained that "the *News-Record* is not opposed to the drainage of the Everglades if draining them will extend the area of arable land...but it does believe that the great problem should be carefully investigated by experts and scientists before much money is spent or possible irreparable damage incurred." This was indeed a prophetic statement because much of the subsequent flooding and human suffering in the Everglades during the 1910s and 1920s stemmed from relatively superficial investigations of the region's hydrology—and heavy reliance upon early plans to reclaim the Glades.⁵³ Others feared that draining the Glades may be problematic because such activity would stimulate excessive agricultural production (which would hurt existing farmers on the coastal ridge); others expressed concern over possible adverse changes in local climate that might occur in the wake of such a project; and still others believed that the enormity of such an endeavor would make the cost prohibitive.

Aesthetics and ecological values would not become important issues until the 1950s and 1960s. The late nineteenth and early twentieth century discussion regarding Everglades reclamation appears to have been set squarely within the context of the Progressive Era quest for efficiency. Even those who spoke out against draining the Everglades did so for utilitarian reasons; some questioned the project's cost

effectiveness while others were concerned about the creation of too much farm produce, and still others feared drainage might cause adverse local climate change. Although many early twentieth century people remained unimpressed with the Everglades and other wetlands, these voices of protest against reclamation were ignored. Today, scientists are prepared to spend in excess of \$8 billion in an attempt to restore portions of the Everglades to something resembling their condition prior to reclamation.

Notes

- ¹ See Thomas E. Lodge, *The Everglades Handbook* (Delray Beach, FL: St. Lucie Press, 1994) and Steven M. Davis & John C. Ogden (eds.), *Everglades: The Ecosystem and its Restoration* (Delray Beach, FL: St. Lucie Press, 1994); Marjory Stoneman Douglas, *Everglades: River of Grass* (New York: Reinhart, 1947); J.E. Dovell, *A History of the Everglades of Florida* (Ph.D. Dissertation, University of North Carolina, Chapel Hill, NC, 1947); Luther J. Carter, *The Florida Experience* (Baltimore: Johns Hopkins University Press, 1974); Nelson M. Blake, *Land into Water—Water into Land* (Tallahassee, FL: University Presses of Florida, 1980); Charlton Tebeau, “Exploration and early descriptions of the Everglades, Lake Okeechobee, and the Kissimmee River,” in P.J. Gleason (ed.), *Environments of South Florida: Past and Present* (Coral Gables, FL: Miami Geological Society, 1974); Charlton Tebeau, *A History of Florida* (Coral Gables, FL: University of Miami Press, 1980); Miami Herald, 14 February 1911: 2; Charlton Tebeau, *Man in the Everglades; 2,000 years of human history in the Everglades National Park* (Coral Gables, FL: University of Miami Press, 1968); David McCally, *The Everglades: An Environmental History* (Gainesville, FL: University Presses of Florida, 1999); William J. Mitsch and James G. Gosselink, *Wetlands* (New York: Van Nostrand Reinhold, 1993): 3.
- ² Kenneth Thompson, “Insalubrious California: perception and reality,” *Annals of the Association of American Geographers* 59 (1969): 50-64; Roger A. Winsor, “Environmental imagery of the wet prairie of east central Illinois, 1820-1920,” *Journal of Historical Geography*. 13 (1987): 375-397.
- ³ Thomas E. Dahl, *Wetland Losses in the United States: 1780s to 1980s* (Washington, D.C.: U.S. Department of the Interior, Fish and Wildlife Service, 1990); Buckingham Smith’s report can be found in U.S. Senate, 62nd Congress, 1st Session, *Document 89: Everglades of Florida, Acts, Reports, and Other Papers, State and National, Relating to the Everglades of the State of Florida and Their Reclamation*, 1911).
- ⁴ Ann Vileisis, *Discovering the Unknown Landscape: A History of America’s Wetlands* (Washington, D.C.: Island Press, 1997); Nelson Blake, *Land Into Water—Water Into Land*, 1980; J.E. Dovell, *History of the Everglades*, 1947.
- ⁵ The quotation in this paragraph as well as the idea for this paragraph can

- be found in Morgan D. Peoples and Edwin A. Davis (eds.), "Across south central Florida in 1882: the account of the first New Orleans *Times-Democrat* exploring expedition," reprinted in *Tequesta* 10 (1950): 49.
- ⁶ Morgan Peoples and Edwin Davis, "Across south central Florida in 1882: the account of the first New Orleans *Times-Democrat* exploring expedition," *Tequesta* 10 (1950): 40-50, 80; Will Wallace Harney, "The Drainage of the Everglades," *Harper's New Monthly Magazine* March (1884): 603.
- ⁷ Mary K. Winteringham (ed.), "North to South Through the Glades in 1883: the account of the second expedition into the Florida Everglades by the New Orleans *Times-Democrat*, part II" reprinted in *Tequesta* 24 (1964): 93, 35.
- ⁸ John Whipple Potter Jenks, *Hunting in Florida in 1874* (Privately Published 1884): 57.
- ⁹ Frederick A. Ober, *The Knockabout Club in the Everglades: the Adventures of the Club in Exploring Lake Okechobee* [sic] (Boston: Dana Estes & Co., 1887): 148-149.
- ¹⁰ Frederick Jackson Turner, *Annual Report of the American Historical Association for 1893* (Washington, D.C.: American Historical Association, 1894): 199-227; U.S. Department of the Interior, Census Office, *Report on the Population of the United States at the Eleventh Census: 1890, Part 1* (Washington, D.C.: Government Printing Office, 1895): xxix.
- ¹¹ James W. Davidson, *The Florida of Today: a Guide for Tourists and Settlers* (New York: D. Appleton and Co., 1889): 227, 71.
- ¹² Charles L. Norton, *A Handbook of Florida* (New York: Longmans, Green and Company, 1890): 19; Charles L. Norton, *A Handbook of Florida*, 3rd edition (New York: Longmans, Green and Company, 1895): 270.
- ¹³ Watt P. Marchman edited the journal of Wallace R. Moses, "The Ingraham Everglades exploring expedition, 1892," *Tequesta* 7 (1947): 3-43; Alonzo Church, "A dash through the Everglades," *Tequesta* 9 (1949): 13-41.
- ¹⁴ Alonzo Church, "A dash through the Everglades," 19, 16.
- ¹⁵ John Newman as quoted in Alonzo Church, "A dash through the Everglades," 20-21; Wallace Moses, "The Ingraham Everglades exploring expedition," 14, 19; Alonzo Church, "A dash through the

- Everglades,” 35; Wallace Moses, “The Ingraham Everglades exploring expedition,” 41 (footnote #4); Wallace Moses as quoted in John T. Stewart, *Report on Everglades Drainage Project in Lee and Dade Counties, Florida, January to May 1907* (Washington, D.C.: United States Department of Agriculture, Office of Experiment Stations, Irrigation and Drainage Investigations, 1907): 43.
- ¹⁶ *Official Report of the Board of Trustees of the Internal Improvement Fund to the Legislature of Florida Relative to the Drainage Operations of the Atlantic and Gulf Coast Canal and Okeechobee Land Company* (Tallahassee, FL: Tallahassee Book and Job Office, 24 May 1893); Kathryn A. and Alfred J. Hanna, *Lake Okeechobee: Wellspring of the Everglades* (Indianapolis: Bobbs-Merrill, 1948).
- ¹⁷ *Miami Metropolis*, 5 June 1896, 6.
- ¹⁸ *Miami Metropolis*, 21 October 1896, 2.
- ¹⁹ Hugh L. Willoughby, *Across the Everglades* (1992 edition, Port Salerno, FL: Florida Classics Library; originally published in 1898): 115, 14, 62; *Miami Metropolis*, 12 June 1896, 5.
- ²⁰ Hugh Willoughby, *Across the Everglades*, 119-120; Abe Kreitman and Leslie A. Wedderburn, “Hydrogeology of South Florida” in P.J. Gleason (ed.) *Environments of South Florida: Present and Past, Memoir II* (Coral Gables, FL: Miami Geological Society, 1984): 405-423; Clifton Johnson, *Highways and Byways of Florida* (New York: Macmillan, 1918): 162; Nevin O. Winter, *Florida: The Land of Enchantment* (Boston: Page, 1918): 299.
- ²¹ *Jacksonville Times-Union*, 5 October 1898, 4.
- ²² I. L. Roberts as quoted in the *Miami Metropolis*, 14 April 1899, 5.
- ²³ *Miami Metropolis*, 30 October 1896, 3.
- ²⁴ U.S. House of Representatives, 57th Congress, 1st Session, Document 176: Examination and Survey of the Kissimmee River, Florida, etc. (Washington, D.C.: Government Printing Office, 1902): 9.
- ²⁵ U.S. House of Representatives, *Document 176: Kissimmee River Survey*, 14.
- ²⁶ Samuel P. Hays, *Conservation and the Gospel of Efficiency* (Cambridge, MA: Harvard University Press, 1959); Charles MacDonald, “Annual Address,” *Proceedings, American Society of Civil Engineers* 34 (1908): 256-300; *Jacksonville Times-Union*, 25 October 1899, 4; F. A. Hendry as quoted in the *Fort Myers Press* 12 October 1906, 7.
- ²⁷ Samuel Hays, *Conservation and the Gospel of Efficiency*, 1959: 127;

- Ann Vileisis, *Discovering the Unknown Landscape*, 1997; William D. Rowley, *Reclaiming the Arid West: the Career of Francis G. Newlands* (Bloomington, IN: Indiana University Press, 1996); *Pensacola Journal*, 1 April 1906, 10.
- ²⁸ Sydney W. Martin, *Florida's Flagler* (Athens, GA: University of Georgia Press, 1949); *Miami Metropolis*, 26 June 1896, 1.
- ²⁹ Kathryn A. and Alfred J. Hanna, *Lake Okeechobee: Wellspring of the Everglades* (Indianapolis: Bobbs-Merrill, 1948): 341; Lawrence E. Will, *Okeechobee Catfishing* (St. Petersburg, FL: Great Outdoors Publishing Company, 1965); Stuart McIver, *True Tales of the Everglades* (Miami: Florida Flair Books, 1989).
- ³⁰ A. W. and Julian Dimock, *Florida Enchantments* (London: Hodder and Stoughton, 1908): 300.
- ³¹ Elliott's report can be found in: U.S. Senate, 62nd Congress, 1st Session, *Document 89: Everglades of Florida, Acts, Reports, and Other Papers, State and National, Relating to the Everglades of Florida and their Reclamation* (Washington, D.C.: Government Printing Office, 1911): 94-97.
- ³² James T. Brooks, "Napoleon Broward and the great land debate," *Broward Legacy* 11 (1988): 42; H.F. Urie as quoted in the *Fort Myers Press*, 2 November 1906, 3.
- ³³ Joe Knetsch, "Governor Broward and the details of dredging: 1908," *Broward Legacy* 14 (1991): 38-44; Napoleon Broward to C. Horace McCall as quoted in Samuel Proctor, *Napoleon Bonaparte Broward: Florida's Fighting Democrat* (Gainesville, FL: University of Florida Press, 1950): 260.
- ³⁴ Napoleon B. Broward, *Open Letter of Governor Napoleon B. Broward to the People of Florida* (Tallahassee, FL: Capital Publishing Company, 1906): 1; Napoleon Broward as quoted in the *Pensacola Journal*, 6 November 1906, 2; Napoleon Broward as quoted in the *Jacksonville Times-Union*, 1 November 1906, 2.
- ³⁵ *Ocala Banner*, 27 April 1906, 1; C. Mailing as quoted in the *Jacksonville Times-Union*, 1 November 1906, 2.
- ³⁶ *Jacksonville Times-Union*, 3 March 1906, 6.
- ³⁷ *Jacksonville Times-Union*, 17 August 1906, 4.
- ³⁸ See Christopher F. Meindl, "Frank Stoneman and the Florida Everglades During the Early 20th Century" *Florida Geographer* 29 (1998); *Miami Evening-Record*, 3 April 1906, 4; *Miami Evening-*

Record, 20 April 1906, 4; Alfred Newlander to Frank Stoneman as quoted in the *Miami Evening-Record*, 27 October 1906, 2-3; *Miami Morning News-Record*, 5 February 1908, 2.

³⁹ *Miami Metropolis*, 20 April 1906, 7; 23 March 1906, 8.

⁴⁰ *Miami Metropolis*, 7 September 1906, 3.

⁴¹ *Ibid.*

⁴² *Ibid.*

⁴³ Jacksonville *Times-Union*, 11 November 1906, 1; *Fort Myers Press*, 19 October 1906, 2; 1 November 1906, 4; 28 September 1906, 2.

⁴⁴ See Christopher F. Meindl, "On the Importance of Environmental Claims Making: The Role of James O. Wright in Promoting the Drainage of Florida's Everglades in the Early 20th Century," *Annals of the Association of American Geographers* (in press).

⁴⁵ John T. Stewart, *Report on Everglades Drainage Project in Lee and Dade Counties, Florida, January to May 1907* (Washington, D.C.: U. S. Department of Agriculture, Office of Experiment Stations, Irrigation and Drainage Investigations, 1907): 88.

⁴⁶ George Butler as quoted in John T. Stewart, *Report on Everglades Drainage*, 54.

⁴⁷ J. E. Brecht as quoted in John T. Stewart, *Report on Everglades Drainage*, 41; J.F. Shands as quoted in John T. Stewart, *Report on Everglades Drainage*, 36; W.A. Roberts as quoted in John T. Stewart, *Report on Everglades Drainage*, 39.

⁴⁸ *Miami Metropolis*, 28 February 1908, 1; Indeed, the USDA never did publish Wright's report; but Florida Senator Duncan U. Fletcher did manage to get Wright's report printed as part of a compilation of documents on the Everglades in 1911. See U.S. Senate, 62nd Congress, 1st Session, *Document 89: Everglades of Florida, Acts, Reports, and Other Papers, State and National, Relating to the Everglades of the State of Florida and their Reclamation* (Washington, D.C.: Government Printing Office, 1911): 140-180; Christopher F. Meindl, "Importance of Environmental Claims Making", in press; Christopher F. Meindl, "Past Perceptions of the Great American Wetland: Florida's Everglades During the Early 20th Century," *Environmental History* 5 (2000): 378-395.

⁴⁹ Edwin A. Dix and John N. MacGonigle, "The Everglades of Florida," *Century Magazine* (February, 1905): 526; A. W. Dimock, "Crossing the Everglades in a power boat," *Harpers* (January, 1907): 220.

- ⁵⁰ A.W. and Julian Dimock, *Florida Enchantments* (London: Hodder and Stoughton, 1908), 264; William A Dupuy, "An air-line across the Everglades," *World's Work* 15 (1908): 9897.
- ⁵¹ U.S. Senate, *Document 89: Everglades of Florida*, 110-111.
- ⁵² Joe Knetsch, "Governor Broward and the details of dredging: 1908," *Broward Legacy* 14 (1991): 38-44. Christopher Meindl, "Past Perceptions of the Great American Wetland," 2000.
- ⁵³ *Miami News-Record*, 5 February 1908, 2; Christopher F. Meindl, "Importance of Environmental Claims Making", in press.