



Park Stories

Current Stories and Events for the National Parks in South Florida, 2005

Hurricanes: Reclaiming Nature in South Florida's National Parks

When faced with the swirling image of a hurricane, you might imagine yourself hunkering down in a concrete bunker or high-tailing it out of town. The thought of crouching behind a sand dune, clinging to a mangrove tree or treading water next to a coral reef to ride out the storm probably sends shivers down your spine (and, is not recommended!). But during a hurricane our human-made structures weather, by far, the worst of the storm while these “fragile” natural features are designed to temper nature’s fury.

While exploring, take time to learn more about the complex effects of hurricanes on South Florida’s National Parks.

Reshaping Communities in Biscayne Bay

The most destructive part of a hurricane is usually not its wind. It’s the storm surge – the swell of water pushed landward by the hurricane’s winds. In August of 1992, Hurricane Andrew pushed a wall of water more than thirteen feet high towards Biscayne Bay. The storm surge overtopped many of the Bay’s Keys – including Elliott and Boca Chita.

Andrew’s storm surge took a shot at a collection of stilt houses that stand on submerged sandbanks north of Boca Chita. This enclave of houses, known collectively as Stiltsville, got its start in the 1930s when its founders were attracted to the fishing prospects of the seagrass beds below. Originally a collection of modest shacks, it grew to include private clubs, such as the Quarterdeck Club and upscale houses.

Hurricanes have slowly disassembled Stiltsville, exposed and vulnerable to the shifting nature of sand and water. Donna, Betsy, and Andrew all took a swipe. Andrew left only seven structures standing. The next direct hit

might obliterate what remains of this part of the Bay’s colorful history. Although hurricanes may eventually be the undoing of Stiltsville, they help preserve its reason for being. Hurricanes temporarily restore the pulse of fresh water needed to maintain healthy seagrass beds which, in turn, support rich fisheries.

Shifting Sands and Mud at the Dry Tortugas

Seventy miles from Key West, the islands of the Dry Tortugas also appear isolated and vulnerable to ravaging storms. But the extensive coral reefs surrounding the seven islands of the Tortugas act to dampen the effects of storm surge, protecting natural harbors amid the islands. It was these harbors and the strategic location that led the U.S. Army to fortify the Tortugas during the 19th century. The thick walls of Fort Jefferson seem

Continued on page 9



The hurricane season in Florida begins in June and goes through the end of November. These storms can be devastating on the human scale, destroying property and taking lives. In the natural world, the storms “just are” and have helped to shape South Florida into the place it is today.

South Florida National Parks...

... protect coral reefs, fragile estuaries, sub-tropical forests and some of the largest natural areas east of the Mississippi River, and preserve a rich human history.

... are home to a variety of temperate and tropical plants and animals that co-mingle nowhere else within the United States.

... provide a wide range of recreational opportunities for visitors and residents.

... are interconnected by water flowing through Florida from Kissimmee to the Keys.

... are special places saved by the American people so that all may experience our heritage.

What’s Inside?

Big Cypress National Preserve ... 2-3

Biscayne National Park ... 4-5

Everglades National Park ... 6-7

Dry Tortugas National Park ... 8

Kids’ Corner ... 9

Hurricanes (continued) ... 9

South Florida National Parks Partners ... 10-11

Endangered Species in South Florida National Parks ... 12

Check out the *South Florida National Parks Trip Planner* for details on park facilities.

Big Cypress National Preserve

Exploring the Backcountry

Article by Reid F. Tillery, copyright 2004



Big Cypress National Preserve

Established in 1974
729,000 acres

Important Information

Mailing Address

HCR 61, Box 110
Ochopee, FL 34141

Phone

Toll-free 24 Hour Emergency
(800) 788-0511

Big Cypress Visitor Center

(239) 695-1201

Big Cypress Hunting Information

(239) 695-2040

Report hunting violations immediately to

(800) 788-0511

Website

www.nps.gov/bicy



National Park Service
U.S. Department of the Interior

South Florida National Parks Guide

is published as a service to park visitors by the Florida National Parks and Monuments Association (FNPMA).

The National Park Service, an agency of the Department of the Interior, was established in 1916 to manage a growing system of national parks. Today, the National Park System consists of more than 380 units. National Parks, National Preserves, Seashores, Monuments, Historic Sites, Lakeshores, Battlefields, and others make up a great repository of national treasures entrusted to the National Park Service. In South Florida, nearly 2.5 million acres of pineland, prairie, tropical hardwoods, mangrove forests, estuaries and coral reefs and historical sites are preserved for this and future generations. Their scientific, recreational, aesthetic and educational values are limitless.

Experience Your America

The young cottonmouth lay sunning himself in the trail dead ahead. Coincidentally, I had stopped only 3 feet short to adjust my gear when I caught sight of him in my peripheral vision. Except for that delay, I might have traipsed right over the venomous snake, perhaps receiving a nasty bite in the process.

It was a sunny, warm February day and we were deep in the Big Cypress Swamp — a 2,400-square-mile wilderness, an integral part of the Everglades itself, located in the center of otherwise heavily populated south Florida. The name Big Cypress refers to the size of the swamp and not to the trees within it. A drive along the stretch of Interstate 75 called Alligator Alley or along US Highway 41, also known as the Tamiami Trail, between Naples and Miami offers some idea of the vastness of this great wilderness. Within its boundaries are wide and soggy sunlit prairies, forests of slash pine and palmetto, great clusters of cypress trees arranged in circular domes or in lengthy strands, and here and there a hardwood hammock that provides welcomed dryness underfoot and perhaps a suitable place to camp for the night.

Within the Big Cypress Swamp is the Big Cypress National Preserve, 729,000 acres, most of which were set aside by federal legislation in 1974 after a public outcry went up against a huge jetport that was to be built in the area. Thanks to that legislation, the area escaped development and remains wild today. In addition to other recreational activities, hunting and off-road vehicles (ORVs) are allowed in the preserve.

My friend, Don Richards, and I were on a 5-day backpacking trek through this magnificent wilderness. It was the sprawling wildness of the place that attracted us to it. Although the Florida Trail runs through the region, we had purposefully decided to avoid the established footpath, choosing instead the adventure of navigating ourselves cross-country through the great swamp. So, having secured the proper backcountry permit, with maps, compass, and GPS in hand, we entered the swamp from the Concho Billy Trail on Turner River Road and made our way to the southeast, eventually turning eastward and

continuing until we hit Monument Road, the swamp-buggy trail which led us the final 7 kilometers back to civilization. Our trip ended at Monument Lake Campground on US Highway 41.

Since it was the winter dry season, water levels within the preserve were not too high. The highest water we encountered was thigh deep and that was in only one spot where we walked through the deep water for perhaps fifty meters. Normally, we slogged through damp prairies or ankle to knee-deep through cypress swamps. Jungle boots, with their drain holes which allow water to escape with each step, proved to be just the right footwear for the trip. Had we been there during the summer rainy season, the situation likely would have been a lot different. In the summer, water levels tend to be higher and the mosquitoes, which were present but not in great numbers, would have been much worse. Plus, it would have been hot and humid. For these reasons, many people avoid trips through here in the summertime.

Do much walking through Big Cypress and you'll soon learn to read trees and plants for clues as to water levels. Cypress trees mean wet and swampy. Alligator flag, a wetland plant with large, spearhead-shaped leaves, signals deep

water, the favorite haunts of big alligators. Pine trees indicate relatively dry land. And the majestic sabal palm, Florida's official state tree, is always a welcomed sight for it's an almost sure sign of high, dry ground. As the afternoon shadows lengthened we would scan distant treetops for pines and palms in search of a dry place to pitch our tents.

During our daytime travels, we flushed several wild turkeys and observed the distinctive white-flag tails of deer as they bounded across the prairies ahead of us. We saw only 3 snakes, a black racer and a small water snake, both of which are harmless and which quickly slithered off, as well as the venomous cottonmouth water moccasin mentioned earlier. The distinctive 45-degree tilt of the cottonmouth's head, as well as the black stripe running by the eye and alongside the head provided an instant positive identification. After observing it a short while, we snapped its photo, then left it to continue sunning while we went on our way. We kept watch, hoping to glimpse a rare Florida panther, of which only 80 - 100 remain. But these creatures are reputed to be shy and elusive. If they were present at all, they certainly lived up to their reputation, for we never saw so much as a panther track, much less a panther.



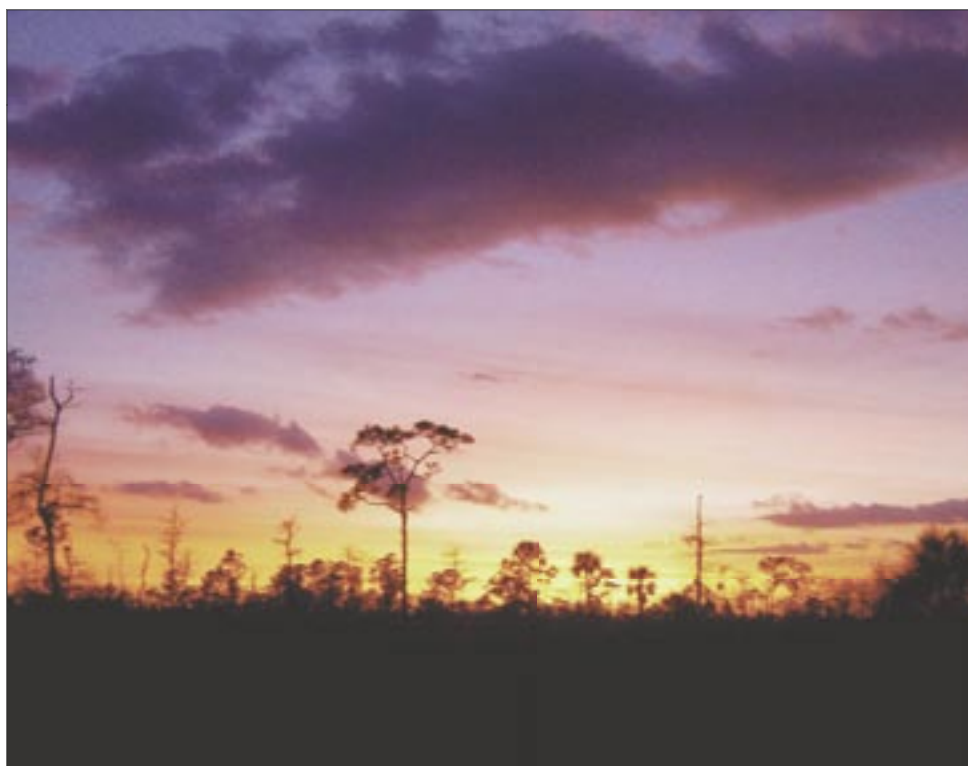
The author pauses for a moment while exploring the Big Cypress backcountry. The cardinal bromeliad in the foreground is a common sight in many areas of the preserve. Photo by Don Richards.

Some of the more interesting plants included the beautiful, flowering bromeliads, which provided sharp color contrasts to the winter grayness of the cypress swamps and the splashing white spider lilies which occasionally adorned the prairies. Since they normally bloom in summertime, we didn't see a single ghost orchid — that most delicate flower, noted for its ethereal air of passion and intrigue, and made famous in Susan Orlean's captivating book *The Orchid Thief*.

The sunsets lit up the western horizon in a great red glow and the evenings were usually starry and magnificent. Most nights we were entertained by choruses of hoot owls, each one seemingly bent on outdoing the other in making weird noises. Deep-throated sounds of pig frogs and alligators from nearby cypress swamps lulled us to sleep in the dark of the long nights. Within this extensive, wild remoteness, the flashing lights of jets thundering by in the night sky were dissonant reminders of the heavily populated regions which lay on the coasts to either side of us.

The images often associated with the Sunshine State are of extravagant theme parks, palm-lined boulevards, and crowded sandy beaches. While these images are accurate, there is yet another Florida, a wild Florida of untamed natural beauty. Big Cypress National Preserve is part of this wild Florida, and remains a priceless legacy one hopes will be passed on for generations to come.

A Florida native originally from Palm Beach County, Reid Tillery grew up in Pahokee, in the northernmost part of the Everglades region. His love and respect for the outdoors was instilled early as a result of youthful adventures throughout the great wild areas of south Florida. He has authored a soon-to-be-released book Surviving the Wilds of Florida. For the past 21 years he has lived in Melrose, Florida where he currently resides with his wife and 17-year-old son.



Spectacular sunsets are one of the many benefits that are enjoyed by those who spend longer periods of time in Big Cypress National Preserve. Venturing into remote areas of the preserve allows the visitor the opportunity to see rare Florida plants and perhaps a glimpse of seldom-seen animals like Florida panthers and black bear. Photo by Reid F. Tillery.

Preparation and Safety

Anyone planning a trip should know Big Cypress is remote. Be prepared. Become familiar with how to use a map and compass. Topographic maps of the area can be purchased at sporting goods stores in the area, and through several on-line sources. Leave a trip itinerary, which includes your expected return date, with friends or family. If you do not return at the anticipated time, provide them with NPS phone numbers so that they can contact rangers. Be prepared for a variety of unexpected events such as changes in weather, and always plan to have food and water for one or two days more than you expect to be in the backcountry. Good, supportive boots are a great help in such spots where it would be easy to twist an ankle.



Discover More With Florida National Parks and Monuments Association

Related books on this topic that can be found at park bookstores or at www.nps.gov/ever/fnpma:

SOUTHWEST FLORIDA'S WETLAND WILDERNESS: Big Cypress & Ten Thousand Islands (#1039) by J. Ripple ... Explore the natural history of the diverse and beautiful Big Cypress Swamp and 10,000 Islands region. Features Clyde Butcher black & white photography. 74 pp., paper. \$16.⁹⁵

ALONG THE FLORIDA TRAIL (#1010) by S. Friend... The first large format book to chronicle the Florida Trail on its journey northward. Featuring 140 stunning full-color scenic photographs, insightful journal-style trail vignettes, and information on how to help support the Florida Trail. 112 pp., paper. \$24.⁹⁵

Big Cypress Ranger-led Activities Jan. - April 2005

Big Cypress Activities	S	M	T	W	T	F	S
Kirby Storter Boardwalk Strolls	X			X			
Swamp Walks	X	X					X
Canoe Trips	X						X
Campfire Programs						X	X
Nature Notes at H.P. Williams Picnic Area				X			X

Kirby Storter Boardwalk Stroll

Wednesday at 9:00 a.m. and Sundays at 1:00 p.m. Join a Ranger or a Big Cypress Volunteer for this 1 mile leisurely stroll through sawgrass prairie and cypress strand habitats. Bring binoculars, water and insect repellent. 1 hour. Accessible. Reservations recommended. Meet at the boardwalk parking area on US 41.

Swamp Walks

Discover what's out there! This is a great way to experience the swamp! Cypress knees and sawgrass make long pants necessary. Wear sturdy shoes that you can get wet and muddy. Bring a change of clothes, including shoes, for your ride home.

Approximately 2 hours. Reservations required. Meet at Oasis Visitor Center. Saturdays at 10:00 a.m. and Sundays and Mondays at 1:00 p.m.

Canoe Trips

We'll provide canoes and equipment or you may bring your own. These trips vary by weather, water level, tide and ranger's choice of location and duration. Knowing canoeing basics is helpful. Limited to 10 canoes. Approximately 4 hours. Reservations required. Saturdays and Sundays at 9:30 a.m.

Campfire programs

Fridays and Saturdays at 7:00 p.m. Topics will vary by ranger's choice. Bring a lawn chair and insect repellent. No need to make reservations, just drop on by the Monument Lake Campground.

Nature Notes at H.P. Williams Picnic Area

Wednesdays and Saturdays at 2:00 p.m. Join a Ranger or a Big Cypress volunteer at H.P. Williams picnic area for a Gator Chat or Fancy Feathers Talk. No reservations required.

Some programs require reservations. Other activities are also offered, visit the Oasis Visitor Center or call (239) 695-1201 for details. All activities are free and reservations are accepted up to 14 days in advance of the activity date. Schedule subject to change.

Biscayne National Park

Talking Trash: Marine Debris in Biscayne National Park...and Beyond



Kodak/NPS Photo by Neil Montanus

Established in 1968 as Biscayne National Monument; rededicated and enlarged as Biscayne National Park in 1980. 173,000 acres

Important Information

Mailing Address

9700 SW 328th St.
Homestead, FL 33033-5634

Phone

Dante Fascell Visitor Center
(305) 230-PARK
24 Hour Emergency
(305) 247-7272
Toll-free 24 Hour Emergency
(800) 788-0511

Concessions

Biscayne National Underwater Park, Inc.
(305) 230-1100

Website

www.nps.gov/bisc

Biscayne National Park Ranger Gary Bremen has an odd collection. Whenever he walks the park's beaches and shorelines he keeps any unusual trash he finds. The diversity of marine debris that washes ashore, he's discovered, is impressive. Some of the items Gary has collected include bottles from such far away places as Singapore, South Africa, and Argentina (one of his favorites is a Ukrainian vodka bottle), a can of insect spray from Greece, and a pair of voodoo dolls immersed in a jar of honey. Now word of Gary's trashy treasures has spread among Biscayne employees. Just last week one of the ranger's kids brought in a six-pack of Turkish water bottles.

While it takes a certain creative instinct to be stimulated by marine debris, Ranger Bremen will be the first to tell you that very little else about the topic is uplifting. Once you've cherry-picked out the "good stuff"—a bottle with Cyrillic print here and a googly-eyed plastic kids' toy there—all you have left is unsightly, unsanitary garbage...and lots of it.

Below is the top ten list of items collected worldwide during International Coastal Cleanups between 1996-2000:

6.4 million cigarettes & cigarette butts, 3.7 million bags, 2.7 million caps & lids, 2.6 million food containers & wrappers, 2.3 million cups, plates, forks, knives, spoons, 1.3 million plastic beverage bottles, 1.2 million glass beverage bottles, 1.2 million straws & stirrers, 1.1 million beverage cans, and 700,000 pieces of rope.

Biscayne National Park receives its share. One day last September maintenance employee Fred Torres collected a garbage can-sized bag of trash along one ten-foot stretch of mainland shoreline extending some 50 feet inland. A few moments with a pocket calculator revealed that enough trash to fill roughly 7400 bags litters the park's 14-mile mangrove shoreline. The ocean side of the islands, such as Elliott and



Monofilament recycling bins in Biscayne National Park help protect wildlife from accidental entanglement.



During the 2004 Biscayne Bay Cleanup 201 volunteers collected about 800 bags of trash in Biscayne National Park in four hours.

Old Rhodes Keys, is even more densely littered; it would be reasonable to double the above number of bags for the entire park.

Marine debris is a global problem—and it can appear in some pretty unexpected places. Researchers have reported finding pieces of plastic in the stomachs of seals...in Antarctica!

Where does all this garbage originate? Some comes from land and some comes from sea. Land sources include agricultural areas, sporting and festival events, and beachgoers. Marine sources include oil and gas rigs plus offshore vessels, ranging in size from recreational boats to huge container ships.

For centuries it was considered acceptable to toss trash from ships...and it still occurs today. A bottle made in Europe, for example, probably didn't drift here from a Mediterranean beach: it's far more likely that it was dropped from a European ship passing along the Florida coast. While International treaties and U.S. laws passed in recent decades prohibit the dumping of most types of trash, sadly, such measures are all-too-often ignored.

Marine debris leaves its diabolical mark in many forms. In addition to the obvious aesthetic toll taken on coastal areas, marine debris has major economic ramifications. Beachgoers are more inclined to visit—and spend their money at—clean beaches than “trashed” beaches. Orange County, California taxpayers spend about \$350,000 annually to keep their beaches free of debris.

Marine debris also threatens human health. Diapers, syringes, and broken glass are just some of the items that pose major health hazards when they wash ashore.

Finally, wildlife is seriously impacted by marine debris. All kinds of animals, including birds, sea turtles, fish, and marine mammals, mistake plastic for food. This can give them a false feeling of being full, resulting in starvation.

The most insidious threat to wildlife is monofilament fishing line, which can entangle animals, eventually cutting into flesh

and resulting in infection, loss of limbs and strangulation. From 1980-1999, one in every five manatee rescues resulted from monofilament entanglement.

Fortunately, people are just as good at problem solving as they are at wreaking havoc. Biscayne National Park works in partnership with several organizations to host two annual coastal cleanups: the Biscayne Bay Cleanup in April and the International Coastal Cleanup in September.

Recently, monofilament fishing line collecting bins were installed at Biscayne National Park and nearby county parks, the first of their kind in Miami-Dade County. Volunteer groups remove the line and ship it to the Berkley Pure Fishing Company in Iowa, where it is melted down and used to make tackle boxes, plastic toys, and other items.

The most important solution to the marine debris problem is prevention through awareness and education. From the sunset-gazing tourist to the captain of an off-shore freighter, a change in attitude makes all the difference. . . .

Imagine the year is 2050. The place is an isolated beach on Elliott Key. A 300-pound loggerhead turtle lumbers ashore to lay her eggs. Years before an obstacle course of bottles, plastic bags, and rope would have impeded her progress. But now

the only “debris” consists of mangrove seedlings, sea beans, and marine grasses. At some point humanity had collectively turned a corner. No longer was it merely illegal to discard marine debris: it had become morally unacceptable.

- If you are interested in participating in a coastal cleanup in Biscayne National Park call Jorge Acevedo at 305-230-1144 Extension 3035. •



Discover More With Florida National Parks and Monuments Association

Related books on this topic that can be found at park bookstores or at www.nps.gov/ever/fnpma:

FLORIDA KEYS - NATURAL WONDERS OF AN ISLAND PARADISE (#1168) by J. Ripple... Explores the extraordinary beauty of this ecological treasure and the many environments found there (pinelands, mangrove forests, hardwood hammocks, seagrass beds, fresh & saltwater wetlands) ¹²⁸ pp., paper. \$^{12.95}

THE SHELL BOOK (#1409) by S. Romashko... A very popular book to more than 300 sea shells found in the south Atlantic, Florida, Gulf States, Bahamas, and the Caribbean. 64 pp., paper. \$5.95

Biscayne National Park Ranger-led Activities Jan. - April 2005

Dante Fascell Visitor Center

Tour the park’s visitor center exhibits, videos, bookstore and gallery. Open daily, 9:00 a.m. to 5:00 p.m.

The Spectrum of Life

Biscayne’s mangrove shoreline, estuarine bay, isolated keys, and coral reefs are all introduced in this 12-minute video. Shown daily upon request between 9:00 a.m. and 4:30 p.m.

Ranger’s Choice

From porch talks to short walks, learn about Biscayne’s diverse resources with a park ranger.

Boat Tours

Guided glass-bottom boat tours, island and sunset trips, snorkling and scuba diving excursions are all great ways to experience Biscayne. Call (305) 230-1100 for more information and to reserve your trip.

Schedule subject to change.

Canoe and Kayak Trips

Take a two-hour journey along the mangrove shoreline. Provide your own boat, or rent one at the discount rate of \$15.95. Call (305) 230-1100 to reserve a canoe or kayak.

Family Fun Fests

Three hours of hands-on activities for kids and kids-at-heart! Each month features a different theme. Complete them all and you’ll earn a special button!

Gallery Exhibits

National Parks have inspired artists for over a century. Changing exhibits in our visitor center gallery highlight the work of contemporary artists who continue that long tradition.

Discovery Series

Discover a few of our hidden resources in this free adult lecture series held at the Coconut Grove Sailing Club, 2990 South Bayshore Drive Miami, Florida.

Biscayne Activities	S	M	T	W	T	F	S
The Spectrum of Life	X	X	X	X	X	X	X
Boat Tours	X	X	X	X	X	X	X
Ranger’s Choice	Check at Visitor Center for times and location.						
Gallery Exhibits	X	X	X	X	X	X	X
Family Fun Fest (First Sunday of each month through May.)	X						
Canoe/Kayak Trips (2nd & 4th Saturdays, monthly through April)							X
Discovery Series (2nd Wednesday of each month through April.)				X			

Biscayne’s Dante Fascell Visitor Center exhibits offer you the opportunity to explore mangrove estuaries, rich seagrass beds, and vibrant coral reefs of the park’s underwater world — from dry land.



Everglades National Park

The Geography of Hope: Celebrating the Fortieth Anniversary of the Wilderness Act



Established in 1947
1,508,570 acres

Important Information

Mailing Address

40001 State Road 9336
Homestead, FL 33034-6733

Phone

Headquarters

(305) 242-7700

Everglades 24 Hour Emergency

(305) 247-7272

Toll-free 24 Hour Emergency

(800) 788-0511

Flamingo Visitor Center

(239) 695-2945

Gulf Coast Visitor Center

(239) 695-3311

Shark Valley Visitor Center

(305) 221-8776

Key Largo Ranger Station

(305) 852-0304

Campground Reservations

(800) 365-CAMP

Concessions

Everglades National Park Boat Tours and
Canoe Rentals in *Everglades City*

(239) 695-2591,

Flamingo Lodge, including the marina,
boat tours, and rentals

(239) 695-3101

For reservations only

(800) 600-3813

Shark Valley Tram Tours

(305) 221-8455

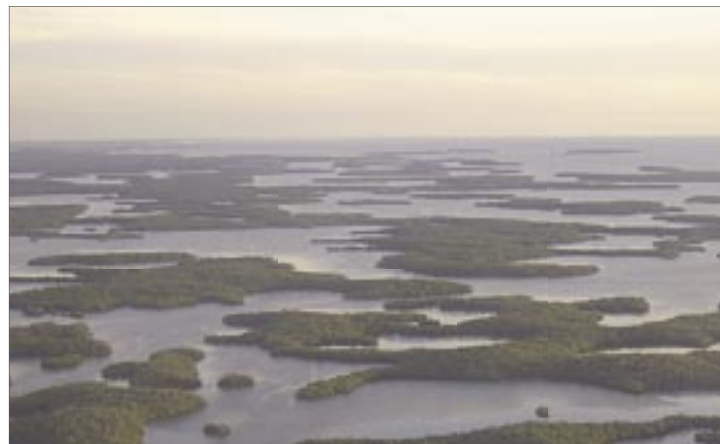
Website

www.nps.gov/ever

Throughout the United States wilderness areas contain scenery resplendent with great majesty and inspiration, from the jagged, snow-frosted peaks and glaciers in Lake Clark National Park and Preserve in Alaska, to the sunset-painted deserts of Petrified Forest National Park in Arizona, to the shimmering waters and savannas of the Everglades. The Everglades' beauty is perhaps more subtle than some. Its wild grandeur is more akin to lulling guitars than crashing cymbals. Yet, contrasting so intensely from the congestion surrounding its western and eastern borders, the park's quiet, vast, open space is a haven of peace and reflection for people from both next door and around the world. Here, the artist in us all is stirred. Here, the child in us all seeks to play and explore. Here, the wonderer in us all finds

“an area where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain.” Roads and structures cannot be built in designated wilderness, and motorized vehicles and mechanized equipment cannot be used. This is the highest level of conservation protection for federal lands.

Today, the Wilderness Act protects more than 106 million acres of America's wild lands. The National Park Service is responsible for the stewardship of more wilderness than any other Federal land management agency—44 million acres of wilderness in 46 national parks, and 53 percent of the National Park System lands. Even so, wilderness areas are special places today because they are so increasingly rare. Everglades Na-



The Marjory Stoneman Douglas Wilderness provides an escape from the ever-increasing urban areas of South Florida.

tional Park is one of those special places. Just next door to one of the country's fastest-growing urban areas, the Marjory Stoneman Douglas Wilderness (MSD Wilderness) within Everglades National Park protects almost 1.3 million acres of sawgrass prairie, hardwood hammock, cypress dome, mangrove forest, and waters. The MSD Wilderness, named

in honor of the park's great friend and defender, begins just off the main park road on either side and stretches from Florida Bay to the northern 10,000 Islands. It is the largest wilderness area east of the Mississippi River—a vast green oasis of solitude and serenity.

September 3, 2004 marked the fortieth anniversary of the establishment of the Wilderness Act. The creation of the Act was arguably one of the most important preservation milestones in the history of the United States. The lands it protects are perhaps the greatest gift one generation has ever given to the future.

Through the Wilderness Act, Congress recognized the intrinsic value of wild lands. Wild lands have human and ecological values that are vital to the nation's—indeed, the planet's—well-being. The Wilderness Act created the national Wilderness Preservation System and recognized wilderness as

The value of wilderness is not just in its scenery and its solace. Wilderness areas protect open space, watersheds, natural soundscapes, night skies, and biodiversity. Continuing to protect areas as large and intact as possible is vital to the planet's survival. The MSD Wilderness provides many tangible ecological benefits:

- It serves as critical habitat and refuge for wildlife, including rare creatures like the Florida panther, smalltooth sawfish, and snail kite. Its estuaries provide shelter to young fish and shrimp upon which the commercial and recreational fishing industries depend.
- It protects a vital portion of the southern Florida watershed, storing fresh water and preventing the intrusion of salt water from the ocean into the aquifer that provides our drinking water.
- It improves air quality through the filtering action of plants.
- It is a learning laboratory for scientific activities that address natural systems and processes. Over fifty years of scientific research in the MSD Wilderness has helped us better understand the intricate relationships and balances necessary for the future survival of the Everglades.

Whether or not we choose to actually visit them, wild places are important to us even as ideas. As the author Wallace Stegner wrote in eloquent defense of wilderness in 1962, “We simply need that wild country available to us, even if we never do more than drive to its edge and look in. For it can be a means of reassuring ourselves of our sanity as creatures, a part of the geography of hope.”

Take time during your visit to celebrate wilderness! Whether you simply enjoy the views while driving the main park road or paddle deeply into the wilderness waterway, this land is yours. Enjoy!



Discover More With Florida National Parks and Monuments Association

Related books on this topic that can be found at park bookstores or at www.nps.gov/ever/fnpma:

EVERGLADES NATIONAL PARK IMPRESSIONS (#1103) by T. and T. Stack. . . Everglades National Park, an International Biosphere Reserve and World Heritage Site, is complex and fragile. There is nothing like it anywhere else in the world! A beautiful photographic exploration of the park's 1.5 million-acre protected biological reserve--its cypress and mangrove swamps, sawgrass wetlands, wading birds, alligators, and snakes. 80 full-color photographs. 80 pp., paper. \$9.95

Everglades National Park Ranger-Led Activities

Flamingo Area (239) 695-2945 Canoe Trip** (4 ½ hours, fee charged)

Reservations required. Meet the ranger at the Flamingo Visitor Center at 7:30 a.m. Be prepared to drive to the canoeing site. Call the Flamingo Visitor Center for additional information. 239-695-2945. Daily, 4 hours

Naturalist Knapsack (1/2 hour)

From manatees to mosquitoes, discover what makes the Everglades like no other place on earth. Meet at the benches below the Flamingo Visitor Center at 3:00pm.

Early Bird Walk (90 minutes)

Join us for an easy stroll around Eco Pond. Come prepared for mosquitoes. Meet at 8:00 a.m. at Eco Pond Thursday through Sunday.

Wet Walk** (3 hours, fee charged)

Experience the Everglades from the middle of it! Be prepared to drive up the road. Wear lace-up shoes and long pants that can get wet and muddy. Reservations recommended. Call or signup at the Flamingo Visitor Center. Thursday through Sunday. (As long as there is sufficient water to slog.)

Evening Program (1 hour)

Birds, reptiles, water, and music! Meet at the Flamingo campground amphitheater at 7:30 p.m. for a ranger's choice of topics. Friday and Saturday.

Gulf Coast Area (239)695-3311

Boat Tours *(1 ½ hours, fee charged)

Discover the Ten Thousand Islands of the Gulf Coast, where the land meets the sea. Look for dolphins, ospreys and wading birds. One and a half hour tours offered every hour on half hour, daily from 9:00 am to 4:30 pm. Boat tours are narrated by Ranger or Boat Captain.

Eyes on the Everglades (30 minutes)

Join a Park Ranger for a half hour talk on Everglades National Park's ecology, history, and environmental issues. Meet at the picnic tables under the chickee. Wheelchair accessible. 1:00 p.m. daily

Canoe Explorations (4 hours)

Come explore the waters of Everglades National Park! With a Ranger as your guide, take a half day paddle through the Ten Thousand Islands. We'll look for wildlife, paddle through mangroves and learn about the park's natural and cultural history. If tide and weather allow, trip may include a walk on an island. Reservations required. Easy to moderate. Bring your own canoe/kayak or rent one.

Everglades Evenings (45 minutes)

There are "Ten Thousand" things that make the Gulf Coast special – a clear night of dazzling stars, a fascinating tale of the area's human and natural history, and a provoking look at the challenges of the future. Call or visit the Gulf Coast Visitor Center to find out what's happening each week! Wheelchair

accessible. Fridays. Call for locations.

History Bike Hike (2 hours)

Learn about the intricate history of Everglades City and its surrounding areas. Bike helmets recommended; required for participants 16 and younger. Bring your own bike or rent one. Reservations recommended. Jan. 13, 15, 27 & 29. Feb. 10, 12, 24, & 26. March 10 & 12.

Full Moon Canoe Trip (3 hours)

Leave the road behind as you paddle into the Ten Thousand Islands as the sun sets and the night takes life under the light of a full moon. Reservations required. Offered only on Tues. 1/25; Fri. 2/25; Fri. 3/25

Royal Palm Area

Three-In-One Bike Hike** (2 ½ hours, fee charged)

Explore three 'glades habitats by bicycle – including hammocks, glades and pinelands, home of the Florida panther! Bike, helmet and water provided (10 person limit). NOTE: Purchase tickets at the Coe Visitor Center or Long Pine Key Campground at least 30-minutes prior to program. 10:00 a.m. daily.

Everglades Wet Walk**

(2 ½ hours, fee charged)

Get your feet wet on this off-trail hike into some of the park's most beautiful settings, like the interior of a cypress dome or a 'gator hole, which can only be seen this way. Wear lace-up shoes, socks and long pants that can get muddy. Walking stick and water provided (20 person limit). NOTE: Purchase tickets at the Coe Visitor Center or Long Pine Key Campground at least 30-minutes prior to program. 2:00 p.m.

Anhinga Amble (1 hour)

Anhingas, alligators, turtles and gar can all be seen on this guided tour of the Anhinga Trail. Meet at the Royal Palm benches. Wheelchair accessible

'Glades Glimpse (20 minutes)

Learn about hurricanes, 'gators, panthers or other Everglades tidbits. Meet at the Royal Palm benches. Wheelchair accessible

Mahogany Hammock Walk (1 hour)

Experience one of the most beautiful and pristine tree islands in the Everglades! Meet in the Mahogany Hammock parking lot, halfway between Royal Palm and Flamingo. Wheelchair accessible

Starlight Talk (50 minutes)

Meet under the stars at the amphitheater located at the south end of Long Pine Key Campground. Check bulletin boards and visitor centers for the night's topic. Flashlights recommended. Wheelchair accessible (starts 12/31/04)

Everglades Activities	S	M	T	W	T	F	S
Flamingo Area, 12/26/04-04/02/05							
Canoe Trip** 7:30 a.m.	X	X	X	X	X	X	X
Naturalist Knapsack 3:00 p.m.	X	X	X	X	X	X	X
Early Bird Walk 8:00 a.m.	X				X	X	X
Wet Walk** 1:30 p.m.	X				X	X	X
Evening Program 7:30 p.m.						X	X
Gulf Coast, 12/27/04 – 04/02/05							
Boat Tours* (various times)	X	X	X	X	X	X	X
Eye on the Everglades, 1:00 p.m.	X	X	X	X	X	X	X
Canoe Trips (routes vary) 10:00 a.m.	X			X			X
Everglades Evenings 7:00 p.m.						X	
Bike Hike (call for dates) 10:00 a.m.							
Full Moon Canoe 6:00 p.m.	Offered 1/25, 2/25, 3/25 only						
Royal Palm Area, 12/27/04 – 4/02/05							
Three-In-One Bike Hike** 10:00 a.m.	X	X	X	X	X	X	X
Everglades Wet Walk** 2:00 p.m.	X	X	X	X	X	X	X
Anhinga Amble 10:30 a.m.	X	X	X	X	X	X	X
'Glades Glimpse 1:30 p.m.	X	X	X	X	X	X	X
Mahogany Hammock Walk 3:00 p.m.	X	X	X	X	X	X	X
Starlight Talk 7:30 p.m.					X	X	
Shark Valley, 12/20/04 – 04/02/05							
Tram Tours* (various times)	X	X	X	X	X	X	X
Shark Bytes, 2:15 p.m.	X	X	X	X	X	X	X
Slough Slogs** 1:00 p.m.							X
Full Moon Bike Hike ** 5:30 p.m.	1/22, 1/23, 2/24, 3/25						

Shark Valley (305)221-8776

Tram Tour* (2 hours)

Venture into the heart of the Everglades with a concession or park naturalist. Trams depart on the hour. Fee charged. (305)221-8455.

Slough Slogs (wet hikes)** (3 hours, fee charged)

Discover the magic of exploring with wet feet!

Shark Bytes (30 minutes)

Join a park ranger for a "hands-on" talk about
 ** Denotes fee-based ranger-led activities. Check at area Visitor Centers for fees and reservations.
 * Concession fees apply. Program may be led by park ranger, volunteer or concession naturalists



Dry Tortugas National Park



Dry Tortugas National Park

Established in 1935 as Fort Jefferson National Monument; rededicated as Dry Tortugas National Park in 1992. 64,700 acres

Information Inquiries

40001 State Road 9336
Homestead, FL 33034-6733
(305) 242-7700

Website

www.nps.gov/drto

Fort Jefferson — Gibraltar of the Gulf

Why build a fort in the middle of nowhere? Fort Jefferson was built to protect one of the most strategic deepwater anchorages in North America. By fortifying this spacious harbor, the United States maintained an important “advance post” for its ships patrolling the Gulf of Mexico and the Straits of Florida. Nestled within the islands and shoals that make up the Dry Tortugas, the harbor offered ships the chance to re-supply, refit, or simply seek refuge from storms.

“A naval force designed to control the navigation of the Gulf could not desire a better position than... the Tortugas.”

—Commodore John Rogers, 1829

The location of the Tortugas along one of the world’s busiest shipping lanes was its greatest military asset. Though passing ships could easily avoid the largest of Fort Jefferson’s guns, they could not avoid the warships that used its harbor.

In enemy hands, the Tortugas would have threatened the heavy ship traffic that passed between the Gulf Coast (including New Orleans, Mobile and Pensacola) and the eastern seaboard of the United States. It could also serve as a potential staging area, or “springboard,” for

enemy forces. From here they could launch an attack virtually anywhere along the Gulf Coast.

A Powerful Deterrent

Poised to protect this valuable harbor was one of the largest forts ever built. Nearly thirty years in the making (1846–1875), Fort Jefferson was never finished nor fully armed. Yet it was a vital link in a chain of coastal forts that stretched from Maine to California. Fort Jefferson, the most sophisticated of these, was a brilliant and undeniable symbol that the United States

wanted to be left alone. Though never attacked, the fort fulfilled its intended role. It helped to protect the peace and prosperity of a young nation.

During the Civil War, Union warships used the harbor in their campaign to blockade Southern shipping. The fort was also used as a prison, mainly for

Union deserters. Its most famous prisoner was Dr. Samuel Mudd, the physician who set the broken leg of John Wilkes Booth.

Abandoned by the Army in 1874, the fort was later used as a coaling station for warships. In 1898, the USS *Maine* sailed into history, departing the Tortugas on its fateful mission to Havana, Cuba. Though used briefly during both world wars, the fort’s final chapter as “Gibraltar of the Gulf” had long since closed.



Once a formidable barrier deterring entry into the Gulf of Mexico by enemy ships, today the Fort serves as a centerpiece amid crystalline waters and protected coral reefs enjoyed by thousands of visitors each year.

Guy Bradley: A Sacrifice Remembered

One hundred years ago, Audubon warden Guy Bradley was killed by plume hunters illegally taking wading birds from a rookery near Flamingo. His death galvanized the conservation movement in the United States. Bradley was the first American martyr for wildlife conservation; unfortunately, he was by no means the last. Three of the first five Audubon wardens were murdered. What were these men trying to protect and why were the stakes so high?

In the late 1800’s and early 1900’s ladies never left home without wearing a hat. Large hats ornately decorated with feathers, plumes, and even entire birds, were considered the height of fashion. Birds—from whole hummingbirds to the heads of owls—could be seen bobbing on the heads of women across America. The showy breeding plumes of egrets, herons and other plume-bearing birds were especially prized. During the nesting season, egrets grow long, gorgeous feathers called “aigrettes.” These became so valuable that a single egret feather could bring \$5 and a whole wing could bring \$50. In an era when groceries cost \$5 a month and \$10 would cover a month of rent, the allure of “plume money” was too much to resist.

The largest concentration of plume birds was found in southern Florida. The plume hunters targeted their prey at roosts, where they killed nesting birds for their breeding plumage. One man could kill and process a hundred birds in a day and make more money in a month than bankers made in a year. When adult birds were killed, nestlings were left to die. In one fell swoop, two generations of birds were slaughtered to the whim of fashion.

Fortunately, conventional attitudes towards nature as an endless bounty for plunder were changing. Many were outraged by hats adorned with dead birds. Harriet Hemenway, a pillar of Boston society, was appalled



Audubon warden Guy Bradley

to read about the bloody slaughter that supplied the fashion. Hemenway and her cousin Minna Hall invited prominent women and men to afternoon teas to discuss the atrocity and urge them to boycott the style. The first Audubon Society was “born” out of those meetings as a way to protect the birds. Societies spread across America.

In 1900, with the support of Audubon members, the U.S. Congress passed the Lacey Act, the nation’s first wildlife protection law, banning the interstate shipment of any birds killed in violation of state laws. This gave the Audubon Society its first effective weapon against the plume hunters. In 1902, the Audubon Society hired Guy Bradley as their first warden. On a calm morning on July 8, 1905, Bradley was shot and killed in the line of duty after rowing his dinghy into Florida Bay to arrest a young man he witnessed shooting into a rookery.

He On March 19, 2005, join staff from Everglades National Park, the U.S. Fish and Wildlife Service, and Florida Audubon for a day in the park commemorating Bradley’s sacrifice and the resulting legacy of conservation we enjoy today.



Discover More With Florida National Parks and Monuments Association

Related books on this topic that can be found at park bookstores or at www.nps.gov/ever/fnpma:

DEATH IN THE EVERGLADES—The Murder of Guy Bradley, America’s First Martyr to Environmentalism (#1078) by S. B. McIver. 187 pp., hardbound. \$24.⁹⁵

Kids' Corner

Wildlife Watch

The wetlands of South Florida were once considered worthless and many wanted them drained and destroyed. Today we know that the water flowing through the wetlands is important to all life in the area, including us.

As you explore the national parks you are sure to discover much of the wildlife that depends on this flow of water. Look carefully and have a keen eye! As you see the animals to the right, check them off. How many did you find? In what habitat did you find them?

For more activities ask for a **Junior Ranger Book** at park visitor centers.



Lubber Grasshopper



American Alligator



Roseate Spoonbill



Rock Beauty



Zebra Butterfly



Anhinga



Armadillo



Wood Stork



White-tailed Deer

Hurricanes, cont. from page 1

an ideal place to weather a hurricane. The Fort, one of the largest stone masonry structures in the western hemisphere, shelters resident park employees during even the most severe storms. But the fort cannot protect the sand and shell keys that surround it. Hurricanes and storms reshape these islands like a rake reshaping a sand trap. Some islands rise from the sea, while others disappear.

The islands surrounding the Fort – Garden, Bush, and Long Keys – were once three separate islands. By 2002, storms had created sand bridges that made them one. In 2004, Hurricane Charley destroyed the sand and shell ridge between Garden and Bush Keys, making these two islands separate once again and creating a moat of water between the Fort and Bush Key. Without the periodic overwash of sand from hurricanes, these fragile islands may become skinnier and skinner until they disappear altogether. Valuable nesting habitat for sea birds like the sooty tern and brown noddy, which depend on the isolated location, would be lost.



Left: Forests of South Florida have adapted to tropical storms and hurricanes over centuries. Tropical hardwood hammocks, pine, mangrove and cypress forests are cleared of dead and dying vegetation by the storms, which allows for new growth. Right: People have not adapted as well to the storms that sweep across the peninsula. It is difficult to say if future hurricane seasons will bring a greater number of storms, or perhaps storms of greater intensity.

The Flushing of Big Cypress and the Everglades

The big flat expanses of Big Cypress and the Everglades may also seem too exposed to survive the ravages of 150 mile per hour winds and bucketfuls of rain, but hurricanes actually provide a vital service. Acting much like a cleansing forest fire, hurricanes flush out clogged waterways, recycle nutrients and allow for regeneration. Mangrove forests, anchored along the edge of these parks, act to diffuse the storm surge and protect the inland habitats. Although some mangroves are destroyed during hurricanes,

these surges help to maintain a healthy coast. Hurricanes can also give a needed boost during the wet season, providing the pulse of water necessary to reach the estuaries. It is this pulse of fresh water meeting the salty water of the Gulf of Mexico and Florida Bay that help to create conditions just right for abundant sea life nurseries.

Hurricanes are, without a doubt, destructive. The loss of life and property can be staggering, as it was in the wake of the hurricanes of this past year. The damage to park buildings, employee homes and out buildings during Hurricane Andrew made recovery difficult and expensive. The walls of the Everglades' main visitor center were blown out, park homes and offices were flooded beyond repair.

But as we cling to these precarious pieces of land in the path of potent storms, we are reminded not just of our vulnerability, but also of the power of nature and her ability to reclaim a bit of what's been lost.



Discover More With Florida National Parks and Monuments Association

Related books on this topic that can be found at park bookstores or at www.nps.gov/ever/fnpma:

FLORIDA'S HURRICANE HISTORY (#1165) by J. Barnes...Chronicles more than 100 hurricanes, from great storms of the early colonial period to devastating Andrew (1992) and Opal (1995). Features an amazing and comprehensive collection of Florida hurricane photographs, plus storm track maps and other illustrations. 330 pp., paper. \$22.50

EVERGLADES - THE PARK STORY (#1102) by W. B. Robertson, Jr... Let a long-time Everglades wildlife biologist introduce you to the flora, fauna, and history of Everglades National Park in this marvelous, reader-friendly narrative that is keystone to understanding the park. Full Color, 64 pp. \$6.95

South Florida National Park Partners

Expanding possibilities through joint ventures



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10 Parachute Key #51
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(305) 247-1216
(305) 247-1225 FAX

Website

Visit FNPMA's Natural History Mail Order Bookshelf website at:
www.nps.gov/ever/fnpma

Phone and Fax orders accepted with Mastercard, Visa, or Discover.

Discover More with Florida National Parks and Monuments Association

Florida National Parks and Monuments Association (FNPMA) is a National Park Service Cooperating Association dedicated to increasing public understanding of the natural and historic values of South Florida's National Parks. Supplying quality books and educational materials to park visitors for over 50 years, FNPMA now carries hundreds of titles from which to choose.

Books, videos, DVD's, educational materials and other National Park Service themed items may be found at the Visitor Centers for Big Cypress National Preserve, Dry Tortugas and Biscayne National Parks and the Ernest Coe, Royal Palm, Shark Valley and Gulf Coast Visitor Centers of Everglades National Park. Items may also be purchased via fax, mail and on-line.

Sale proceeds are returned to the parks in support of educational, scientific, historical, and visitor service programs not otherwise available through federally funded sources.

FNPMA currently funds the printing of wildlife checklists and site bulletins available free to visitors within each park, as well as this complimentary park visitor newspaper - **National Parks of South Florida "Parks Stories" and "Trip Planner."**



FNPMA also publishes books and other products about the parks, such as **Everglades - The Park Story**, **Big Cypress National Preserve patch and pin**, as well as the **Everglades - Fragile as Glass Poster**, **Pages from the Past - A Pictorial History of Fort Jefferson** and **The Many Faces of Biscayne National Park**.

Discover more about South Florida's National Parks and help to foster the continuation of the parks' educational efforts by supporting FNPMA. Become an association member and you will receive a 15% discount on all purchases. Visit www.nps.gov/ever/fnpma for details on membership.



NATIONAL PARK
FOUNDATION
and
SOUTH FLORIDA NATIONAL PARKS TRUST

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Building a Foundation, New Trust Formed to Foster Long Term Support

Your national parks have a new partner in South Florida.

The South Florida National Parks Trust is a non-profit organization dedicated to winning friends and raising funds for three national parks in Florida – Everglades National Park, Biscayne National Park and Dry Tortugas National Park.

The Trust is raising money to support education programs, volunteer activities and visitor services within the parks so that more people have an opportunity to visit and enjoy these remarkable places.

Contributions to the Trust and its parent organization, the National Park Foundation, have made the following projects possible:

- Environmental Education at Everglades and Biscayne National Parks: Thousands of school children learn about the Everglades, Biscayne Bay and its barrier islands each year during overnight camping trips and day programs. The Trust provides critical support for this program.
- Visitor Film at Everglades National Park: Visitors can learn about the dynamics of the Everglades in English or Spanish while watching the new documentary **Everglades: River of Life** at the Coe Visitor Center.
- Maps of Biscayne National Park. More than 25,000 maps have been produced to educate boaters on how to safely navigate park waters.
- Restoration of the Civil War era cannons at Fort Jefferson. The first formal assessment of the fort's original artillery has been completed and efforts are underway to restore these massive relics of our military past.

More than ever, protection of our natural and cultural treasures ... demands shared responsibility.

— Fran Mainella
Director, National Park Service

- Art Shows in Biscayne National Park. The Community Artist Program provides a showcase for local artists and invites visitors to view the marine park through a fresh lens.
- Channel Markers in Florida Bay. Markers in Florida Bay guide boaters in Everglades National Park and protect the bay's critical habitat.

By supporting these and other projects, the Trust seeks to foster a greater appreciation for Florida's natural wonders and establish a firm foundation for the ongoing stewardship of our national parks.

If you are interested in helping the Trust support our national parks and improve the quality of life for residents, visitors and other living things in South Florida, please contact the Trust at (305) 665-4769.



Through funds provided by the South Florida National Parks Trust, Biscayne and Everglades National Parks are able to continue offering day and camping educational programs to local fourth and fifth grade students.

Friends of Big Cypress Help to Achieve NPS Goals

As the official private sector partner to Big Cypress National Preserve, the Friends group is a membership organization that raises funds from individuals, corporations and foundations to supplement the Park's budget.

Money raised by the Friends supports environmental education, natural resource conservation, and scientific research. The Friends also acts as an advocate for our preserve, particularly on issues that threaten its natural resources.

The Friends of Big Cypress National Preserve was incorporated in 2003 and is governed by a volunteer Board of Directors.

The future of the Friends group looks bright. They have a wonderful group of volunteers who are eager to make a difference by helping Big Cypress. They are a new group and anticipate creating a great organization to assist Big Cypress National Preserve to help citizens and visitors of South Florida better understand the ecosystem of the area.

Each year the Big Cypress Preserve sub-

mits a support request to the Friends' Board of Directors. The Board evaluates each item within the context of their mission and funding priorities. The group works closely with the Park Superintendent and Park staff to develop new projects, set priorities and apprise philanthropic individuals and organizations of opportunities for supporting the Preserve. To discover more information on current goals and projects, check out the "Projects" section of the Friends of Big Cypress National Preserve website at <http://friendsofbigcypress.org>.

The group keeps in touch with their members via the website newsletter, Cypress Chatter, annual membership renewal letters, special appeals, community events and through other areas on the website. For the current issue of Cypress Chatter check out the "Newsletter" section of the website.

When becoming a member of the Friends, you

receive the opportunity to enjoy the friendship of other people who also possess a special affection toward Big Cypress National Preserve and its unique environment.

As a group, the members enjoy each other's company on swamp walks, hikes, canoe trips, camping trips and many other activities. They also join together to help the preserve in areas such as education, cleaning trails, repairs, art projects and more.



The Friends of Big Cypress National Preserve host an annual Labor Day Weekend swamp walk to encourage a deeper understanding of the preserve and the work of the National Park Service. To learn more about getting involved, check out their website or contact them by mail.



Friends of
Big Cypress
National Preserve

Mailing Address

52388 Tamiami Trail
HC 61 Box 16
Ochopee, FL 34141

Website

<http://friendsofbigcypress.org>

Volunteers In Parks are VIPs

One of the most successful partnerships of the National Parks involves our talented cadre of volunteers. In South Florida alone, these dedicated individuals contribute tens of thousands of hours each year to ensure the parks are safe, clean and enjoyable places to visit. Meet a few of these Very Important People who Volunteer In our Parks — our VIPs. Volunteers in America's National Parks are, without a doubt, Very Important People! In 2002, 125,000 volunteers donated 4.5 million hours in over 380 parks across the country.

Our volunteers come from all over to help preserve and protect America's natural and cultural heritage for the enjoyment of this and future generations. Young and old alike give of their time and expertise to assist in achieving the National Park Service mission.

For information on volunteering in any National Park Service area across the country visit — www.nps.gov/volunteer — on the web.

Volunteers in the National Park Service are an important element in preserving and protecting our National treasures. Volunteers assist visitors at campgrounds and visitor centers, help in various resource management programs and aid with a variety of maintenance tasks.



Get Out There Get Involved and Volunteer

To volunteer in a National Park in South Florida, contact:

Big Cypress National Preserve

Phone
239-695-1201
email
isobel_kalafarski@nps.gov

Biscayne National Park

Phone
305-230-1144 x3035
email
jorge_acevedo@nps.gov

Dry Tortugas National Park

email
mike_t_ryan@nps.gov
note — Dry Tortugas National Park currently has an extensive waiting list for volunteer positions.

Everglades National Park

Phone
305-242-7752
email
jackie_dostourian@nps.gov

Endangered Species in South Florida National Parks

Spotlight on the Miami Blue Butterfly

Everglades ecologist Sue Perry is making an unusual sort of investment in our national parks. She searches the wilderness for particular plants, some of which are rare or unusual, and deposits caterpillars on their leaves. You might wonder what good can come from that. Won't the caterpillars eat the plants? Indeed they do. But a few chewed up leaves are a small price to pay for the delightful dividend that awaits—butterflies.

You probably don't need a scientist like Sue to tell you that butterflies spend their youth as caterpillars. But you might not know that caterpillars, like children, can be very particular about what they eat. Each type of butterfly has to lay its eggs on just the right type of plant for its caterpillars to survive. Otherwise, we get no new butterflies. Fortunately, south Florida has many different plant communities and a subtropical climate, which supports a wide variety of butterfly species. That's why Florida, with its forests, meadows, swamps, hammocks and dunes, can be such a great place for butterfly watching.

As humans continue to alter the natural environment of Florida, however, we are squandering our wealth of butterflies. We pave over the grassland. We cut down the trees. We drain the wetlands. We spray to control mosquitoes. We spray to kill bugs that are eating our shrubs. We replace native plants with non-native ornamentals. Butterflies bear the brunt of all these attacks. Their numbers are dwindling dramatically. In fact, some of south Florida's most beautiful butterflies—some found nowhere else in the world—are now rare or endangered.

The sapphire-winged Miami Blue butterfly, for example, was once a common sight at the seashore, where its caterpillars could gorge on balloon vine, a tropical annual vine once common along the coast. But coastal development took its toll on the natural habitat of the Miami Blue and pesticide spraying killed many butterflies. Everyone thought the Miami blue had been extirpated in Florida. Then, miraculously, an isolated colony of about fifty Miami Blue butterflies was found in the Florida Keys in 1999. This colony was utilizing another coastal plant, the grey nickerbean. Imagine happening upon a butterfly that everyone thought

was gone forever. It was like finding lost treasure.

Since that discovery, conservationists have been fighting to save the Miami Blue butterfly. Researchers at the University of Florida's McGuire Center for Lepidoptera are now breeding the species in captivity. They collected a few eggs from the Keys population and established a captive colony, which provides caterpillars and adult butterflies for reintroduction into the wild. You can watch them rearing the Miami blues at their new Butterfly Rainforest in Gainesville.

But where can we put these aspiring butterflies if their habitat is disappearing? Park scientists like Sue Perry believe they have the answer—our protected federal lands. The Miami blue once occurred in Biscayne, Dry Tortugas and Everglades National Parks. These parks now protect the distinct habitats required by the Miami blue. They make an ideal launching point for the reintroduction of endangered butterflies, especially because mosquito spraying is widespread in other areas that have suitable habitat in south Florida. So this year Sue, in cooperation with researchers at the University of Florida and the Florida Fish and Wildlife Conservation Commission, is out in Everglades and Biscayne National Parks depositing caterpillars on nickerbean leaves with hopes that the Miami Blue butterfly will once again grace the Florida mainland.

The Miami Blue is not the only butterfly whose future may depend on our national parks. The endangered Schaus Swallowtail, with its brown and golden wings, the Atala butterfly, with its stunning ruby-red and metallic-blue spots, and the Florida Purplewing, with its violet iridescence, as well as about a dozen other rare butterfly species in south Florida, are all struggling for survival. Without reintroduction programs, we may lose the opportunity to see this kaleidoscope of precious butterflies—except perhaps in a museum with pins stuck through them.

While the experts are working to save endangered butterflies, everyone can help to conserve butterflies in and around their communities. Ask your city to select butterfly-friendly native plants for its parks. At home, plant foliage that caterpillars can eat along with flowers for the butterflies. Be tolerant of—even appreciative of—partially eaten leaves. And refrain from indiscriminate spraying of pesticides. Contact the North American Butterfly Association (www.naba.org) for more information about butterflies and butterfly gardening. Who knows what reward your efforts might reap? Maybe a rare and elusive butterfly will bejewel your path.



Discover More With Florida National Parks and Monuments Association

Related books on this topic that can be found at park bookstores or at www.nps.gov/ever/fnpma:

FLORIDA'S FABULOUS BUTTERFLIES (#1161) by T. C. Emmel... 60 species of Florida butterflies, as well as 22 moths, are represented with striking color photographs and excellent information. Photographs also depict caterpillar stage. 96 pp., paper. \$14.95

BUTTERFLIES OF FLORIDA FIELD GUIDE (#1056) by J. Daniels... Comprehensive field guide to 102 species of only Florida butterflies. Arranged by color and perfect for backyard or field use. Features 247 large full-color photographs of each butterfly plus an illustration that points out key identification marks. Includes state range maps. 256 pp., paper. \$14.95