

III. EVERGLADES ENVIRONMENTAL SETTING

This chapter provides background for visualizing the Everglades ecosystem by presenting brief environmental and cultural overviews of select landscapes and natural areas within southern Florida. To understand Gladesmen utilization of the region as a whole, it is useful to examine some of the different geographic areas that combine to form the unique environment that this culture utilizes in maintaining itself. This will be especially helpful to readers who have never been to the Everglades and its larger wetland ecosystem. These overviews are not intended to be an exhaustive environmental treatment of all of southern Florida, but they serve to highlight several well-known and important subregions visited by New South Associates during the fieldwork component of the ethnographic study.

The Everglades ecosystem, as it pertains to this study, encompasses the lands from Lake Kissimmee in Central Florida, south to Everglades National Park and the Florida Keys; northwest to the Big Cypress Preserve and Fakahatchee Strand; and east to the state water management areas in Broward, Dade and Palm Beach counties. The Everglades are considered to be a world treasure, the most famous wetland in the world. There is no other ecosystem like it on earth. Originally a contiguous marshland of around 4,000 square miles, the Everglades filtered water flowing south out of Lake Okeechobee to the tip of south Florida (Florida Game and Freshwater Fish n.d.:2; Grunwald 2006:3; Lodge 1994:10).

While Everglades National Park is the most well known component of the Everglades, the larger geographic region comprises much more than this one portion of southern Florida. What many refer to as “Florida’s swamps,” actually includes sawgrass prairies, cypress wetlands, lakes, hardwood hammocks, inland marshes, and deep freshwater sloughs. It is also known as the Kissimmee-Okeechobee-Everglades, or the southern Florida ecosystem (Grunwald 2006:12; Ogden 2005:1).

The natural Everglades, before its alteration by humans, was a seemingly unending sheet of shallow water spreading across a prairie, occasionally interrupted by small islands of trees. Specifically, prior to drainage projects, the Everglades:

...seeped all the way down Florida’s southern thumb, from the giant wellspring of Lake Okeechobee...to the ragged mangrove fringes of Florida Bay and the Gulf of Mexico, a sodden savanna more than 100 miles long and as much as 60 miles wide—just grass and water...except for the tree islands...and the lily pads and algal mats that floated on the water (Grunwald 2006: 9,11).

One of the defining aspects of this ecosystem is that it is almost totally flat, a characteristic that allows for the sheet flow of water throughout its system. Throughout its existence, the Everglades region has been an uncompromisingly rough and unforgiving environment. Shadeless areas alternate with swamps that are dark as night. Dense thickets of sawgrass cut the skin like razor

blades while the thick muck underfoot can suck the boot off one's foot. The environment is both loud and quiet: bellowing alligators compete with screaming frogs and screeching owls; while at times the silence can be eerie and frightening.

This one of a kind ecosystem is much more than lacerating sawgrass and swarming bugs. The Big Cypress Swamp, in southwest Florida, is "...a mosaic of pinelands, prairies, and blackwater bogs..." (Grunwald 2006:12). In addition to its diverse flora, the ecosystem supports an incredible array of wildlife: alligators and crocodiles, bear, deer, panthers, rare butterflies, manatee, scores of species of bird and fish and aquatic organisms. Before the impact of humans on the ecosystem, it was home to 350 bird species, and 1,100 species of trees and plants (Grunwald 2006:12).

The term "Everglades" has only been in use for over one hundred years. According to Lodge (2004:9):

The word Everglades has an obscure and apparently accidental origin, with the first part, *ever*, originally indicating river. The second part, *glade*, is probably the English word meaning an opening in a forest where grasses cover the ground.

The word "glade" originated from the Anglo-Saxon "glaed" with the "ae" shortened to "Glad." This word meant "shining" and which could refer to bright water. Another early English version of the word comes from a map by Gerard de Brahm, who called the vast expanse "River Glades." The Turner map of 1823 was the first to use the term "Everglades" while the 1823 Ives map called it "ever glades." Native Americans, the first to access the region and avail themselves of its bountiful resources, used the word "Pa-hay-okee," meaning "Grassy Water," to describe the area (Douglas 1988:7-8). The "okee" in "Pa-hay-okee" suggests this word has a Creek origin used by the Seminoles, and is probably not the term used by their predecessors in the region (Grady Caulk, personal communication 2009).

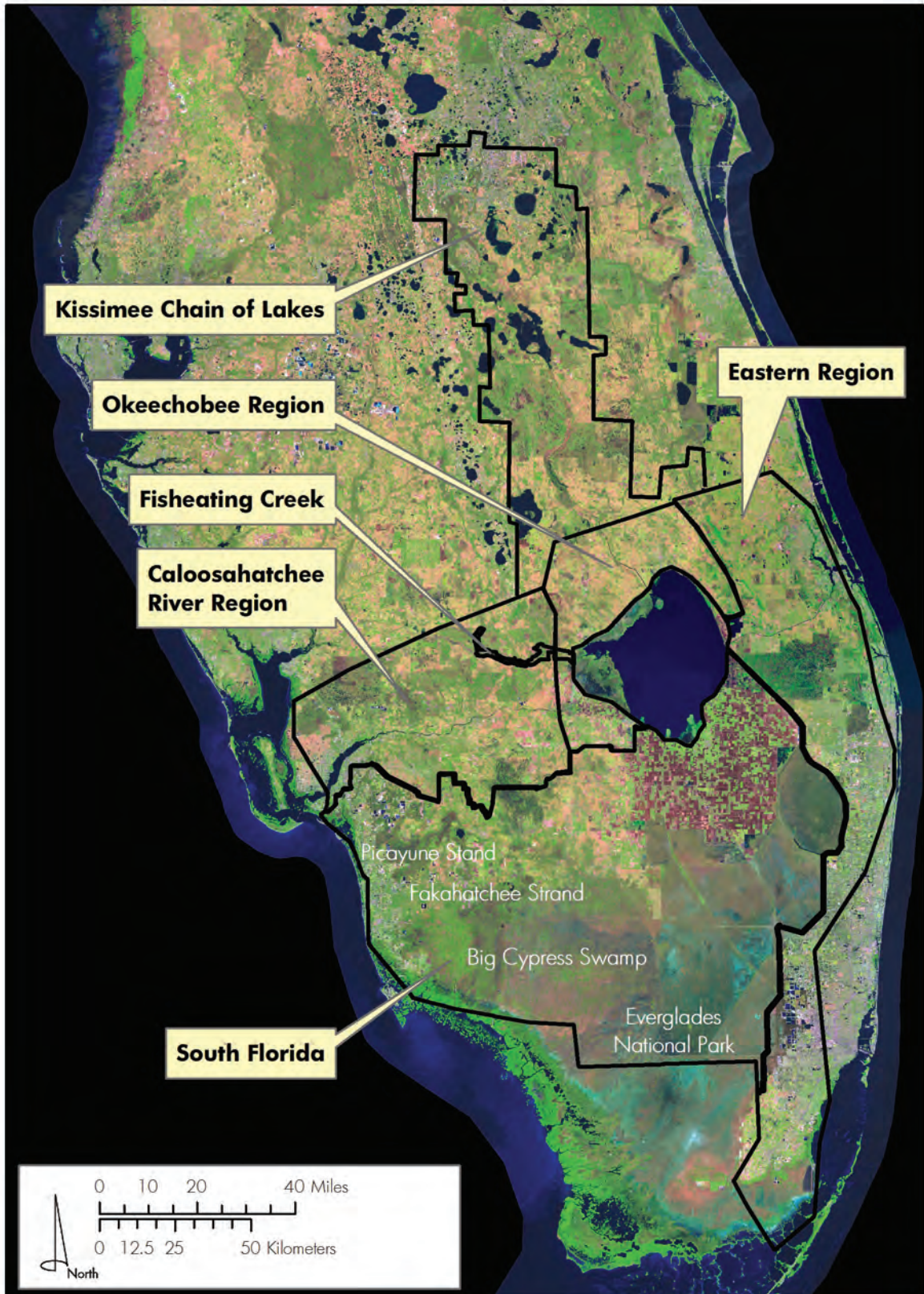
EVERGLADES SUBREGIONS

For the purpose of discussion, the Everglades ecosystem, as it relates to lands associated with CERP, has been divided here into six subregions (Figure 5): Kissimmee Chain of Lakes, Lake Okeechobee, Fisheating Creek, Caloosahatchee River Region, South Florida, and the Eastern Region. These are arbitrary divisions that represent geographical referents that came out in discussions with Gladesmen during interviews and serve to highlight the areas visited by the ethnographer within the vast area under study. This chapter provides a brief characterization of each general area, noting significant physiographic and hydric features, major historic alterations to the landscape, and efforts at restoration to date.

KISSIMMEE CHAIN OF LAKES

The headwaters of the Everglades system consist of a chain of lakes that travel through portions of Highlands, Orange, and Osceola counties and feed into the Kissimmee River. These waters were originally a serpentine waterway that fed the marshes in its narrow floodplain, before finally emptying into Lake Okeechobee. Physiographic features include the Carlton Ranch Ridge, with the Kissimmee Valley to the east and the De Soto Slope to the west. The Kissimmee Chain of Lakes (KCOL) watershed covers about 1,633 square miles, and includes 26 lakes greater than one square mile in area.

Figure 5.
Subregions Visited by the Ethnographer



Historically, the waters of this region were connected by broad waterways and sloughs that flowed during the wet season. The upper Kissimmee Chain originates in Orange County and includes several small lakes including Hart, Alligator, and Brick. The lower chain comprises several large lakes such as Tohopekaliga, Cypress, Hatchineha and the largest, Kissimmee. Lake Kissimmee (Figure 6), which originally flowed directly into the Kissimmee River, discharges into the river through the S-65 water control structure (SFWMD et al. 2008:2-3 – 2-5).

In 1902, dredging operations began from the town of Kissimmee downstream to the town of Basinger. Between 1964 and 1970, flood control works were constructed in the basin as part of the Central and South Florida (C&SF) Project and consisted of the building of nine water control structures to regulate lake levels and outflows; in addition, interlake canals were enlarged and new ones dredged (SFWMD et al. 2008:2-8). The Kissimmee River, once a winding waterway, was now straight and configured as canals.

As part of CERP, construction has begun on the Kissimmee River Restoration Project to backfill the canalized Kissimmee River and to help restore sections of the river to its original channel. The original flow of the river was 103 miles, from south of Orlando to Lake Okeechobee. When the restoration is completed, over 40 square miles of the river-floodplain ecosystem will be restored (Corps 2006).

LAKE OKEECHOBEE REGION

Lake Okeechobee (Figure 7) is the second largest freshwater lake in the continental United States. The lake covers portions of Glades, Martin, Palm Beach, Hendry, and Okeechobee counties and is 730 square miles in area with a drainage basin that covers over 4,600 square miles (SWFWMD n.d.a). Physiographic features around the lake are many, and include the Istokpoga and Okeechobee prairies to the north, Green Ridge-Loxahatchee Karst and Andytown Ridges and Sloughs to the east, Saw Grass Plain to the south, and Okeechobee Prairie to the west. A flat prairie surrounding a large percentage of the lake dominates the region. There are several inflows to the lake, including Taylor Creek and the Kissimmee River, and several small outlets, such as the Miami River, the New River on the east, and the Shark River on the southwest (Smith 2008:71).

The earliest maps have referred to Lake Okeechobee as “Spirito Santo” and shipwreck survivors in 1561 called it Lake “Sarope” (Grady Caulk, personal communication 2009). Early 1800s maps label the lake as “Macaco,” or “Majaco,” or “Major.” It was not until the 1840s-1860s that the lake became shown on maps as “Kee-Cho-Bee,” or Okeechobee, a name the Seminole used for Big Water.

An 1848 survey report on the lake concluded that the region could profitably produce a wide variety of crops by lowering lake levels. In 1881, Hamilton Disston purchased 4 million acres of land in South Florida, including the lake. In order to convert these acres into agricultural lands, he proceeded to dredge a canal between the lake and the Calooshatchee River and dredge the Kissimmee River. Truck farming became the important economic endeavor on these lands. After the creation of the Everglades Drainage District in the early 1900s, a 47-mile long levee was constructed around the southern rim of the lake, thus allowing the water level to be further lowered (LakeOkeechobee.org n.d.; Will 1977:2-3). These intensive agricultural activities resulted in increases of nutrient inputs to the lake, causing detrimental changes to its water quality.

Figure 6.
Lake Kissimmee



Source:
USDA Farm Service Agency

Figure 7.
Lake Okeechobee



USGS Color Orthographic Map

Following these actions, much of the area around Lake Okeechobee became agricultural land. In addition to the cultivation of sugar cane, cattle and dairy farms sprung up south of the lake and sugar cane and vegetable farming increased to the south. With these operations came the development of several communities in the vicinity of the lake, some right along the lake's edge. Disaster struck these communities in 1926 and again in 1928 when two major hurricanes hit southern Florida; one generated a storm surge at the lake that flooded acreage to the south and killed over 2,000 people. In response to this disaster, the Corps constructed the Herbert Hoover Dike to surround the lake (Grunwald 2006:192-194, 199). Today all discharges, except for Fisheating Creek, are artificially controlled.

Fisheating Creek

Fisheating Creek (Figure 8) is a pristine waterway at the edge of Lake Okeechobee that is the only non-dammed tributary to the lake. It is an approximately 60-mile long tributary that flows from Highlands County through Glades County, draining into Lake Okeechobee at Fisheating Bay. Originating in western Highlands County, the creek flows south from the community of Venus, then east, draining into the western side of the lake below Brighton Indian Reservation. Fisheating Creek's diverse environment, ranging from pine and oak to thick cypress swamp, has long been a haven for area Gladesmen as well as a recreation area for campers and picnickers (Will 1977:27). Former Assistant Attorney General David Guest said, "There's no doubt that Fisheating Creek is the center of the collective psyche of the people in the county as far back as anybody can remember" (Crook and Henry 1990). Much of the river corridor is owned by the Lykes Brothers. Additional lands have been leased to the Florida Fish and Wildlife Conservation Commission (FWC), and the Board of Trustees has purchased development rights for other property from the Lykes Brothers. Management and monitoring of the conservation easement on these lands is the responsibility of the FWC. Fisheating Creek Wildlife Management Area (WMA) is a 40-mile stretch of the creek where picnicking, fishing, boating, hiking, hunting by permit, and wildlife viewing are popular activities.

CALOOSAHATCHEE RIVER REGION

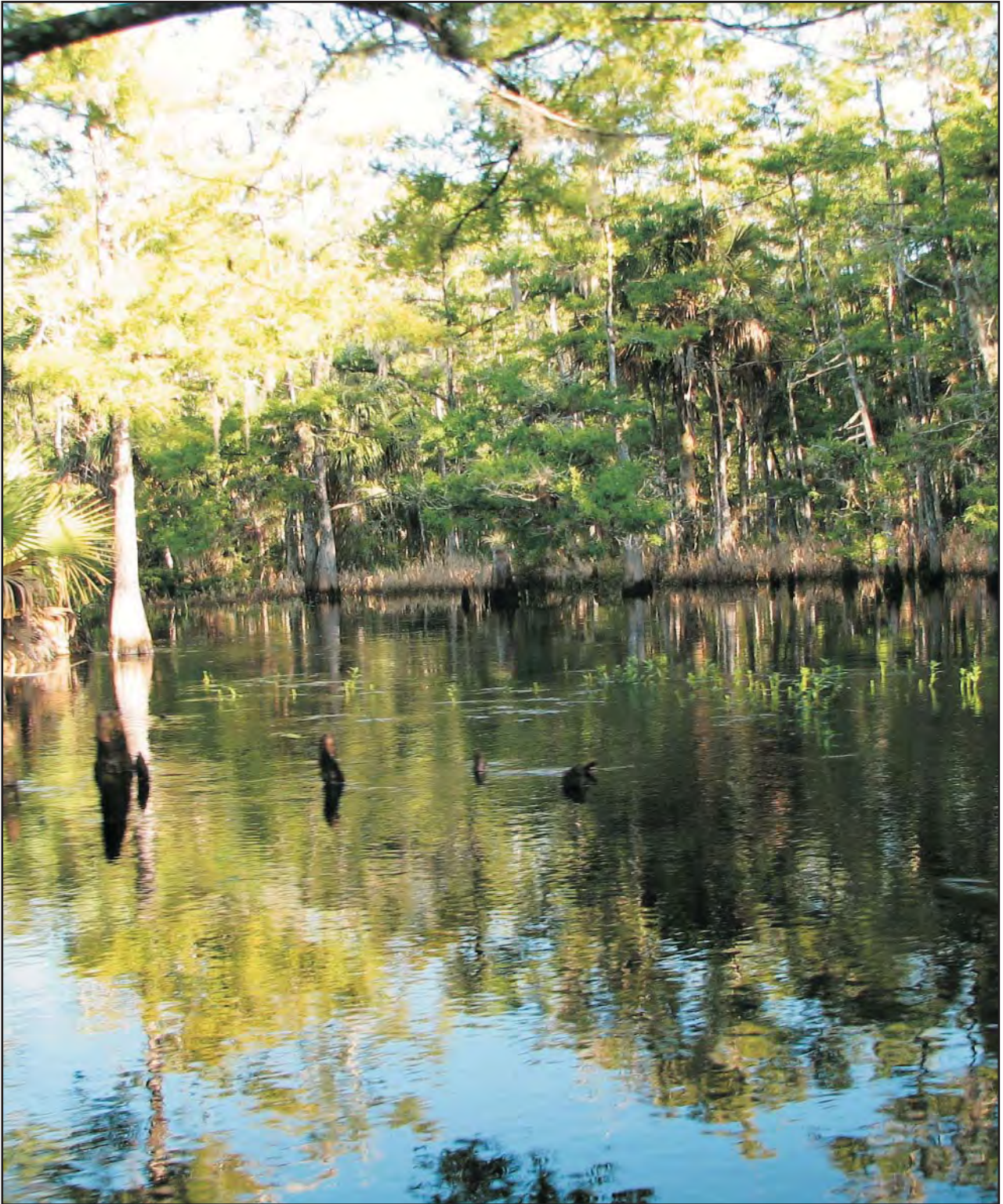
The Caloosahatchee sub region lies immediately west of the Okeechobee Basin, at the northern limit of subtropical southern Florida and covers portions of Charlotte, Lee, Highlands, Glades, and Hendry counties. Physiographic areas include the Barrier Island

Coastal Strip to the west, the De Soto Slope to the north, the Caloosahatchee Valley (through which the river flows), and the Immokalee Rise to the south. Three major rivers, the Myakka, Peace, and Caloosahatchee, drain interior lands to the north and east, emptying into Charlotte Harbor and San Carlos Bay to the west. For early Gladesmen, the Caloosahatchee, along with the Kissimmee River, was a primary access route into the backcountry. The sub region includes a vast savannah, much of which has been adapted for agriculture.

SOUTH FLORIDA

The immense landscape between Miami and Naples is more than just the swamps of South Florida. For purposes of this study, the region can be seen as comprising several major natural resource areas: Big Cypress Swamp, Fakahatchee Strand, Picayune Strand, Everglades and Francis S. Taylor Wildlife Management Area, and Everglades National Park. Each of these provides significant access to interior regions in the pursuit of traditional Gladesmen activities.

Figure 8.
Fisheating Creek



Big Cypress Swamp

The Big Cypress Swamp (Figure 9) covers portions of Hendry and Collier counties and consists of sandy islands of slash pine, mixed hardwood hammocks (tree islands), wet prairies, dry prairies, marshes, and estuarine mangrove forests. Big Cypress Indian Reservation lies to the north in the southeastern corner of Hendry County, and the Miccosukee Indian Reservation lies to the east. About one-third of the Big Cypress is covered with cypress trees. Broad belts of cypress edge wet prairies; cypress strands line the sloughs; and occasional cypress domes dot the horizon. Seasonal rainfall provides a steady mix of freshwater and saltwater in the estuaries along the boundary of Everglades National Park, and this nutrient rich mix supports marine animals such as pink shrimp, snook, and snapper. In the dry season, water evaporates or flows into downstream estuaries and the swamp's aquatic life concentrates in the remaining deeper pools and sloughs (Smith 2008:89).

According to Lodge (1994:67), the Big Cypress Swamp has been defined at 1200 square miles in area and approximately 2500 square miles using its hydrological boundary, including areas near Naples. The elevation here is slightly higher than the Everglades, resulting in a wider range of environmental communities including deep sloughs, open ponds, and cypress swamps. Much of its water is supplied by rainfall, with over 60 inches per year on the average (Butcher n.d.).

The freshwaters of the Big Cypress Swamp are essential to the health of the adjacent Everglades and its associated flora and fauna. In order to protect this important Everglades's water supply, the U.S. Government created the Big Cypress National Preserve in 1974. The preserve is located between Miami and Naples in portions of Collier, Monroe, and Miami-Dade counties. It is accessed by Interstate 75 along Alligator Alley and the Tamiami Trail (U.S. Highway 41). The area of the preserve, as of 2006, is 725,561 acres (Melissa Memory, personal communication 2008).

Fakahatchee Strand

West of the Big Cypress National Preserve is the Fakahatchee Strand Preserve State Park. Located in Collier County, the strand is a linear swamp forest, about 20 miles long and five miles wide. It is one of the main sloughs into the Big Cypress Swamp and is home to a number of diverse habitats and forests. It is the only ecosystem in the world that has both bald cypress and royal palms in the same forest canopy, and is known as "big cypress country," with huge cypress stretching upwards of 130 feet. The Fakahatchee Strand is truly a unique ecosystem.

The road that takes the visitor into the park is called Janes Memorial Scenic Drive, an 11-mile road that is part of an old Cypress logging trail. According to Mr. Frank Denninger, the road was originally a logging tram built in the late 1930s or early 1940s for locomotives carrying cypress logs. It was the main logging railroad tram leading from Copeland into the Fakahatchee Strand and was referred to by locals as the Copeland Grade prior to it being named Janes Scenic Drive. Additional spurs were cut off from the main tram, allowing logging operations to reach deep into the cypress swamp.

Figure 9.
Big Cypress National Preserve



A. Big Cypress Swamp



B. Frank Denninger Launching His Canoe



C. Early Morning in the Swamp

Picayune Strand State Forest

Picayune Strand State Forest lies west of Fakahatchee Strand. Natural areas in the vicinity include Corkscrew Swamp Sanctuary and Stumpy Strand. Physiographic areas include portions of the Barrier Island Coastal Strip, Immokalee Rise, and Corkscrew Swamp. Picayune Strand State Forest is a hydric forest that is under water during periods of considerable rainfall. The forest comprises cypress strands, wet prairie, and pine flatwoods in the lowlands and subtropical hardwood hammocks in the uplands. Much of this area had canals cut through it to permit the construction of roads during the 1960s for a residential community that never materialized; some of these roads are being removed by the South Florida Water Management District to restore the natural sheet flow of water. Adjacent areas to the north and west have seen a good deal of agricultural development.

Everglades and Francis S. Taylor Wildlife Management Area -- Water Conservation Areas 2 and 3, Dade and Broward Counties

A water conservation area (WCA) is a multi-purpose location designated by the SWFWMD to:

- (1) act as a depository for excess water from the agricultural areas;
- (2) provide the levees necessary to prevent Everglade floodwaters from inundating the east coast;
- (3) aid in recharging underground freshwater reservoirs;
- (4) provide a water supply for east coast agricultural lands;
- (5) benefit fish and wildlife in the Everglades; and
- (6) release excess water to Everglades National Park and from storage to assist in restoring and maintaining natural conditions (Neidrauer n.d.:3).

This large area covers portions of Dade and Broward counties, north of Everglades National Park, and is characterized largely by Everglade sawgrass marsh intermixed with tree islands and hammocks. Numerous canals run in and through the area including the Tamiami and Miami, making it accessible by both boat and levee bank. The land is divided between State, SFWMD, Miccosukee Tribal Land, and private landholders, with SFWMD lands designated by State and Federal governments as Federal Trust Land for the use and benefit of the Miccosukee Tribe. The Florida Fish and Wildlife Commission manages hunting within non-Tribal lands and conducts yearly hunts for small game, waterfowl, and deer. The interior marshes are most easily accessible by airboat though low water levels may hamper access during the dry season (Florida Wildlife Commission 2008a; SFWMD n.d.b). WCA 3, according to SFWMD, contains at least 75 private hunting camps, many of which are under 20-year leases. These camps are reached by airboat and tracked vehicles, with some of the camps built on stilts over open water while others are situated on hammocks (SFWMD n.d.b). In addition to Mack's Fish Camp, included in the present study, Everglades Holiday Park (previously known as King's Fish Camp) and the Sawgrass Fish Camp have long been important regional access points (Poole 2009:3).

Everglades National Park

Everglades National Park was authorized through an Act of Congress in 1934, though the park was not dedicated until December 1947. Located in portions of Dade, Collier, and Monroe counties, the original acreage of the park was 460,000 acres; boundary changes in subsequent years have greatly added to that number. As of 2006, the gross acreage of the park and the Eastern Expansion Area is 1,508,540 acres (Melissa Memory, personal communication 2008).

Everglades National Park is but one component of the larger Everglades ecosystem. The Everglades is the most extensive swamp in the United States and covers most of the South Florida peninsula, from the southern shore of Lake Okeechobee to the tip of the Florida Keys. The Everglades are a shallow, slow-moving river that progresses southward through sawgrass, sedge and aquatic vegetation. Along the way are small hammocks or islands on slightly higher ground; hammocks are the only lands that remain above water during the summer rainy season. In a 1938 National Park Service wildlife survey, the Everglades were described as a "...watery wilderness of prairies, cypress, mangrove swamps, rivers, lakes, and little islands" (Beard 1938:2).

The establishment of Everglades National Park in 1947 altered traditional practices of the Gladesmen Culture in that region of south Florida. It became illegal to establish camps within park boundaries or set fires on the prairies (to increase game density). When hunting was no longer legal within the park, poaching became a problem as many hunters chose to move to new locations to hunt (Simmons and Ogden 1998:xxi).

THE EASTERN REGION

For purposes of this study, the eastern region includes portions of St. Lucie, Martin, Palm Beach, Broward, and Miami-Dade counties (Figure 10). The North and South Forks of the St. Lucie River are primary hydrological features of Martin and St. Lucie counties, with freshwater flowing toward the sea and mixing with the ocean saltwater as the two merge and become the St. Lucie Estuary. To the south, Palm Beach County comprises natural areas that include the J. W. Corbett Wildlife Management Area and Loxahatchee Slough. A varied environmental zone, physiographic features here include portions of the Sebastian-St. Lucie Flats, St. Johns Marsh, Kissimmee Valley, Allapattah Flats, and Green Ridge Loxahatchee Karst (Smith 2008:107). The more southerly portion of the east coast region is distinguished by residential, commercial, and agricultural development that is much more dense than to the north. Physiographically speaking, the area corresponds with portions of the South Atlantic Coastal Strip, Saw Grass Plain, and Andytown Ridges and Sloughs, as well as the easternmost extension of the Shark River Ridges and Sloughs.

Figure 10.
Eastern Region Images



A. Grassy Waters Preserve



B. J. W. Corbett Wildlife Management Area

