

The Everglades National Park

[FIU IDH 4007](#)

# The Neglected Beauty

**Gabriel Garrido**

IDH 4007

Fall Semester 2003

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At first glance, it appears that nature created a jigsaw puzzle out of the Everglades. The slough, the hardwood hammocks, the pineland, the freshwater swamps, the wet prairie and mangrove communities are perfect pieces of ecosystems that connect delicately one to another. Few inches of difference in ground elevation will shape the silhouette of the puzzle, and water will decide the type of vegetation and fauna that will dwell in each one of the pieces. The Everglades are an amazing puzzle, in which sadly, some pieces have been destroyed. The incompleteness of the Everglades impedes its fragile ecosystem to function the natural way in which it was slowly molded. Today, it is in our hands to recuperate as much as possible the original condition in which the Everglades was once in. Many people around the world are highly concerned about the future of the Everglades, especially Europeans that compose probably one third of the yearly visitors to the park. We cannot deny the great impact that this park produces to the world, but unfortunately, we cannot say the same about the residents of Miami. It seems that an imaginary wall separates Miami from the Everglades, blinding the locals to the needs that affect the ecosystem that they so much depend on. What are some of the reasons why the residents of Miami seem so indifferent towards the Everglades? There are different reasons, but the main motives are cultural, economical and educational.

Miami-Dade is a multicultural county in which more than half of its population is foreign- born residents. The majority of these immigrants have derived from Latin American countries such as Cuba, Haiti, Colombia and Nicaragua, which have supplied 55 % of the immigration since the beginning of the 1990's (Fair Florida). Since education about the environment is not an important issue in many Latin American countries, there is little, if any, concern bestowed in the Latin American people about their environmental surroundings. As a result, most of them come to this country not caring about environmental issues and so, not getting involved in improving our ecosystem. Another cause affecting the ignorance of the environment is that many immigrants come to this country to succeed, putting first, as a priority, their personal situation. They become so involved in bettering themselves that they have little time to enjoy what the city culturally has to offer. Therefore, most of the immigrants know very little about the Everglades and normally the information they get about the park is often very ambiguous. Everglades for many of the immigrants is synonymous with mosquitoes, heat, putrid waters and dangerous beasts, a place that is not worth the visit.

For the majority of the immigrants television is the only way of entertainment that they can afford. Due to a language barrier the only television they watch are the few channels that are transmitted in the Spanish language. The programs of these channels are dedicated to entertain and not to educate. Spanish channels do not offer educational programs or channels such as Discovery, National Geographic, and Animal planet, programs that focus in the awareness of nature. Local television in English occasionally transmits program related with the Everglades, but since immigrants normally are restricted to one language, they miss a good

opportunity to learn about their environmental surroundings.

Another important factor to consider is the poverty rate that Miami-Dade possesses, which is 20%, ranking Miami-Dade County as the 16th poorest among the large counties of the United States. Nearly one third of the population in the city of Miami live in poverty, which ranks the city of Miami as the poorest city in the United States (Habitat). The way this affects the Everglades is that these large numbers of people prioritize solving their basic life needs such as food, warmth, sleep, shelter, and stability, and knowledge about their environment never becomes important issue in their own world

Another important factor that separates The Everglades from Miami residents is the poor education that children receive about The Everglades in Miami Dade Public Schools. Having the Everglades so close to Miami one would think that the study of the park would be an obligatory subject that should be taught to every child living in Miami. In reality, the Everglades ecosystem is only briefly discussed in elementary school and sometimes complemented with a field trip to the Everglades. The sad part is that later, the Everglades are completely ignored during Middle School and High School. The Everglades is a park that should be taught throughout the entire educational years of the child, because to care about the Everglades is not something that can be acquired in just one visit, it is a continual process.

The Everglades is not a spectacular park with beautiful mountains, waterfalls, and rapids. The Everglades is flat, humid, hot and full of mosquitoes, but also is unique, intriguing and captivating in its own way. It is not a park to go to for one day; it is a park to visit constantly and to slowly fall in love with it in each visit. To love its flatness that permits the shallow water to cover most of the vast park, the heat and humidity that energizes life, the mosquitoes that have their function in the ecosystem and the sounds of nature. The Everglades has so much to offer and yet, we are so affected by our own situations, such as economical problems, cultural background, and lack of education in environmental issues, that we are blinded and cannot see all the beauty that we have before us.

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## Selling the Everglades: Gloria Estefan's \$3,000 Water Bill

Jessica DiGirolamo

IDH 4007

Fall Semester 2003

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"Please, don't be offended, Jessica, but I just don't see why it's so important to preserve the Everglades over other things," my canoe partner comments as again our watery path becomes skewed.

"It's important," I say while pushing a mangrove branch out of my way, "because it's about understanding how all things with or without life are interconnected and that includes us as human beings. It's about realizing and honoring those relationships; how the things we do reverberate out into nature and then, first, seeing how nature responds, and second, taking responsibility for our actions. It's like the stork and sparrow story we read."

"I understand that and I also understand how our changing of the water levels in the Everglades affects the birds, but I don't see how saving birds or the Everglades can be more important than saving the lives of children," a frustrated Jennifer responds.

What can I say? How can I convince Jen that the lives of birds, of all living things, are just as important as our own, if not for the simple fact that in effect the fate of those birds in the end can come back and impact the lives of children? I can't readily grasp an example that will drive my point home and silence comes in and settles down between us.

In the absence of conversation, I look around at the continuous expanse of mangroves, their adventitious roots arching over into the water impeding our progress, and am ashamed to come to the conclusion that the Everglades surely appears to be one boring place; monotonous miles of either mangroves, pine trees, or sawgrass sparsely peppered here and there with a hardwood hammock or cypress dome. Yet underneath this deceiving façade, I am comforted by my growing knowledge of the dynamic relationships and processes that are happening ever so slowly between the biotic and the abiotic elements present. Prior to eating lunch, I pondered what environmental variables might determine whether the aquatic environment below the canoe is dominated by periphyton or bladderwort. From what I can see there appears to be a difference in the depth of the water between the areas where one supercedes the other while the variation in the colors between the plant and algae bodies seems to indicate different ratios of chlorophyll a to chlorophyll b. Hence, perhaps photosynthetic efficiency plays a part in determining the areas where one species is seen over the other. Such questions provide entertainment to the scientifically inclined, yet even I find the scenery a bit tiresome as Jennifer and I steadily navigate towards land. And if I find the surroundings a bit lackluster, what about Jennifer or the general public for that matter? How am I going to sell this seemingly vapid Everglades to them?

To answer this question I found it necessary to consult with the not-so-environmentally-concerned faction of the population, my parents. To them, I related my jejune experience in the Everglades last Friday and asked them, "What would I need to do to get people concerned about the fate of the Everglades?" My mom's immediate answer was I needed to get a celebrity to speak for the Everglades or even better yet, get a celebrity to go and volunteer in the Everglades. My dad, having gotten his degree in economics, said,

"You gotta hit'em in the pockets. Go for the water bill." Not really believing that people merely threatened by an increase in their water bill would get them concerned about the Everglades, I asked him to explain further. To this query he went on to explain the impact that a high water bill could have on employment by saying, "If we take an expensive hotel, let's say the Fountainbleu, a place where on the average let's say 700 rooms are occupied per night with each of their occupants using God knows how many gallons of water to brush their teeth, shave, shower, etc. Now, imagine we have a shortage of water that drives the price of water way up. When this happens, two things will most likely occur: first, the price of the rooms will go up resulting in a decrease in the number of guests while second, in an effort to keep the rates from going through the roof, service personnel will have to be laid off."

"Of course, the water bill of the Fountainbleu will not be the only hotel whose pocketbook gets pinched by the increasing cost of water," he continues, "Other hotels and motels will feel it too, resulting in more unemployment and decreased tourist attendance. Thus, the cumulative effect is that the whole service economy goes to hell."

"Then, after the whole service economy goes to hell, the unemployed will move out of town in search of work which means fewer people buying gas, groceries, and the like. Thus, the South Florida economy takes a second blow and probably goes to hell too!"

Keeping these two suggestions put forth by my parents in mind I believe that the following public service announcement should be sufficient in generating significant concern for the plight of the Everglades:

*(Shot overlooking an expanse of sawgrass then pan left onto boardwalk and Gloria Estefan looking out at the sawgrass with her hair blowing in the wind. Slow zoom onto Gloria)*

**Gloria:** A River of Grass. That's what Marjory Stoneman Douglas called it.  
*(Gloria turns and faces camera)*

**Gloria:** But most of us know it as the Everglades. Yet, how many of us who live in South Florida have ever really seen the Everglades?

*(Zoom out showing Emilio standing next to Gloria. The couple begins to walk down the boardwalk)*

**Gloria:** Surely, Emilio and I never had in all the 28 years we've known each other until a "friend of the Everglades" played a joke on us by mailing a very official looking \$3000 water bill to our home.

**Emilio:** As you can imagine, this was a shocking surprise and a cause for great concern. I'm sure you can also imagine the great sense of relief Gloria and I felt when we called the City of Miami and found out that the bill was not real. But Gloria and I had become curious and asked if one day such a reality could come to pass.

**Gloria:** The answer was yes and that's when the relationship between Emilio and I and the Everglades began. We became educated on the role that the Everglades plays in every South Floridian's life and learned how our actions negatively impacted the environment threatening our future water supply.

**Emilio:** We've also volunteered with our kids to help remove invasive exotic plants that undermine the integrity of the Everglades system and learned how we could modify our water use behaviors to ensure a stable water supply for us and South Floridians to come.

**Gloria:** We encourage you to do the same. Educate yourself at the Everglades National Park website *(ENP website appears on screen)* about the role of water in the Everglades and our lives. Don't wait until you receive a \$3000 water bill to act. Start doing your part today.

*(Gloria makes sweeping motion with her hand across the sawgrass expanse)*

This is your Florida, South Florida and our water supply is not a joke. Let's take good care of it.

Of course, the preceding mock public service announcement is blended with a pinch of sarcasm and a dash of idealism but is such an "advertisement" really unreasonable? Would it be such a bad career move for a celebrity to make?

Still troubling though is Jennifer's question, "How is saving the Everglades more important than saving the lives of children? How is the life of a bird equivalent to the life of a human being?" Pondering over these ethical questions again, I realize that I could call on the sentience arguments of Peter Singer, the animal rights philosopher to explain broadly how all creatures that can feel pleasure and pain are equal, or perhaps she would be more responsive to an ecofeminist point of view where the "logic of domination" provides an

explanation for both man's subjugation of women and nature. Also incorporated into the ecofeminist's point of view is a stress on relationships and an "ethics of care" rather than an ethics based on abstract principles and generalities. This "ethics of care" has a basis in the relationship of mother to child and strives to extend caring about the natural world in much the same manner. Perhaps if explained in this way the equality of a bird to a child would be easier to see. Yet, given the choice of saving one's child or a bird, I believe most women would opt for the child, so the question is not sufficiently answered indeed! But consider the situation where a family's house is on fire; the first priority would be to get the children out but would one not also be concerned about the fate of the family cat or dog? My point being: we try to save things that we have built relationships with. The Everglades is a very inhospitable place where one must look patiently and scrupulously for its subtle majesty, something that most Americans are no longer trained to do in this hi-tech world that keeps one's senses saturated. Thus, perhaps asking people to build a relationship with the Everglades is too much to ask. So, does anyone have Gloria Estefan's phone number?

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## Re: Humanity

**Melissa Petersen**  
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Fall Semester 2003  
Prof. Machonis/Dr. Graham

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I was sitting in my laundry room the other day sorting through piles of dirty laundry, courtesy of my seven year old son (who seems to change his clothes every five minutes) and I found myself thinking, "If he only knew the complexities of the Watershed, the Everglades, the South Florida Water Management District, and the Biscayne & Floridian Aquifers maybe he wouldn't change his clothes so often." But then again maybe if he knew these things he would, like so many people in South Florida, not care.

We all sit here, on the very edge of an entirely unique eco-system that does not exist anywhere else on the face of the Earth. Yet, the majority of the South Florida community is concerned not with the health of this eco-system but rather with the availability of "credit". Credit which they can use to buy the right clothes, the right SUV, the right set of fake boobs and the perfect pre-fab, cookie cutter house in the right Kendall subdivision. Hence, they can appear to be successful members of this consumer driven society. Now I realize that this is a blatant generalization and that it is a rather cynical view of humanity. But, let us not forget that in this society appearance is everything. And if that is really the case, what does humanity mean in this place, in this time and in this society?" You are probably asking yourself, "What does a contemporary conceptualization of humanity have to do with the Everglades?" Well, to me, the key to humanity can be found in the Everglades and the rest of the natural world beyond it. In the biological sciences there exists the concept of "niche." I have always understood a niche to be a place or a condition in which the abilities of an organism are best utilized and best suited. Essentially, a niche is a place where an organism can belong and be successful; it is a place where it fits. All organisms on the face of the earth have found a niche somewhere and barring human intervention they have flourished in those niches. They have adapted to the world around them. It is only human beings who seem incapable of adaptation and thus expect the world around them to adapt to their presence.

Is that then the characteristic and the nature of mankind which distinguishes us from other beings? Is our humanity wrapped up in our seemingly boundless ability to alter the land which sustains us and impose our unrelenting need for growth and expansion on the rest of the natural world? Or is our humanity defined by our ability to be humane and sympathetic and our capacity for love and compassion? If the answer is the latter, then in what context does that humanity exist? Just like the niches of other organisms, human beings need a niche in which to reaffirm humanity. I doubt seriously that a subdivision in Kendall is adequate for anyone to discover sympathy, compassion and love. There is no humanity to be found in a manicured lawn with a "No Trespassing" sign. Neither is there any humanity to be found in dry, barren, desolate, lifeless, "former" Everglades.

So where then are we to find humanity, where does this abstract concept exist? Does it exist in the individual or is it a social phenomenon? Perhaps this humanity is a natural phenomenon that is founded in the natural world. I believe it is a combination of all three. The Aborigines of the Australian continent and many Native American as well as African tribes believe in a concept known as animism. Animism is the belief that every thing on the face of the earth including the rocks, the rivers, the animals and human beings has a spirit. It is further believed that all of these spirits are connected in a very intimate way. Human beings are not, as the Western World believes, beings separate from this collective unconsciousness, but rather we are a part of it. We have a place, a niche, within the broader context of the world and if we lose sight of that context or if we destroy that context then eventually we too will cease to exist.

This can be seen environmentally or spiritually. For example, we know that if we destroy the Everglades we will lose our water supply and the physical environment will no longer be able to sustain life. However, it is not only the water supply that will be lost. We will also lose an environment in which we can experience the childlike awe and wonder of existence. It is a place where we can experience one of the rarest and most unattainable things for man kind...peaceful coexistence.

The Everglades and the natural world beyond it are living examples of life in balance. Each organism plays a role in the overall health of the entire system. Each one has a vital role in the existence of every other organism that surrounds them. We, who have become estranged from each other and the very world in which we exist, need these places to show us, to remind us how to live. We need them as a living reminder that peace can not be built by putting up walls, carving boundaries out of stone and creating arbitrary racial and national identities. It can only be achieved when we remember that we are all individually part of a broader context in which we are vital to the existence of every living thing on earth.

You are probably thinking, "Whoa, did I miss something? I saw a few alligators, but I seemed to have missed the whole 'meaning of life in the Everglade thing'." And that is fine. Maybe for you the Everglades is just a really cool, relaxing, interesting place where you can see a few alligators. After all, that was what I was expecting when I went on my first airboat ride. But as I sat there, with an alligator just inches from me, I began to feel afraid. And as I contemplated that fear I began to realize that it was not really fear that I felt. It was awe. And that awe reminded me of when I was a child. It reminded me of a time when my perception of the world was one of beauty and amazement and possibility. That brought me to musings over mankind and humanity. So for me, the Everglades are much, much more than just a recreation spot. It is a place of contemplation and of possibility. And if it is the same for others as well, then maybe, one day it truly can be a place of salvation and humanity. That alone is reason to try to preserve it and keep it alive.

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# Conflicting Emotions

**Melissa Petersen**

IDH 4007

Fall Semester 2003

Prof.Machonis / Dr. Graham

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I want us to do better. I want us to be stewards of our lands and keepers of our brothers'. I want men and women to be peaceful, loving creatures across the board and across the world. I have hope for these things. Yet, I am angry. I am frustrated and overwhelmed by the legacy from which I have come. My ancestors are murderous, violent people who are responsible for such evils as colonialism, slavery and genocide. They ravaged not only countless ethnicities around the world but the natural environment as well. I am the daughter, the granddaughter and the great-great-great granddaughter of the "White Man". The liar, the treaty breaker, the villain; that is who brought me into this world. So what then does that make me?

It makes me a confused and conflicted woman. My Mother has always been very open with me about my family heritage. She never hid from me the fact that my family initially made their fortune on cotton and tobacco plantations in South Carolina and Georgia. There are towns in both of these states named after my slave-owning family members. My Mother still has in her possession the slave ledgers which recount the numbers and the prices of the slaves bought and sold by our family. She has always reminded me that we need to be knowledgeable about our history, even if that knowledge is of shameful and painful things. And let me tell you, it is both of these things. I have never really been able to reconcile my own personal beliefs with the cultural heritage that was passed on to me with my DNA.

As I have begun to delve deeper into the history, ecology and current state of the Everglades I have begun to reflect on the role that my family has played in the recent history of the Everglades. My great-great-great grandfather Chipley was the man who brought the railroad to Northern Florida. It was his line that Flager built upon and extended into Southern Florida. Countless people made their way into the southern part of this state on the path that my family began. My great-grandfather, who was a biologist, came to southern Florida as an early "pioneer". He subsequently made his fortune off a company called Shark Industries which slaughtered sharks and sold their body parts around the world. However, as my mother always says, "He never wasted one part of those sharks. He even exported the fin to be used for shark fin soup. He also discovered that sharks are a great source of vitamin A. He was a true scientist." His son, my grandfather, continued the legacy of Shark Industries well into the 1930's.

In the late 30's my grandfather became the State Editor of the Miami Herald, a position he held until the 1960's. As I reflected upon all of this, it occurred to me that since my grandfather was also a columnist for the Herald and wrote solely about "State Issues," that he had probably written about the Everglades. So last night I pulled out one of my mother's old scrap books of my grandfather's articles to see if I could find some writings about the Everglades. The scrap book I choose was an archive of all of his articles from 1943.



What I found there were not the words of a conservationist but the words of an agriculturalist. Although I was disappointed to read article after article about cutting down more trees for lumber; planting more grapefruits, oranges, pineapples, tomatoes, cucumbers, celery, lettuce, cabbages, strawberries, watermelon, cantaloupe, potatoes, sweet potatoes, eggplants, peppers, peaches, onions, green beans, green peas, and sugar cane; and clearing more land for more cattle, I learned many things that I did not know and was reminded of something that I did.

The concept that I was reminded of is best expressed by that old cliché, "Nothing is ever 'black or white'." There are no absolutes, nothing and no one exists in a vacuum. The agricultural boom that was taking place in central and south Florida during 1943, as I discovered through the articles, was driven by the demands of a war-time economy and fear of a post-war economic depression. As we all know, after WWI the United States suffered the "Great Depression." This depression left countless Americans homeless, penniless, and starving. During WWII the wounds left from the Great Depression were still very fresh for many Americans. In addition to the memory of that depression, the memory of the devastating hurricane that ravaged northern Florida and killed an estimated 3000 people in 1928 was also still very fresh in the minds of the "transplanted 'native' white Floridians."

These new "Native Floridians" did not see their endeavors through the lens which we see them now. They saw their actions as being vital to national survival. Many of the articles focused on how the produce from Florida was quickly becoming the primary food source for the soldiers and how the naval defense of the country depended on the lumber and limestone (used for cement hulled war ships) produced in Florida. However, I should note that war time propaganda is of a powerful and persuasive nature and it is unclear to me if these claims are actually true. That point aside, each new article expounding on the increased bushels of vegetables or head of cattle was, to the Floridian of 1943, a sign of hope for their future. In fact agriculture was so important to them that (according to one of my grandfather's articles) Sarasota extended the Christmas Vacation of the areas schools in 1943 from December through March so that the children could help harvest the celery crops.

Little did they know that their agricultural fervor would lead to the current state of Florida ecology. Actually, I don't know if they were completely ignorant of the ramifications of their actions. But, if the title of my grandfather's August 7, 1943 column is any indication of their knowledge I would say the answer was most likely that no, they didn't know. "Everglades Seminoles Help Improve 3,000 Acres Of Land To Be Used As Cattle Grazing Ranges" is the title of that column. This particular article was the only article from that entire year that actually mentioned the Everglades. The sentiment of the article: Improve the land by draining the land and use Seminole Indians to do the labor for you! No need to pay the Seminoles much, and as a bonus you don't even have to give them housing because they live in those odd little huts. Allright grandpa!

Needless to say there is a lot about my family and my culture that I am ashamed of. Yet, those things are the very things that compel me and inspire me to open my mouth and my front door and participate in my society. I know who my family is, where they came from, what they did and how they placed themselves in relation to the world around them. That knowledge forces me to look at myself, where I am, how I live and how I place myself in relation to the world around me. Hopefully, with this knowledge, I can leave a legacy and a heritage of conservation, kindness and compassion so that my great-great-great-grand daughter will not be ashamed of me.

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# Lonely Cypress

Melissa Acosta  
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Fall Semester 2003  
Prof.Machonis / Dr. Graham

## STUDENT NOTE:

I painted my "Lonely Cypress" and wrote this poem because, although I do not have a genuine talent in either art or poetry, I was inspired by our guests, painter Joe Palmario and poet Anne Sullivan, who were both so taken by the Everglades. I admire their love of this land, because I too feel the same. I wanted to try something different in order to express my thought.

*Melissa Acosta*

## Lonely Cypress

*Standing alone in  
Surrounded by roaring  
The spike rush sings  
And you stand tall*

*The golden rays caress  
And sweet drops of dew  
Yet even at night  
Your beauty does not*

*And as the garrulous  
And the great white egret  
Your slender leaves wilt as  
But through time you will*

*O, lovely, lonely cypress,  
None will rob your*

*a river of grass,  
sawgrass of gold,  
as the wind hurries past,  
swaying softly yet bold.*

*your tender bark,  
lay on your fingers;  
when the sky is dark,  
ever fade, it lingers.*

*wind passes by,  
sits by your bough,  
if you will die;  
abide as you are now.*

*dry your tears,  
beauty, not even years.*

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# The Everglades: So Hard to Love; So Hard to Forget

**Caroline Poizat**  
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Fall Semester 2003  
Prof.Machonis / Dr. Graham

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How come the Everglades are so hard to love? How come some people go there and come back full of mosquito bites, all disappointed and upset from their Everglades trip, while others become so involved that they cannot forget the Everglades and choose to live surrounded by them? What is it? Why do some people get it and why do others not? There sure is something. Everglades, tell me, what is your secret? Why are you so harsh with some people and so generous with others? What do you need from us? Is there a password? "Open Sesame."

I'm the Everglades, the largest national park of Florida. I'm so unique that I do not need your love. I have too much to do to protect my people against you, humans. Why do you want me to give you something when you give me such a hard time? I lived in peace for five thousand years without you, humans. I succeeded for a long time in holding you back, away from my dear species and me. But I failed. Little by little, you have invaded and devastated my land. You have destroyed my water flow, made almost extinct some of my most precious species. I had to surrender and ask for help. I made a deal with your American government to be protected and became a national park some fifty years ago. In exchange, I had to agree to show my wonders to people who come to visit me. However, I did not forgive men so easily. You have betrayed me so many times. As for my little tree snails, you have ruined them. You have destroyed my artwork. For so many years, I was patient enough to create tree snail hammocks, all with their population of tree snails unique and beautiful. Each hammock had tree snails with a different pattern of colors. But, you, humans, have destroyed everything; your cupidity and stupidity have altered the distinctiveness of my little tree snails. Because of you, they are no longer unique.

Nevertheless, I know that I can trust some of you as I can trust my friends the Indians. They have always showed me respect. I lived in peace with the Calusas, Ais, Jeaga, Tequestas for so many years. I helped the Seminoles when they were escaping from the White men. I can be friendly if you are worth it.

However, I do not care about these people who come to see me with their stress and their problems. Why should I give something to these people who don't even dare to recognize how marvelous I am? They mistake me for a zoo. They do not know; they do not care. They come to see me, but they get nothing from me. I send them my precious allies, the mosquitoes. They do a pretty good job, don't you think? Sure these tourists come with their insect repellent, but they always forget some spots. And for sure my friends will bite them. When they sit down to eat their sandwiches, I ask my American crows to steal their meal. I do

not need these people's love. I do not want them to come back.

But if you come full of respect, forgetting about yourselves, I will show you my secrets. Open your heart and you will see my treasures. Sit down with me in peace, and hear my advice. I will show you how to look into things. But nothing in this world comes without cost. In order to protect myself from further deception about your race, you have to pass some little tests of my own. You have to be comfortable with my humidity and be ready to sweat. You need to be exhausted physically (paddling, slough slog...) in order to reach serenity on my land. And only then, I will show you a glimpse of heaven. If you are brave enough to struggle through my fierce sawgrass and face my armada of mosquitoes in January, you will enter a cypress dome full of orchids' blooms. If you show me your patience, you will see my purple gallinules, blue herons, egrets, roseate spoonbills, Florida panthers and other marvelous species of my own. Ask my friend Clyde Butcher. Clyde opened his heart to me after the loss of his son. To comfort him, I show him my marvels. He took my pictures from my best profile. When light, cloud, water and nature are in perfect coordination, my flatness that so many people complain about is breathtaking. Did you go to see my pictures?



From <http://www.clydebutcher.com/>

I'm magnificent, don't you think?

You cannot buy me with your dollars. To discover me, you have to discover yourselves. Please sit with me in silence. Listen to the pig frogs, the wind blowing through the saw grass, the little birds calling for their mother. To love me is a state of mind. You have to understand Nature in order to love me. You have to be patient and willing to learn. What is your purpose in life? We all make choices. Make yours about Nature. Make the right ones and I will show you my way. You will become so close to your true self that you will be filled with disdain for your ugly world. To come to see me will be a necessity in order to clear your mind of your needless human values.

But, be careful. When I give you my trust, don't ever betray me. Eyes are watching you from the sky. My faithful vultures will report your abuses and disobedience. Do not forget that you are not in your world, but in mine. My rules apply, not yours... If you show me disrespect, you will receive the visit of my venomous snakes and your regrets will be too late.

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The Everglades National Park  
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# The Matrix

**Caroline Poizat**  
IDH 4007  
Fall Semester 2003  
Prof. Machonis / Dr. Graham

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Last Friday, Dr. Graham asked a very interesting question: what are the reasons of the creation of the Everglades National Park? My question is: Why do countries around the world create National Parks and where does this need come from?

I think the answer lies in human nature. Humans are one of the rare species that cannot live along with other species without the "need" to destroy them. I was reading, in the Visitor Center, about the particular situation of the different species of the Everglades during the dry season. They all have to live together (predator and prey) in restricted areas where the only sources of water are found. The most critical part is for the aquatic life that has to gather in Gator holes, becoming an easy prey for birds and gators. However, life is well organized. A natural equilibrium exists and all species survive: none of them becomes extinct because of this proximity.

Except, of course, when humans come into action and upset the balance of water in the Everglades during the dry season. The ecological system, this balance that exists thanks to the evolution for generations of all species, is destroyed. The consequence is the extinction or near extinction of several species like the wood storks that cannot adapt to the intrusion of humans in their ecosystems. Therefore, there is the need to create National Parks.

I think that the movie *The Matrix* catches something from the reality of our world. The majority of people live with personal and professional goals. They have to succeed in their careers to be able to have the lives they want and to accomplish their dreams. However, they live in a closed world where only humans are present. (I concede that dogs, cats and pets in general have a place in this world.) Their only limits are imposed by laws, traditions, and culture. They are answerable to nobody, except other humans. There are no big predators to worry about.

Nature is only a perfect place for vacation, a perfect getaway or a wonderful location to build a vacation home. Actually, nature is only a convenience to humans. Humans do not adapt to nature. Nature has to adapt to human uses. Humans see nothing else in it. For sure, they are sometimes impressed by how magical or spectacular some places can be or they are amazed by the various species that live in nature. Sometimes, also, they are annoyed by nature. For example, they do not think someone will ever complain if we eradicate the mosquitoes from the face of the earth. They have a well-organized life where the consequences of their actions in the natural world do not concern them.



However, nothing is perfect. Some humans starve to death while others have an opulent life full of "human things" (materialism). Who will be rich or who will be poor is determined by the human system: the Matrix. In the movie *the Matrix*, I think Agent Smith makes a good point when he explains that they have tried to create a perfect world for humans without any violence, murder or anger, but this matrix has failed because Evil is part of human nature. We curiously need to destroy others or ourselves.

A few humans have escaped from the Matrix (from the artificial human world.) They are the ones in the last step of the Maslow Hierarchy of need: self-actualization. These escapees realize that humans are not the only species on the planet. They realize that other organisms live on this planet. They also realize that humans were on the path of destroying a part of and maybe, in the long run, all other species (plant and animal) that were perceived as not necessary to their survival. So here comes the emergency to create sanctuaries to protect the world from humans. I agree it is not an easy task. How do you convince people that it is necessary to protect something, if people have no idea that this something exists? In some case, like the Amazon forest, it is difficult to protect it. How do you explain to local farmers, who want to do the same thing that we did to the Everglades or others ecosystems, that they cannot? Because others humans have destroyed the majority of the oxygen supply of the planet, they should not destroy the forest. They should preserve the natural world. It is *Mission Impossible* to make sense of the necessity of protecting the other part of the planet (the natural world as opposed to the human world) because people live in the Matrix. The natural world is only a convenience; it is nothing important. The economic reality of our world is more important because inside the Matrix that is the only one that counts: you cannot be part of society if you do not follow the human rules.

To come back to the marshmallow thing, alligators are here to amaze the public: "Where are the alligators?" Tourists do not see the Everglades as they should be. They see the natural world as part of the human world. They should instead see the human world as part of the natural world. I was puzzled when Dr. Graham, the first day of class, said that if a hurricane hits the Florida coasts and the level of water threatens human lives, we will evacuate the water in the Everglades even if there will be a risk of destroying it. Yes, we are back into the Matrix: 0.0002% of human population worth the destruction of a unique ecosystem.

Where am I? I guess I'm still trying to escape from the Matrix. Some part of me is still definitely into it: I am going to the University to be part of the good side of the human world. The part that tries to escape from the Matrix is the one who chooses the Everglades class in the hope to understand the other world. I was always attracted by this other world. I was part of a "green" elementary school where the morning was dedicated to the regular school program and the afternoon concentrated on Nature. I was really shaped by this period. I'm going to tell you something I did when I was younger but do not tell my parents who, after more than fifteen years, are still mad at me. We were living in a newly built villa in the South of France. My father was ready to install a gate to close our yard. However, there was a problem: an old oak was in the middle of where the gate was supposed to be. It was then very difficult to enter the property with a car. The solution was then to cut the oak. I was 8 and I revolted. How could we possibly kill a tree that was 200 years just for our convenience? I tried to convince my parents that it was not the right thing to do, but I was only a child and they did not listen to me. At the same time, at my school, the mayor of the village visited the new concept of the "green" elementary school. I did not remember very well but he was from an ecological party and I think he gave a speech about the importance of the natural world in our lives. So, I went to see him and explained my problem about this poor oak that was to be killed. And for sure, he listened to me: my parents did not get the permission to cut the oak. Many people still wonder why my parents have a 200-year oak in front of their gate. This was the little anecdote of Journal #2.



To come back to our matrix, I do not know if there is a solution. We definitely cannot reload the matrix. Can all people be freed from the matrix? I don't think so. Many people are not ready for the truth. The creation of National Parks is part of the solution. We will be sure that some parts of the other world remain. However, as we can see with the Everglades, it is impossible to protect it totally from the human world. The agricultural fields of the north of Florida pollute the Everglades and change their ecosystem. Paradoxically, the Everglades need human help to fight back against exotic species or to light fires to protect the pineland ecosystem. And even worse, they need money from the economic world to survive.

To make people aware of the importance and the complexity of the other world is a solution. But the question is: can we all live outside the Matrix?

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## Sunset on Heaven's Backyard

**Jorge Banos**  
IDH 4007  
Fall Semester 2003  
Prof.Machonis / Dr. Graham

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**By Bill Gladish**

On our first canoe trip I tried to imagine how the sun would look as it melted away in the endless span of water. The picture above and my painting below, its depiction in Acrylic, only begin to grasp the infinite spectrum of colors that exist in this untamed world.



**Sunset on Heaven's Backyard by Jorge L. Banos**

It is amazing how we have the technology to walk on the moon and communicate instantly with someone half way around the world, yet we still cannot tame the earth's color on paper or canvas.

Jorge Banos

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# "The More You Start to Look... The More You See"

**Jorge Banos**  
IDH 4007  
Fall Semester 2003  
Prof.Machonis / Dr. Graham

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Aligators, snakes, mosquitos, and swamps was all I knew  
I had not yet awakened

My eyes had not yet opened to the truth and beauty  
They were shut by Hollywood

The Golden Orb Weaver had not yet spun before my eyes  
It's intricate pattern had not yet trapped

The operculum had not yet welcomed me to its home  
The apple snail had not come up for air

I never looked  
I never saw

Never understood the majestic confidence of the red-shouldered  
hawk  
Preying as if a skillful knight

The finicky Snail Kite had not yet ordered up his meal  
Escargot to go please!

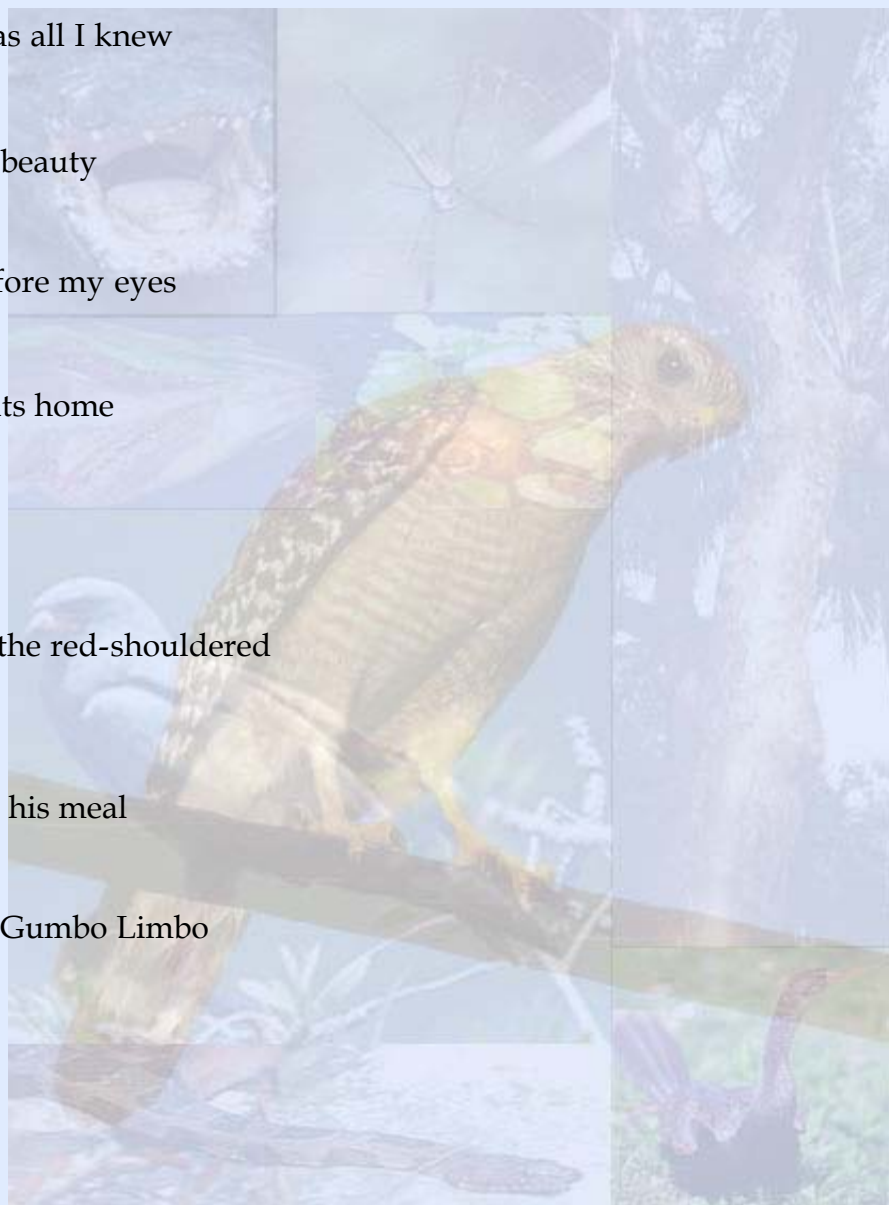
Never stopped to feel the peeling bark of the Gumbo Limbo  
Always reminding us to wear sunscreen

I never saw  
I never looked

I'd never seen the saw grass tickle the sun  
Or the sun bathing in the mangroves

Never imagined the Anhinga's precision and dexterity  
Spearing it's prey from above

Never felt the earth embrace my feet crying for help



Asking why do we do the things we do

My eyes have only now begun to open  
Though I feel I have missed so much

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## Hidden Treasures in Life

**Nigel Hart**

IDH 4007

Fall Semester 2003

Prof.Machonis / Dr. Graham

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I've begun to contemplate what the Everglades and the Everglades Honors class have taught me. Since my decision to go back to school, after 10 years in the hot Hawaiian sun working in the construction trade, I usually don't think about how I am affected by my classes. My focus was just excelling and receiving another A in a class and moving on to the next challenge. I just felt it necessary to hurry up with my education and attain my degree. But as we sat there in the hardwood hammock, discussing our readings on how our experiences in the Everglades and our class have enriched our lives, I realized that I would miss this experience when it was all over. Now listen, I'm not saying this to get an A. I really mean it! The questions are thought provoking and the different answers that my fellow classmates offer illustrates the beauty of our diversity. Such is the Everglades; it is a hodge podge of diverse plants, animals and terrains. This experience in the Everglades has shown me that in order to see the beauty in something that doesn't immediately strike you as beautiful, you need to slow down and observe it carefully to begin to appreciate its loveliness. As I contemplated this experience I compare it to that of a gold miner; for him to find gold in the earth he needs to dig deep and move a ton of dirt to discover just an ounce of gold. The Everglades is also like this; it is subtle and hidden, I needed to move beyond the beaten path and get off the scenic road to see its diversity and uniqueness. I needed to pay attention and look at the details and see how they relate to one another.

The Everglades that I've come to understand and appreciate is not a kind place, it is rugged, hot, humid and wet. Such is life. Yet the world in the concrete jungle is also unkind. But it is my attitude and how I view life that affects my view of it. I'm not saying to look through rose-colored glasses, but like viewing the Everglades you need to look carefully at it to appreciate it's wonder and beauty. A comment by Ansel Adams regarding the Everglades states, "*This is not a landscape for picnics, or for nature appreciation, but for the testing of souls.*" He was right concerning the everglades being a place, "...for the testing of souls." and it's also true that the Everglades, "*is not a landscape for picnics*". The Everglades is not a Yosemite, Yellowstone, Grand Canyon or the Grand Tetons, where you can look and be awed by the scenery. But when Adams states, that the Everglades is not a place, "*...for nature appreciation*", I believe that he might not have taken the time to carefully look for the beautiful Florida Tree Snail. Maybe his perspective of nature appreciation was limited to great landscapes and not the smaller less obvious beauty of snails or birds such as the Roseate Spoonbill, the Great Blue Heron or a plain looking Anhinga. (It was this viewpoint in that era that perpetuated the idea of the Everglades being a swamp without any appreciable beauty that needed to be drained for progress and development.) But it is this subtle and quiet quality that makes the Everglades a hidden treasure. Even the top predators such as the American Alligator and the Florida Panther travel



silently in their attempts to stay hidden. The beautiful tree snail with its different and diverse colors is hidden in between the branches of its host tree. As I walked through the trail I had to walk slowly and look carefully at the crevices of the tree trunks to find these hidden beauties. I don't think I could have seen them, if I was just strolling along and not carefully and purposefully looking for them.

Another great experience of the reality of the hidden beauty of the Everglades happened during our slough slog. As we were sitting down for lunch in the cypress dome, I began to look at all the different flora around me such as the orchids and bromeliads. The hidden Green Treefrog in a PVC pipe and the Mosquitofish attacking the hair on my arm were all hidden creatures that I would not have seen, if I didn't get off the beaten path and patiently sit in the cypress dome to observe what was around me. Probably out of all the animals in the Everglades it is the smallest animals that are the most aggressive and bold, such as the mosquitoes and the Mosquitofishes. Some Mosquitofish had black and white stripes like a zebra and as I would try to slowly catch them in the palm of my hand and they would leap out of my hand escaping into the air like a salmon swimming, then jumping up a waterfall. Yes, I was still paying attention to the class discussion concerning Zora Neal Hurston's novel, "Their Eyes were Watching God" and how the protagonist Janie Woods has a dream to escape from her current condition to find her voice and her self worth. The icing on the cake was at the end of our walk in the dome. We ended up at the northern end of the dome. The amount of flora was incredible (the mosquitoes were also in plentiful supply). The exhibition of the bromeliads was incredible; they were all over below and above us. The Spanish Moss was the longest I've ever seen and the natural beauty of the orchids was astounding. I was also amazed by the natural picture they portrayed, it was not as a man made landscape of strategically placed plants here and there, they were everywhere all competing for what little natural resources was available in the cypress dome to sustain themselves. I was turning from one side to the other in amazement looking at all the different plants, or maybe I was turning so much in a futile attempt to keep the mosquitoes away. I didn't expect this in my wildest imagination; it has left an impression with me. I had to share it with my brother in law and sister. They now want me to take them on a slough slog and I hope I don't get them lost. But seriously, at times life is the same way, you need to dig in the dirt and move a ton of it to find an ounce of gold. The digging is the sloughing through the water to find the beauty and gold within the dome. You can miss the hidden treasures within the dome; I would have looked at the dome and said to myself just another bunch of trees. I would have never contemplated going into them to excavate their visual fortune and explore its rich biological diversity.

Between my best attempts at being a full time Mr. mom and student, I have not managed my time in a way that allowed me to be still to meditate and reflect on the issues that affect my life. This past week I've done some of that and I've come to realize that I need to stop and smell the orchids and pine trees along the way. I need to be more creative with the time that I have, to contemplate how my educational and parental experience is changing the how, what and the why of my life. Yes, Life is like the Everglades you need to get off the beaten path and look carefully for the tree snails of life.

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## Groundwater in South Florida

**Camilo Ponton**

IDH 4007

Prof.Machonis

Spring 2003

Groundwater is one of our most important and widely available resources, yet people's perceptions of the subsurface environments where it comes from are often unclear and incorrect. Observations on the land surface give the impression that Earth is solid. Because of this observation many people believe that groundwater occurs only in underground rivers. In reality, most of the subsurface environment is not solid at all. It includes tiny pore spaces between grains of soil and sediment, and narrow joints and fractures in bedrock. Together, these spaces add up to an immense volume. It is in these small openings that groundwater collects and moves.

Considering all of the Earth's water, only about 1% occurs underground. Nevertheless, this small percentage stored in the rocks and sediments beneath earth surface, is a large quantity. When the oceans are excluded and only sources of freshwater are considered, the significance of groundwater becomes more apparent. The largest volume occurs as glacial ice (roughly 85%). Second in rank is groundwater with 14% of the total. However when ice is excluded and only liquid water is considered, more than 94% of all freshwater is groundwater.

Without question groundwater represents the largest reservoir of freshwater that is readily available to humans. Its value in terms of economics and human well-being is incalculable (Tarbuck, 125). When rain falls, some of the water runs off, some evaporates, and the remainder soaks into the ground. This last path is the primary source of underground water. The amount of water that takes each of these paths, however, varies greatly both in time and space. Influential factors include steepness of slope, nature of surface material, intensity of rainfall, and type and amount of vegetation. Heavy rains falling on steep slopes underlain by impervious materials will obviously result in a high percentage of the water running off. Conversely, if rain falls steadily and gently upon more gradual slopes composed of materials that are easily penetrated by the water, a much larger percentage of water soaks into the ground (Hydrogeology, Fall 2002).

It is important to be acquainted with the following terms in order to have a better understanding of groundwater flow.

**Aquifer:** Rock or sediment that is saturated with water and sufficiently permeable to transmit economic quantities of water to wells and springs.

**Confined Aquifer:** An aquifer that is overlain by other rock layers or confining unit.

**Unconfined Aquifer:** Aquifer with no confining units overlaying it, thus having direct contact with the surface. Also termed water table aquifer.

**Porosity:** The ratio of the volume of void spaces in a rock or sediment to the total volume of the rock or sediment.

**Permeability:** The ability of a material to allow the passage of a liquid, such as water through rocks. A measure of the water bearing capacity of subsurface rock. With respect to water movement, it is not just the total magnitude of porosity that is important, but also the size of the voids and the extent to which they are interconnected.

**Water table:** Surface that divides the point between saturated and unsaturated pore space in the bedrock. Below the water table all the pore space is saturated with water. In this way the water table is the top of the water surface in the saturated part of the aquifer (Fetter,28)

The quantity of groundwater that can be stored depends on the porosity of the material. Voids most often are spaces between sedimentary particles, but also common are joints, faults, and cavities formed by the dissolving of soluble rock such as limestone.

Variations in porosity can be great. Sediment is commonly quite porous, and open spaces may occupy 10 to 50 percent of the sediment's total volume. Pore space depends on the size and shape of the grains, how they are packed together, the degree of sorting, and in sedimentary rocks, the amount of cementing material. For example, clay may have a porosity as high as 50 percent, while some gravels may have only 20 percent voids.

Porosity alone cannot measure a material's capacity to yield groundwater. Rock or sediment may be very porous but, still not allow water to move through it. The pores must be connected to allow water flow, and they must be large enough for water to go through, the permeability of a material is also very important. Groundwater flows through small, interconnected openings. The smaller the pore spaces, the slower the water moves. This idea is expressed in the table below. Groundwater is divided into two categories: that portion which will drain under the influence of gravity (called specific yield) and that part which is retained on particle and rock surfaces and in tiny openings (called specific retention). Specific yield indicates how much water is actually available for use, while specific retention indicates how much water remains bound in the material. For example, clay's ability to store water is great owed to its high porosity, but its pore spaces are so small that water is unable to move through it. Thus, clay's porosity is high but because its permeability is poor, clay has a very low specific yield.

**Table: Selected Values of Porosity, Specific Yield, and Specific Retention**

Material	Porosity	Specific Yield	Specific Retention
Soil	55	40	15
Clay	50	2	48
Sand	25	22	3
Gravel	20	19	1
Limestone	20	18	2
Sandstone	11	6	5
Granite	0.1	0.09	0.01
Basalt	11	8	3

Values in Percent by Volume

Source: U.S. Geological Survey Water Supply, Paper 2220, 1987

### Principal Aquifers in Florida:

The Floridan Aquifer is the biggest aquifer and is imperative for water supply to much of the state of Florida. It underlies Florida and parts of Georgia, Alabama, as well as South Carolina. It gets its recharge from northern and central Florida, where it is unconfined. It discharges along the coastline, to streams and in many springs in northern and central Florida. It is composed of mainly of mudstones. The upper unit of the Floridan Aquifer has moderate to high transmissivity ( $5 \times 10^4$  ft<sup>2</sup>/day in confined areas and 106 ft<sup>2</sup>/day

in unconfined areas, has good water quality and is the major supply of potable water in North and Central Florida. The lower unit has extremely high transmissivity, but the water quality is saline and is used for disposal of treated sewage water (Deep Well Injection). In South Florida, the Floridan Aquifer is brackish and is not useful for water supply.

The Biscayne Aquifer underlies an area of about 4,000 square miles and is the principal source of water for all of Dade and Broward Counties and the southeastern part of Palm Beach County in southern Florida. The aquifer extends beneath the Biscayne Bay (from whence it was named) and the Atlantic Ocean. It is one of the most prolific aquifers in the world and it is composed of very porous limestone units (large pores created by secondary dissolution). The Biscayne Aquifer is unconfined and shallow; the water table varies from a few feet deep to as much as 150 feet near east coast. The aquifer is very susceptible to pollution due to its great permeability, unconfined nature, near surface location and its existence close to polluting urban areas (many landfills, leaking gasoline tanks, airports, and industry). Transmissivity of the Biscayne Aquifer is  $3 \times 10^5$  ft<sup>2</sup>/day to  $2 \times 10^6$  ft<sup>2</sup>/day (Aich, 17).

### **Aggressive Pumping:**

Excessive water pumping from the Biscayne aquifer has caused water table to lower. The aquifer could be recharged only through pervious surfaces. That is why it is very important to preserve the Everglades. As population grows, not only more water is being pumped out every day, but also new buildings, malls, and roads, (impervious surfaces) cover the porous limestone, obstructing the recharge of the aquifer.

Florida's rain pattern in the long term consists of years with surplus of fresh water and years of scarce rainwater. The surplus water is disposed to the ocean, to prevent flooding. This surplus rainwater endangers the estuarine environments. On the contrary, during the dry years, the water table lowers down risking the productivity of the aquifer due to salt-water intrusions, and generating high risk of sinkhole formation.

### **The Aquifer Storage and Recovery Project:**

Aquifer Storage and Recovery is an important technology that is proposed to provide water to the Everglades and South Florida's people and farms in the coming decades. In addition, ASR will help manage water levels in Lake Okeechobee, and reduce damaging discharges to coastal estuaries. Called "ASR", it is a process through which excess water is pumped deep underground for storage in a confined aquifer and recovered when needed.

ASR is a technology that has been in use for more than 30 years in the United States and since 1983 in Florida. As it is proposed in the Comprehensive Everglades Restoration Plan, this technology would be used to deliver water to the population as well as the environment.

The Everglades needs water to be restored. One goal of the Comprehensive Everglades Restoration Plan is to capture 1.7 billion gallons of water currently sent to sea each year during periods of heavy rainfall in order to avoid flooding. Much of this water will be captured and stored underground in ASR wells for use later by natural ecosystems, people and farms or in either surface or in ground storage areas (ASR Brochure, Jan. 2002).

Excess rainwater will be captured in a reservoir or lake, pumped from the area, treated, and injected approximately 1,000 feet underground for storage in a confined, porous aquifer. The injected fresh water forms a bubble within the aquifer's heavier, brackish water. The fresh water can be retrieved during dry periods.

"The role of ASR in the Comprehensive Everglades Restoration Plan is extremely significant, as the storage capacity of ASR provides benefits which are not otherwise possible through surface water storage. ASR allows us to store large volumes of water when rainfall is plentiful, and retrieve it later as needed. Unlike surface reservoirs, little water is lost to evaporation and large land acquisition costs are avoided. ASR is a technology that has been identified to provide water to the Everglades and also to the urban population and farms, and to help restore Lake Okeechobee and the Caloosahatchee and St. Lucie estuaries" (ASR Brochure, Nov. 2002).

ASR involves pumping freshwater which has been treated to drinking water standards, approximately 1,000 feet underground where it is stored in a confined aquifer and can be recovered later. The pumped freshwater displaces the brackish water of the Upper Floridan Aquifer, resulting in an underground reservoir of freshwater on a relatively small scale. The Comprehensive Everglades Restoration Plan (CERP) proposes to use up to 333 ASR wells to store as much as 1.6 billion gallons of freshwater per day to ensure water for the Everglades, improve conditions in Lake Okeechobee and prevent damaging releases of freshwater to coastal estuaries. Some water also would be available to support agriculture and to protect urban wells located near the coast from saltwater intrusion (ASR, Nov. 2002).

ASR pilot projects will be located around Lake Okeechobee, adjacent to the Hillsboro Canal south of the Arthur R. Marshall Loxahatchee National Wildlife Refuge, and near the Caloosahatchee River. The number of five million gallon a day (mgd) ASR wells varies by project, but each site will include pumping and water treatment facilities, monitoring wells and equipment needed for operational testing.

Design studies for the Pilot Projects are currently in progress. When these studies are complete, a Draft Pilot Project Design Report (PPDR) and Draft Environmental Impact Statement (EIS) will be prepared and distributed for public and agency comment in accordance with National Environmental Policy Act (NEPA) guidelines. After the Final PPDR/EIS has been approved, construction plans and specifications will be prepared and the ASR Pilot Project constructed.

Following construction, operational tests will be conducted for two years under the guidance of the Pilot Projects. The Lake Okeechobee and Hillsboro ASR Pilot Projects were authorized in the Water Resources Development Act (WRDA) of 1999; the Caloosahatchee (C 43) River ASR Pilot Project was authorized in the Water Resources Development Act (WRDA) of 2000.

**Lake Okeechobee ASR Pilot Project:** This project will locate ASR wells at three sites around Lake Okeechobee. In this way, a geographic understanding of ASR system performance around Lake Okeechobee can be established. One site is expected to have a cluster of three ASR wells to demonstrate how multiple wells perform; the other sites will have one well each. Operational testing and data collection, which follow construction, are to be completed in the fall of 2009.

**Hillsboro ASR Pilot Project:** This project is located in southern Palm Beach County just south of the Arthur R. Marshall Loxahatchee National Wildlife Refuge and north of the Hillsboro Canal on land owned by the South Florida Water Management District. The project consists of a cluster of three ASR wells. Operational testing and data collection, which follow construction, are to be completed in the summer of 2009.

**Caloosahatchee (C 43) River ASR Pilot Project:** This project is located just west of LaBelle, near the Caloosahatchee River on land owned by the South Florida Water Management District in Hendry County. One ASR well is planned. Construction and testing are to be completed in the spring of 2010 (US Army Corps of Engineers, ASR Regional Study 2002).

The scope of the ASR Regional Study was established by a multi agency team and was based on recommendations of the South Florida Ecosystem Restoration Working Group and the National Academy of Science. The study goes well beyond what can be learned from the Pilot Projects to address the potential effects of large scale ASR on water levels, on water quality within the aquifer, on surface waters, such as Lake Okeechobee, and on plants and animals. The study also will develop a regional computer model of the Floridan Aquifer system to be used in evaluating impacts in specific areas.

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## The Adventures of Bryan Spencer

**Camilo Ponton**  
IDH 4007  
Prof.Machonis  
Fall 2002

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Bryan Spencer is a tough guy. He is a true adventurer. Bryan is one of those few people in the world who lives for the action. He is always looking forward for a new day full of risks and experiences. Bryan engages in one adventure after another. His life is frenetic. It is a sequence of trips around the world without any apparent pattern or logic reason. Bryan Spencer is the greatest explorer of our days. Many call him crazy, and maybe he is. But he is tough.

Bryan Spencer has survived the attack of the wildest creatures on Earth. There has not been a great white shark able to rip off one of Bryan's legs. There has not been a Bengal tiger capable of surprising Bryan taking a nap. There has not been a creature capable of producing strong enough venom to kill Bryan Spencer. He has survived the biting of a Mexican tarantula, a black mamba, and a Komodo dragon. Once, a thousand hornets stung him at the same time, and the next day he was getting ready to scuba dive on a fire coral reef. Bryan Spencer is a survivor.

The mighty explorer has traveled around the world. He took a sun bath in the beaches of Dubai, went ice fishing over the Bering Strait, island-hopped in the Polynesian sea, climbed the Andes Mountains hiking backwards, walked through a sand storm in Kalahari with his eyes open, swam across the Amazon River while mingling with the piranhas, and many other things. One day, he began walking east and traveled in that direction until he returned to where he had started. The globe is too small for Bryan Spencer.

But one thing he has not done is crossing the Everglades. How could he miss that one? Of course he will not.

With no preparation at all, he arrived at the Everglades National Park by parachuting from a military Hercules plane that was on its way to Guantanamo Base in Cuba. He plunged in the middle of nowhere, exactly as he preferred. The water was up to his knees and he loved it! He had walked half a mile when he noticed the lacerations in his arms caused by the saw grass. He definitely felt at home in those marshes.

Spencer was a world known ornithologist and he could not miss such a unique opportunity. He promptly unpacked his 8x40, water resistant, nitrogen filled Minolta Compacts, and a copy of The Sibley's Guide to Birds, even though he had almost memorized it by that time. While he was distracted observing the magnificent iridescence on the male Boat-tailed grackle's collar, he arrived to a hardwood hammock. He decided it was a good place to rest and protect his skin from the sun. There he romped around with a Florida panther. After a short nap, Bryan was thirsty. He looked inside his pockets and found clusters of periphyton which he readily chewed and swallowed the out coming refreshing water.

When he returned to the "River of Grass," the sun was coming down, and the mosquitoes began to thrive in the air column. Sooner than later, every square inch of Bryan's body had been pierced at least once by the bloodthirsty creatures. Unluckily enough, he could not do anything about it, because it was his fate that he was to be born allergic to N,N-diethyl-m-toluamide! It is worse for an explorer to be allergic to deet than for a fisherman to be allergic to fish. But well, he was a tough cookie. To keep himself busy with other things, he grabbed some pond apples from a nearby tree and began to taste them with ease. Soon after,



he found they were bitter and decided to have some coco-plums instead.

While Bryan continued walking through the marshes, all the airboats were returning to their docks packed with happy tourists, which will later go to relax and spend some money at the Miccosukee Hotel and Gaming Resort. At the same time, the starved alligators returned to their dens.

The sun was nearly at the horizon and it had that spectacular red-orange coloration, remembering that the day was gone, but also giving hope for a better tomorrow. Suddenly, a dark leathery keel emerged from the waters creating a perfect "v" shaped wake. Such a creature was stealthy enough for Bryan Spencer not to notice it until it was a few feet away. When he saw the green snout, it was too late to try to escape. Of course an experienced adventurer like him was not frightened. He knew what he was dealing with. Indeed it was an Alligator mississippiensis, but he slightly underestimated its size. This was a nineteen-foot long reptile, with more teeth than a baby shark, sharper sense of smell than a wild pig, and faster than the tongue of a chameleon. Worst of all, it was a hungry beast. Bryan knew he had no chance to escape, so he decided to play a trick he learned in the Nile River. He remained still as if he were a dead log, rooted in the nutrient poor and dark bottom-soil. But this alligator was starving. It came up to the wannabe log and in a split second ended the adventurous life of Bryan Spencer with a single mortal stroke.

Oh! The glorious explorer Bryan Spencer will roll over his grave, if he knew that he could have saved his life if he had just popped in the water that spongy, white marshmallow that he kept inside the pocket of his shirt.

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## Overcome by the Strangler Fig

A note to accompany "One Possible Reality"

**Lara Brudno**  
IDH 4007  
Prof. Machonis  
Fall 2002

I fell in love with Zora Neale Hurston's Janie in *Their Eyes Were Watching God*, because I admire her strength to stand by her decisions in her search for true happiness. The quest could have been wrought with regret and self-pity, for every time she left one life, she lost some measure of security. Every decision has its pros and cons, and indecision is not an option in life, because stagnation is equivalent to automatic failure. Janie recognized this, so at every fork in the road she jumped on the path that felt right without hesitation. The reality that she had created for herself allowed her to be free spirited, free from the limiting bonds that society, culture, and family often incite humans to place on themselves. I long to be free of limitations and regrets.

Hurston has opened my eyes and touched my heart during a very difficult period in my life, and fantasy artists Charles Meyers and Irene Christensen (Everglades National Park "artists in residence" -- October 2002) have motivated me to introspect using more than just words. In an effort to express my feelings through visual art, however, I have found the need for more words, so without giving away a concrete definition of my pastel, a general explanation follows.

Each individual creates a reality. Your own reality only exists in your perception, and your perception can change and surely will. Like the growth of a tree, it evolves slowly but surely. Perhaps it is more like the calm aggression of the strangler fig, shrinking your life down to nothing. First, you let it grow on you like a harmless friend; you are so naïve... then one day you realize that not only has it become part of you, it's more than you and you're trapped inside of IT. You've done a good thing though, because by sacrificing your life, you've helped it to grow. You do not need to be independent from it: you need to be a part of something greater than yourself in order to be meaningful. So what does success in life mean? Does it mean that your life is meaningful or does it mean happiness? Can it be both? I suppose that happiness might be a byproduct, but what is important is that you've done the right thing... I want to know what the right thing is... to be yourself and stand as a weak, insignificant, individual, or to be a part of a greater, stronger, thing than yourself? Can you stand inside of such a thing and be happy? I hope so, for HERE, within this strangle hold, I AM SAFE.





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# Showdown in West Palm Beach



**Joseph Bentley**  
IDH 4007  
Spring 2002  
Machonis/Graham

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The history of South Florida resembles, in many ways, the classic Hollywood westerns that are so familiar to us all. South Florida had its freedom and fortune seeking pioneers and assorted eccentric characters. Clashes between the indigenous people and the pioneers were common. And, like the Old West in the movies, South Florida was an exciting but hard to tame land. But unlike Hollywood's depiction of the Old West, the good guys in Florida didn't always wear white hats and the bad guys didn't always wear black. It is much more difficult to discern who the bad guys are and who the good guys are in South Florida history. This holds true to this day.

South Florida history is full of good guys who, when investigated, turn out to be rather shady characters. And in the other direction, there were many apparently bad guys, who in retrospect may not have been so bad after all. Was Ed Brewer the Ed Brewer of Across the Everglades or was he more like the Ed Brewer in Killing Mr. Watson? Was Mr. Watson a totally bad character? Did Henry Flagler create or destroy South Florida with his East Coast Railroad? In order to figure out who the good guys are and who the bad guys are in South Florida history, it is important to think about how attitudes and perceptions of what constitutes good and what constitutes bad have changed. It has been mentioned a few times in class that the slogan "Save the Everglades" means today something quite different from what it meant historically. Eighty years ago "Save the Everglades" was a call to drain, develop and pave over what people saw as a watery wasteland. Those who created plans to do so were, at the time, perceived to be the good guys. Currently, the good guys who fight to "Save the Everglades" are the conservationists, environmentalists and concerned citizens who are on the front lines in the battle against development of the unique wetland. Given the complexity of South Florida history, the people who created it and the change in values and perceptions, it is quite difficult indeed to figure out just who should be wearing the white hats and who should be wearing the black hats.

This dilemma particularly struck me throughout our visit to the South Florida Water Management District's headquarters. Certainly none of the representatives were wearing white or black hats and I kept trying to determine whether the District is a friend or foe in terms of Everglades conservation. One of the things that immediately caught my eye was their motto, "South Florida Water Management District: Protector of the Everglades." My cynical side wondered how the District could refer to itself as "protector of the Everglades" when the agency exists as the current product of a long history of attempts to drain and destroy the entire ecosystem. I became even more skeptical when the spokesperson handed out the slickly designed and packaged folders of information on the District and its activities. The information packets filled with key words such as "balancing", "improving" and "managing" seemed almost like propaganda. The district spokesperson with her sweet nature seemed like the perfect spokesperson. Would she wear a white hat or a black hat? As I saw more of the facility's inner workings I felt a real sadness at the reality of how incredibly altered the contemporary Everglades system is. We have read about the alteration and even discussed it in class several times, but when standing at Pay-Hay-Okee or the Shark Valley observation tower the reality seems not so significant. Employing the Hollywood analogy again, it's a bit like seeing a behind-the-scenes show about a favorite movie...it takes some of the magic away. My sadness evolved into anger at the damage we have done to the Everglades. I felt angry that the District saw itself as a necessary protector of the Everglades.

After wrestling with these feelings for a few days I have found a middle ground. I am still sad and angry when I think about our history of "playing God" with the Everglades. I still feel skeptical towards the

District, though I just can't imagine that the nice spokesperson would be wearing a black hat. But, I have to accept some responsibility myself. I choose to live in South Florida. I use water from the Everglades. I don't want to lose my livelihood because of a flood. I benefit from the work that the District has done and yet I feel a sense of animosity towards it. My conclusion is this: The Everglades has been severely altered in really fundamental ways. It's too late to change the fact. Millions of people now live in South Florida and depend on the water resources of the area. I do believe that the Nutrient Removal Project and Everglades Restoration Project that the District is working on are impressive and commendable. It's hard to assign a white or black hat to the District. It's too complex for that. But isn't everything that involves the Everglades complex?

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