

Invasive Species: Biodiversity Run Amok

South Florida's national parks and preserves are celebrated for their diversity of life. Plants and animals from the temperate north, the tropical south, and surrounding marine environments mix and mingle in these sanctuaries to provide greater biodiversity than possibly any region of comparable size in the United States.

More reptile and amphibian species occur in Big Cypress National Preserve than in all of Minnesota. More kinds of birds have been observed in Everglades National Park than in West Virginia. The number of fish species in Biscayne National Park exceeds all the fish, amphibians, reptiles, birds, and mammals combined in Yellowstone National Park.

That's the good news. The same conditions which have enriched South Florida's native flora and fauna support overwhelming numbers of non-native (exotic) species.

While many exotics pose little threat to native ecosystems, large numbers are invasive, meaning they have invaded natural areas and compete aggressively with native plants and animals. Florida is listed with California, Hawaii, and Louisiana as having the greatest number of invasive species in the country. South Florida alone contains more invasive animals than any region of the U.S. —biodiversity trivia that's not worth bragging about!

South Florida's warm climate and proximity to the tropics make it a major center for import, breeding and distribution of non-native tropical species. Some plants and animals accidentally escape into the wild, but intentional releases (for sport,

biological control, food, aesthetics, etc.) have also occurred.

Many exotic plants, such as Brazilian Pepper (*Schinus terebinthifolius*), are extremely prolific. Birds eat their tiny

red fruit and spread them via their digestive systems. Coastal Australian Pine (Casuarina equisetifolia) and

Asiatic Colubrina (*Colubrina asiatica*) produce floating fruit which can travel long distances by tides and winds.

More recently, Old World Climbing Fern (*Lygodium microphyllum*), which produces miniscule airborne spores, has begun to infest large tracts of Everglades National Park and Big Cypress National Preserve.

Invasive exotics can wreak havoc on natural communities.

Twelve exotic fish species have made their way, via canals, into the vast Everglades wetlands.

The Mayan Cichlid (*Cichlasoma urophthalmus*), an aggressive, hardy Central American species, thrives from

Continued on page 9



The Old World Climbing Fern (Lygodium microphyllum) is a major threat to native plant communities within the greater Everglades ecosystem. It envelopes large areas of trees, eventually killing them. Photo Courtesy of the South Florida Water Management District.

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.

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



Established in 1974 729,000 acres

Important Information

Mailing Address 33100 Tamiami Trail East

33100 Tamiami Trail Eas Ochopee, FL 34141

Phone

Toll-free 24 Hour Emergency (800) 788-0511 or #NPS on cell Big Cypress Visitor Center (239) 695-1201 Big Cypress ORV Information

(239) 695-1205

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

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 388 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 are preserved for this and future generations. Their scientific, recreational, aesthetic and educational values are

Experience Your America

National Parks Guide is published as a service to park visitors through a generous donation by the Everglades Association.

Big Cypress National Preserve

"This land, by the maps, is in

the temperate zone. But the

laws of the rain and of the

Marjory Stoneman Douglas

The Everglades: River of Grass

seasons here are tropic laws,"

What's the Reason for Subtropical Seasons?

Raining, flowing, and standing still essential waters of Big Cypress National Preserve assist in establishing a subtropic climate Marjory Stoneman Douglas describes in her famous book *The Everglades: River of Grass*. Discovering the Preserve's watery ways leads to an understanding of this unique

Defining the seasons within Big Cypress National Preserve are its arid months as well as its rainy months. During the wet season (May through October) the preserve

climate.

receives 80 percent of over four feet of annual rainfall. This vital fresh water system intertwines itself with the region's seasons while supplying many residents of Florida with drinking water.

Some seasons charge at your senses like a bull dashing towards a red cape. Northern states display bright colored leaves shimmering on trees or brisk frosty air nipping at ones nose. The subtle, or maybe not so subtle, seasons of Big Cypress offer a challenge to the inquisitive observers' eye.

What You Can Discover

Observing closely will allow you to discover seasonal changes that herald Spring, Summer, Fall and Winter in South Florida.

Jumping into spring the Lubber grasshoppers' eggs hatch while the Cypress trees burst out new, bright

green needles. In
February, returns
the Swallow-tail
kite identifiable
by its deeply
forked tail. Male
alligators also
come strutting to
do a little courting
and shaking things
up with their

vibrating bellows. These frisky alligator actions are interesting to watch, but like all wildlife should be viewed from a safe and respectful distance.

Summer storms brew up bringing deafening crashes of thunder, blinding lightning, and dramatic rains. For adventurous hikers to Big Cypress National Preserve this wet season offers an exclusive experience of swamp walks into waist deep waters. The small Gambusia or mosquito fish takes advantage of this water as well to reproduce and thrive by eating mosquito larvae. June pops in bringing

bouquets of white Swamp Lilies and pink Marsh-mallows dotting the prairies. Duckweed, which consists of several miniscule plants, can also be seen during the summer months, its green clusters atop the water.

Beautiful Swamp maple leaves start to turn red greeting the fall. In September, Broom Sedge grasses can be seen producing seeds with delicate feather-like wings. The Cypress needles start to turn brown and begin to fall forming a blanket around the buttress or base of the trunk.

During the winter months water levels recede drastically. This season finds the birds of the preserve busy. The brown and white feathered Osprey begins construction of its nest as wading birds concentrate in the last remaining water. It is in these last remaining pools the endangered Wood stork maybe found capturing its food by the feel of its beak, this is called tactile feeding.

Each season renews an invitation for exploration. The wet and dry conditions of the preserve supply life and the possibility to observe rare plants and animals suited to this irreplaceable world of dampness. At Big Cypress National Preserve no matter what season you choose to visit an adventure is waiting!





extreme as Northern seasons. there are seasonal changes in the sub-Tropics as well. Within Big **Cypress these** changes may be subtle, but can still be seen. From the flush of Kelly green in new cypress needles in the spring, the steel blue-grey of summer storm clouds, the russet auburn of a fall sunset on bare cypress, to the snow-like white of wading birds feeding in a fast disappearing winter pond.

Though not as

Big Cypress Activities January - April 2005	S	M	T	W	T	F	S
"What's that, Ranger?" Daily at 2:00 p.m., 30-minutes. Join a Ranger or a Big Cypress volunteer at H. P. Williams picnic area for a talk on the natural variety that can be discovered within the Big Cypress Swamp. A spotting scope will be available to get a close-up look at alligators and a variety of birds. No reservations required. Wheelchair accessible.	X	X	X	X	X	X	X
Kirby Storter Boardwalk Strolls Thursday through Saturday at 2:00 p.m., one-hour. Explore a variety of habitats, and venture into the heart of a cypress strand during this one mile leisurely stroll along the Kirby Storter Boardwalk. Bring binoculars, water and insect repellent. Meet at the boardwalk parking area on US 41. No reservations required. Wheelchair accessible.					X	X	X
Canoe Trips Saturdays and Sundays at 9:30 a.m., 4 to 5 hours. 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. Reservations required.	X						X
Swamp Walks Sundays and Mondays at 1:30 p.m., approximately 2 hours long. 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. Reservations required. Meet at Oasis Visitor Center.	X	X					
Campfire Programs Fridays and Saturdays at 7:00 p.m., starting January 6th, 1 hour. Programs on Friday will be presented at Monument Lake and Midway Campgrounds. Saturday program at Midway only. Find out more about the natural and cultural history of the region. Bring a lawn chair and insect repellent. No reservations required.						X	X
Deep Lake or Gator Hook Hike Saturdays at 1:00 p.m. 2 to 3 hours. Programs conducted weekly, location changes on alternate weeks, call the visitor center for details on where to meet. Deep Lake is one of the few natural lakes south of Lake Okeechobee, and a definite wildlife hotspot. Gator Hook Strand provides an opportunity to see some of the unique plants deep in the swamp. Be prepared to get wet. Reservations required. Begins 1/14/06 with Deep Lake Hike.							X

Due to unforeseen circumstances this schedule is subject to change.

Drive Safely — Save You and Wildlife

Every year in the United States 200 people are killed, and 29,000 injured as a result of vehicle accidents related to wildlife collisions. These types of accidents generate more than \$1 billion in property damage annually. There is no data on the countless numbers of animals killed as a result of roadkill.

A one-year study of a two-mile length of U.S. Highway 441 (through Payne's Praire State Park) in Florida, did find a total of 3,356 dead animals: 1,291 snakes, 1,333 frogs, 374 turtles, 265 birds, 72 mammals, 29 alligators, 1 lizard.

Vehicle accidents are also a major cause of death within the Florida panther population. Between 2000 and 2005 more than 35 panthers were killed by cars.

With the ever increasing development in South Florida, more and more wildlife habitat is being bisected by new roadways. Steps are being made to help reduce the number of wildlife roadkill events, but a the greatest responsibility still lies with the vehicle operator.

While driving through Florida, be aware of the multitudes of wildlife that must cross the road to take full advantage of their home. Drive with care through panther habitat, especially during dawn, dusk and night hours. Obey special posted speed zones in areas that panthers are known to frequent.





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

Toll-free 24 Hour Emergency (800) 788-0511 or #NPS on cell Park Information (305) 230–PARK

Concession Services

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

Website

www.nps.gov/bisc/

Biscayne National Park Shipwrecks in Biscayne: The Maritime Heritage Trail

As workers were busy constructing the Fowey Rocks Lighthouse on February 17, 1878, a large British steamship, Arratoon Apcar, ran aground on nearby Fowey Rocks. The lighthouse workers and wreckers from the area soon showed up and began to strip the vessel of its cargo. Within ten days, 25 wrecking schooners were at the scene and off loading the ship of its supplies. Today, Biscayne National Park has a plan to invite park visitors to see the wreck of Arratoon Apcar, along with four other wrecks that lie within park boundaries.

In late 2004, the Cultural Resource Division at Biscayne National Park proposed to establish a Maritime Heritage Trail, which will provide the public with opportunities to view and learn about shipwreck sites. In early 2005, the South Florida National Parks Trust provided the initial funding for the project.

There are forty-three known shipwrecks in Biscayne National Park, most of which grounded on the shallow patch reefs that lie east of the islands. Five of these wrecks – Arratoon Apcar, Erl King, Alicia, Lugano, and Mandalay – have been selected for inclusion in the Maritime Heritage Trail. All five of the wrecks being placed on the Maritime Heritage Trail represent interesting aspects of past maritime economies. Each site will have a mooring buoy, allowing for boats to tie up safely and to prevent anchor damage to the site.

Erl King was a British three-masted steamship that ran aground in 1891 and which now lies in 20 feet of water on Long Reef. It reflects the early period of transition from wooden sailing vessels to steel steam ships. The Spanish steamship Alicia was laden with silks, silverware, and other fine household items when it ran aground on Ajax Reef in 1905; the ensuing, often violent battles between 70 different groups of wreckers led U.S. salvage laws to be permanently re-written. The British steamer, Lugano, was the largest ship

to have run aground in the Florida Keys up to the time it sank on Long Reef in 1913. The fifth site, Mandalay, which ran aground on Long Reef in 1966, was a steel-hulled schooner, known as the "red carpet ship of the Windjammer fleet." At the time of its construction in 1928, the luxury yacht was outfitted with a teak and mahogany deck.

The acquisition of outside financing has provided the Cultural Resources Division at Biscayne with the funds necessary to support the mapping of these five wrecks by volunteer organizations. Currently, two groups, Coastal Maritime Archaeology Resources (CMAR), and Marine Archaeological Research and Conservation (MARC), are assisting Biscayne staff with the completion of detailed and accurate site plans for Alicia and Lugano, respectively. CMAR has nearly finished the site plan for Mandalay, and the management report is also near completion. These funds will also be used to produce waterproof site plans and informative material about the shipwrecks, and will cover the cost of installing mooring buoys.

After the documentation and mapping for each site is completed, each shipwreck will be "opened up" as part of the Maritime Heritage Trail. The Trail will become officially established toward the end of 2005 when informative pamphlets and waterproof dive cards displaying the ship's site plan are made available to the public.

As a basic principle, remains of the past that are presented to the public by the National Park Service will be either authentic material culture, or an accurate representation of the material culture that once existed there. The five wrecks chosen to be part of the Maritime Heritage Trail were not intentionally sunk, like many of the "artificial reefs" or other wrecks on so-called "Shipwreck Trails" elsewhere. The shipwrecks of the Maritime Heritage Trail are intriguing

Cultural resource specialists at Biscayne National Park work in unique conditions to catalogue and document



Biscayne Activities January - April 2005		S	M	T	W	T	F	S
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.	ځ	X	X	X	X	X	X	X
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.	Ŀ	x	X	x	X	X	X	X
Boat Trips Guided glass bottom boat tours, snorkeling trips and scuba diving trips are all great ways to experience Biscayne. Weekend Sunset Cruises, too! Call (305) 230-1100 for more information and to reserve your trip. Prices apply.	Ė	x	X	X	X	X	X	X
Ranger's Choice Daily at 2:30 p.m., from December 26 – April 23 Tuesday, Thursday, Saturday, Sunday from April 25 to May 30. From porch talks to short walks, learn about Biscayne's diverse resources with a park ranger. Programs range from 20 minutes to an hour. Check at the visitor center information desk for the day's topic and location.	Ė	X	X	X	X	X	X	X
Gallery Exhibits Artists have always played a crucial role in increasing awareness and inspiring stewardship of National Parks. Changing exhibits in our visitor center gallery highlight the work of contemporary artists who continue that long tradition.	Ė	x	x	x	X	X	X	X
Family Fun Fests 1:00 - 4:00 p.m. second Sunday of every month, January - May. Three full hours of fun for kids and kids-at-heart! Each month features a different theme with lots of hands-on activities. Complete them all and you'll earn a special button! All activities take place at the Dante Fascell Visitor Center. Sponsored in part by the Captain Bob Lewis Boat Center Yamaha Billfish Challenge.	Ė	X						
Canoe and Kayak Trips 9:00 a.m Noon, second and fourth Saturday of every month, January 14 - April 22. Discover the wonders of the mangrove shoreline on a leisurely two-hour guided paddle. Sneak up a tree-lined channel to spot a crocodile, or listen for the whoosh of a manatee surfacing for air on a two-hour journey over seagrass meadows and along the park's mangrove-fringed shoreline. Bring water, sunscreen, a hat, sunglasses, insect repellent, sturdy shoes you don't mind getting wet and lots of positive energy. Provide your own boat, or rent one at the discount rate of \$15.95. Call 305-230-1100 to reserve a canoe or kayak.								X
Island Excursions Sunday afternoons, January through April. How does an afternoon on an idyllic subtropical island sound? Take a leisurely stroll on Elliott Key or Boca Chita Key, Biscayne National Park's two most popular islands. Call (305) 230-1100 for more information and to reserve your trip. Prices apply.	Ė	X						
Discovery Series 7:30 p.m., second Wednesday of each month, through April. 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.	Ė				X			

Due to unforeseen circumstances this schedule is subject to change.

because they are actual maritime casualties of the sea, and because they each have interesting cultural and natural site features.

The Maritime Heritage Trail project was originally envisioned as a unique way to combine the responsibilities of the National Park Service with the appropriate public use of park resources. Through interpretation of local history and maritime archeology, Biscayne National Park will help to foster a sense of public stewardship of submerged cultural resources. The Maritime Heritage Trail will be an excellent model of the unique educational and recreational opportunities that can be managed by the National Park Service.

Resource specialists....





Established in 1947 1,508,570 acres

Important Information

Mailing Address

40001 State Road 9336 Homestead, FL 33034-6733

Toll-free 24 Hour Emergency (800) 788-0511 or #NPS on cell Headquarters (305) 242-7700 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

Concession Services

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

(800) 600-3813 (Room reservations)

Shark Valley Tram Tours

(305) 221-8455

Website

www.nps.gov/ever/

Everglades National Park

"...between Tampa Bay and

Cape Sable, there is but one

topic of conversation in the

fishing season – the tarpon."

Charles Richards Dodge

Scribner's Magazine

March, 1894

From fish scales to flats skiffs: One hundred years in the cult of the tarpon

Hit Flamingo in May or June, get down to the marina ramps before sunrise, and you'll see the tarpon anglers. They'll be the men and women in long-sleeved guide shirts pushing their wide-gunwaled skiffs into the murky green water of the boat basin. The serious devotees - the ones who go out everyday – might look underfed or short on sleep – like college kids during exam week. They will be nut-brown except for the white outline left by their sunglasses or sandal straps.

Tarpon – the fish these anglers seek - are big. Some can weigh over 200 pounds - or as much as the person on the business end of the rod and reel. They are beautiful to watch. Viewed through water,

their coke-can sized scales shimmer silver, green, and blue. On the line, they leap out of the water and shake like dancers at a juke joint. And they fight. Hard. Imagine hooking into a couple of cinder blocks tossed off a second story roof.

Florida's obsession with tarpon is more than one hundred years old. Over that time, Florida, life on the water, and what the tarpon has meant to anglers have all changed dramatically.

When anglers first started coming to Florida, the tarpon was a fish in fashion. In 1885, the popular magazine "Forest and Stream" printed their first article about tarpon fishing in Florida and started a stampede to the southwest coast. Wealthy northerners and Britains - the kind that belonged to well-heeled hunting and fishing clubs - couldn't wait to try their luck with a rod and reel.

The demand for tarpon opened up a region that had been no more than a few outposts in the south's least populated and poorest state. Railway lines pushed their way south to Charlotte Harbor and the prime tarpon fishing grounds at Boca Grande Pass. Steamship lines started up to carry passengers even

farther south – to Ft. Myers, Marco Island, and Chokoloskee. Where only a few years before locals had been digging clams and sweet potatoes to scratch out a living, nice hotels and fish camps sprang up. From their hotels, the wealthy visitors hired sailboats and skiffs to take them far up the creeks that penetrated the Everglades and the Big

In the years since those first well-todo anglers came to Florida, the place

> has changed. Today, Florida's population is 16 million – 40 times what it was in 1890 - and growing fast. The outposts the first anglers visited - Port Charlotte, Marco Island, Punta Gorda, and Naples - have

become towns and cities bustling with snow birds. In the 1890s, the adventurous angler often found himself alone with his guide up a coastal creek, watching gators and the fins of sharks. Today, in places like Boca Grande Pass, anglers queue up like kids at a public pool diving board, waiting for their shot at a tarpon.

Perhaps the biggest change is in the ethics of fishing. In days past, each hotel had a "brag board" that tallied the success of each guest. Camps hung the day's trophy fish from rails outside. Some even tacked up tarpon scales to the wall to mark every catch. A hooked tarpon was a dead tarpon.

Today, tarpon are protected. You need a \$50 tag to keep one, but this is frowned on by most anglers. In 2004, only 49 tarpon were killed and tagged statewide. As guide Robert McCue states, "Back in yesteryear it was common for guides and anglers to hang tarpon from "brag boards" for photo opportunities and to feed their ego. Such images in this modern era are the subject of much ridicule."

The pleasure for many anglers today is getting to know the animal and the world they inhabit. If you listen to a group of experienced tarpon anglers, they'll mention temperatures and tide, suspected migrations routes, and the movement of the tarpon's mullet prey. You'll here them talk about the fish's behavior, about how fish on the flats are spookier than fish in the channels. For many of them, landing the fish is the least appealing part of the journey.

The tarpon has lured fishing enthusiasts to Florida for many years. Today the fish is protected and is seldom, if ever, kept by fisherman. The fish is often seen in the waters of all four National Parks of South Florida.



Everglades Activities January - April 2005	S	M	Т	W	Т	F	S	Shark Valley Area, cont.	S	M	Т	W	Т	F	S					
Royal Palm Area	Slough Slog 1:00 p.m. to 4:00 p.m. Come discover the																			
Three-In-One Hike 10:00 a.m., 2 ½ hours, fee \$20. Explore three 'glades habitats by bicycle – including hammocks, glades and pinelands. Bike, helmet and water provided (10 person limit). NOTE: Purchase tickets at the Coe Visitor	x	X	X	X	X	X	X	mystery of the Everglades. Follow a park a ranger on a guided off-trail walk into the wetlands. Wear lace-up shoes, socks, and long pants that can get wet. Fee: \$15 per person; \$7 for children 12 and younger. Reservations required -call 305-221-8776.							X					
Center or Long Pine Key Campground at least 30-minutes prior to program.								Full Moon Bike Ride 3 hours. Listen to the Everglades symphony under the full moon. Join a Ranger for a 15-	Jan 13 & 14, Feb 11 & 12 at 5:30 PM											
Slough Slog 2:00 p.m., 2½ hours, fee \$15. Venture off-trail into a cypress dome, gator hole, or other wild area. Wear lace-up shoes, socks, and long pants that can get wet and muddy. Walking	X	x	x	x	x	x	X	mile bike ride along the tram road. Bring your own bike. Participants 15 and under MUST wear a helmet. Fee: \$15 per adult, \$7 per child 12 & under. Reservation required -call 305-221-8776.	March 11 & 12, Apr 14 at 6:00 PM child											
stick and water provided (20 person limit). NOTE: Purchase tickets at the Coe Visitor								Gulf Coast Area												
Center or Long Pine Key Campground at least 30-minutes prior to program. Anhinga Amble 10:30 a.m., 50 minutes. Various wildlife can all be seen on this tour of the Anhinga Trail. Meet at the Royal Palm benches. Wheelchair								Boat Tours 1½ hours, fee charged. Discover the Ten Thousand Islands of the Gulf Coast, where the land meets the sea. Tours offered every hour, daily from 9:30 am to 4:30 pm. Boat tours are narrated by a Naturalist.	X	X	X	X	X	X	X					
accessible. An additional walk at 3:30 p.m. may be offered, check at area visitor centers for details.	X	X	X	X	X	X	X	Eyes on the Everglades 2:00 p.m., 20 minutes. Join a ranger for a twenty minute talk on Everglades ecology, history, and environmental issues. Meet	X	X	X	X	X	X	X					
Glades Glimpse 1:30 p.m., 20 minutes. Learn about fascinating Everglades' tidbits at this short talk. Topics vary daily. Meet at the Royal Palm benches. Wheelchair accessible.	X	X	X	X	X	X	X	Wheelchair accessible. Canoe Explorations 10:00 a.m. to 2:00 p.m., 4 hours Come explore the waters of Everglades National Park! With a ranger as your guide, take a												
Mahogany Hammock Walk 3:00 p.m., one hour. Experience one of the most beautiful tree islands in the Everglades! Meet in the Mahogany Hammock parking lot, halfway between Royal Palm and Flamingo. Wheelchair accessible.	X	X	X	X	X	X	X	half day paddle through the Ten Thousand Islands. If tide and weather allow, trip may include a walk on an island. Bring your own canoe/kayak or rent one. Call the Gulf Coast Visitor Center for additional information and to make reservations (239-695-3311).	X			X			X					
Flamingo. Wheelchair accessible. Evening Program 7:30 p.m., 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.	X				X	X	X	Everglades Evenings 7:00 p.m., 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! Bring your own chair. Programs take place at the visitor center.						X						
Flamingo Area In 2005 Everglades National Park was impact Wilma. Due to these impacts, some facilities								Wheelchair accessible. Bike Tour												
of the park may not be available. Call 305-242-7700 for details.						10:00 a.m. to 12:00 p.m., 2 hours. Learn about the history of Everglades City							J J							
Shark Valley Area Shark Valley Tram Tour Tram tours are two hours long, and offered daily every hour on the hour, from 9:00 am to 4:00 pm. Travel to the heart of the Everglades								and its surrounding area. Bring your own bike or rent one. Bike helmets recommended, required for participants under 16. Call or visit the Gulf Coast Visitor Center for more information. Reservations recommended. Offered 1st & 3rd Saturdays, & 4th Thursdays of each not not still the following area. Bring your own bike or rent one. Bike helmets recommended,												
and see alligators, birds and other wildlife in their own environment. Find yourself in the middle of the River of Grass. Wheelchair accessible.	X	X	X	X	X	X	X	Evening Canoe Trip 6:00 p.m. to 9:00 p.m., 3 hours. Leave the road behind as you paddle into the Ten Thousand Islands as the suns sets and the night life emerges. Call the Gulf Coast Visitor Center for additional information (239-695-	Inn 14 8, 27 Feb 14 March 10 8,											
Shark Bite 2:15 p.m., 20 minutes. Join a park ranger for a "hands on" talk shout applage history.								3311). Reservations required. Bring your own canoe/kayak or rent one.												
a "hands on" talk about ecology, history, environmental issues or some surprising	**	**	**	**	**	**	**	Due to unforeseen circumstances this sche	dule is	subje	ect to c	hange	e.							
little known aspect of the Everglades. Meet behind the Visitor Center. Free. Wheelchair accessible.	X	X	X	X	X	X	X													



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**

Group Camping Reservations

P.O. Box 6208 Key West, FL 33041

Website

www.nps.gov/drto/

Dry Tortugas National Park

Hundreds of Cuban Refugees Flee to the Dry Tortugas

In recent months the number of Cuban refugees arriving in Dry Tortugas National Park has skyrocketed. Not since the turmoil of the Cuban Revolution of the 1950s and the Mariel Boat Lifts of 1980 have so many Cubans made the perilous 90-mile journey to this remote park. Once again, desperate times call for desperate measures. Dissatisfaction among Cuba's population is reported to be on the rise. Poor pay, a crumbling infrastructure, frequent power outages, limits on personal freedom, and a myriad of shortages are taking their toll. Many Cuban citizens have reached their breaking point. Refusing to stay, instead they are risking their lives to reach families and friends within the United States. During the first six months of 2005, nearly 600 refugees have arrived within the boundaries of Dry Tortugas National Park.

The goal of these men, women, and children is to reach U.S. soil—having one "dry foot" on land within the Dry Tortugas satisfies this requirement. They represent every walk of life in Cuban society, and include young, old, infants, and those who are pregnant. Upon arrival, they are assisted by park staff who provide food, water, clean clothing, and medical care as needed. Next, they are turned over to the U.S. Coast Guard for transportation into Key West.

The remoteness of the Dry Tortugas makes these islands a favorite target since the chance of interdiction is less here than in more congested areas. Interdiction on the water, no matter how close to shore, typically results in failure. Refugees apprehended at sea are normally turned over to Cuban authorities.

The arrival of refugees has left a lasting impression on everyone involved. After recently making a difficult four-day passage in a small open boat, ten Cubans helped the Park Service volunteers on Loggerhead Key raise the American flag. They had safely reached that far-flung isle, the western most body of land in the Florida Keys, during the early morning hours. With tears of joy, they salute the flag on their first day in the United States. Nearby another man kneels to kiss the soil that he had risked so

much to reach. Week after week, similar scenes are repeated. It is a day—perhaps the single most important day in their lives—that they will never forget.

Like the refugees themselves, the variety of vessels used in the endeavor is impressive. Some refugees are dropped off in the middle of the night, transported aboard high-speed, cigarette-style speedboats. In recent weeks their numbers have declined as several of these expensive boats have been interdicted and confiscated. Most refugees continue to arrive in crude, makeshift boats that are built using a mixture of sheet metal, fiberglass and household items. A small 1-cylinder diesel engine, borrowed from some other purpose, is common on these fragile boats (supplemented by two or more handmade oars).

and to minimize weight, they include very little to provide for their physical comfort or for protection from the elements. Remarkably small, the average boat is only 12-feet in length, yet is crowded with as many as a dozen adults. After sometimes spending days at sea, the refugees arrive exhausted, sunburned, and soaked in diesel fuel and oil. To avoid seasickness and to sustain them on their journey, they bring crackers, water, and sucrose-rich liquids.

The builders of these boats, who are also its

occupants, exhibit a great deal of care and inge-

nuity in their designs. To simplify construction

Even the most careful planning cannot guarantee success. No one will ever know how many refugees disappear at sea or perish during their dangerous journey. Yet they still come. Inspired by the success of others, they risk their lives so that they may live in a land of freedom. For them, the risk is worth the reward.

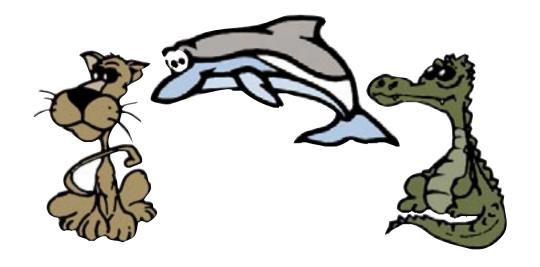
The tarpon has lured fishing enthusiasts to Florida for many years. Today the fish is protected and is seldom, if ever, kept by fisherman. The fish is often seen in the waters of all four National Parks of South Florida. Minibh ercidunt aliquis sendio et, sis euissequisl do odolobortio odit, quisi enim venisl ip exero duisci bla feummodolore mod ming ea feu feuis non vullamc onsent utpatue con ut ut vulput vel etue feugue eniam zzrit lor sumsan utpatie commy niat nos dolor sim euiscillut ullaore dipisit il ipit ulputpat. Piscinc iliquis alit aliquis euguer ilisi bla at. Met, conullaorero eummy nit adion ulla fac



Kids' Corner

Hey Kids, join Peter the Panther, Diego the Dolphin and Aleesha the Alligator as they explore the National Park Service and the National Parks of South Florida. Ask at any NPS visitor center for a copy of the Junior Ranger Booklet. As you join these three during their adventures they will help you discover more about the unique habitats of the region and why it's so important to care for these special places.

Also, to discover more about other national parks across the United States, visit www.nps.gov/webrangers/home.htm.



Invasive Species, cont. from page 1

freshwater sloughs to coastal areas of Everglades, Big Cypress, and Biscayne.

While many exotic animals remain confined to urban/suburban areas, one reptile has made its presence well known in Everglades and Big Cypress—in a big way. The Burmese Python (*Python molurus*) can exceed 20 feet in length, and has been reported from several areas, including Shark Valley, Long Pine Key, and Flamingo. These snakes are sold in pet shops when they're small, but they can quickly become large and aggressive. Some exasperated pet owners have illegally released these monsters onto public lands.

Invasive exotics can wreak havoc on natural communities. Many plants and trees form dense stands, crowding out natives. Melaleuca (*Melaleuca quinquenervia*), introduced from Australia in the 1940's, once occupied 16% of Big Cypress National Preserve. Brazilian Pepper, Australian Pine, and Asiatic Colubrina have caused similar problems. On Biscayne's Elliott Key, the latter species competes with native Nicker Bean (*Caesalpinia bonduc*), the larval host plant of the extremely rare Miami Blue Butterfly.

Many invasive fishes prey upon native aquatic animals and compete for nesting sites with indigenous sunfishes and bass. Imported fire ants (*Solenopsis invicta*) eat just about anything, including the eggs of alligators, Florida tree snails, and endangered sea turtles. Burmese Pythons can consume large prey. According to Everglades National Park wildlife biologist Skip Snow, "The proximity of python sightings to the Paurotis Pond Wood Stork rookery is troubling." Endangered Wood Storks have suffered enough from altered water deliveries without being threatened by massive snakes!

Bad environmental news in South Florida, including the invasive species plague, is disparaging. No effective measures currently exist to control exotic fishes. But we have learned that exotic species generally do best in human-impacted areas, and

do poorly under more natural conditions. Most exotic fishes, for example, tend to concentrate in and near borrow pits and canals, and are less likely to occur in natural alligator holes and remote stretches of marsh. Restoring native fish habitat, as part of ecosystem restoration efforts, may help to lessen the blow from invasives.

Some invasive arrivals are so recent that success in controlling them is unknown. It's become obvious, however, that large-scale efforts, on at least two fronts, are required to manage invasive species: 1) treatment and monitoring and 2) public education to prevent future introductions.

As recently as 10 years ago, vast monocultures of Melaleuca, Brazilian Pepper, Australian Pine, and Asiatic Colubrina infesting national park lands appeared overwhelming. But not all battles in the war against invasives are lost. Nearly every infested acre of Big Cypress, Biscayne, and Dry Tortugas have been treated (usually by slashing the trees and applying herbicides). Monitoring and retreatment of areas where these plants may return is the current priority. Large tracts of Brazilian Pepper in Everglades (around Flamingo and in former "Hole-in-the-Donut" farmland near the park's research center) have been eradicated, and the National Park Service is vigorously attacking Old World Climbing Fern. While researchers concede that exotic plants will probably never disappear, constant vigilance will keep them within manageable levels.

To prevent future introductions, public education about the legal and environmental consequences of releasing exotic species into the wild is paramount.

As we grapple—sometimes successfully—with invasive species, the South Florida ecosystem may rest a little easier. Nature has blessed this land with a biological cornucopia, one which is profuse enough without unwelcome guests.



Invasive exotic species such as the Burmese python (left) are now commonly found within the Everglades Region of South Florida. It is not yet known what impact they have on the populations of native species. It is believed that the population of snakes began by pet owners innocently releasing unwanted house pets.

Invasive plant species such as the Austrailian Pine (right) create unwanted obstacles along nesting beaches for endangered sea turtles. The shallow roots of the tree are often exposed due to erosion, and turtles find it nearly impossible to navigate around them to reach vital nesting areas.



New Tool Unleashed on Python Threat

In their growing battle against giant pythons that have invaded the Florida Everglades, national park officials there have recruited an unlikely ally: a beagle puppy nicknamed "Python Pete."

For the past few months Lori Oberhofer, an Everglades wildlife technician, has been training her seven-monthold puppy to pick up the scent of the invasive Burmese pythons.

Once he has completed his training, Python Pete will be a "first responder unit," says Oberhofer. His task: to track down snakes and bark after they have been sighted, enabling park officials to capture and remove the huge pythons.

Oberhofer got the idea from a similar program in Guam, where she researched brown tree snakes four years ago.

U.S. Department of Agriculture officials have been using Jack Russell terriers on that Pacific Ocean island to detect invasive brown tree snakes in airport cargo. The USDA aims to prevent the snakes from slipping out of Guam, where they have wiped out bird populations.

"I figured that if a terrier could be trained to sniff out brown tree snakes, then perhaps a beagle could be trained to sniff out pythons," Oberhofer said. As he does in training, Pete will stay on a leash once he is on real missions. The aim is to keep the beagle from becoming a snake snack

"My plan is to use him along the park roads and trails but not out in the water," Oberhofer said. "The scenario I envision is getting a report of a python, perhaps seen by a tourist or park employee, and I would then take Pete on a leash to the site where the python was last seen, and he would track, on the leash, and find the python for us."

She hopes Pete will be ready to go to work in another couple of months. But she and other park officials emphasize that Pete is just one of several control methods they are researching to combat the pythons.

Said Skip Snow, NPS biologist, "He's another tool in our toolbox."

To report a sighting of a python within any of the National Park Areas in South Florida, dial #NPS on your cell phone.

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SOUTH FLORIDA NATIONAL PARKS TRUST

Mailing Address

South Florida National Parks Trust 1390 South Dixie Highway, Suite 2203 Coral Gables, Fla. 33146 (305) 665-4769 (305) 665-4171 FAX

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South Florida National Park Partners Expanding possibilities through joint ventures

Discover More with the Everglades Association

The Everglades Association 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, The Everglades Association, now carries hundreds of items from which to choose.

Adult and children's books, maps, posters, DVD's, and other National Park Service theme-related 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 phone, fax, or mail.

Sale proceeds are returned to the parks in support of educational, scientific, historical, and visitor service programs not otherwise

available through federally funded sources. The Everglades Association 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."

The Association 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.

South Florida Trust builds support for national parks in South Florida

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.
- Wayside Exhibits at Everglades National Park: Visitors can learn about the Everglades in English and Spanish through 10 new wayside exhibits being installed along the main park road with money provided by the Trust.
- Underwater Marine Heritage Trail: Five submerged shipwrecks in Biscayne National Park will be linked in an underwater trail for divers and snorkelers, with detailed site maps and educational guides for the public.
- Saving the Civil War era cannons at Fort Jefferson: Efforts are underway to restore the massive cannons that defended Fort Jefferson from attack in the 19th century. The Trust is underwriting this effort.
- Underwater Camera at Shark Valley: Visitors to Shark Valley one of the premiere places to see wildlife in the Everglades can look for wildlife under water with the help of a submerged camera being installed behind the 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.
- 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.







TAKE PRIDE IN AMERICA

Get Out ThereGet 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

Species of interest in South Florida National Parks Sneaky villains find a window of opportunity at Frank Key

Jerry Lorenz stops suddenly, holds up his hands, and calls softly, "Don't move!" Right in front of me is a spoonbill chick. Jerry knows that a spooked chick will often leap out of the nest. A long fall to the ground could be lethal for the little bird, so I stop in my tracks. Moving quietly through this tangle of mangroves and mud is easier said than done. I have already tripped twice and I don't want to spook the bird.

While chicks on this island have had a good year, chicks on nearby Frank Key haven't been so lucky. Earlier in the season, Jerry and his team of researchers at Audubon's Tavernier Science Center began noticing that chicks at Frank Key were disappearing. At the time of this trip, only 6 chicks had survived. This is a far cry from the 115 chicks that fledged from Frank Key in 2003.

With a grace gained from over a decade of field work, Jerry moves nimbly through the mangrove prop roots and pounces like a cat on the chick. The bird cowers in his hands and starts squeaking in terror. Jerry speaks soothingly, like he's trying to calm a baby. He smiles like a little kid and leans closer to sniff the chick. I laugh, thinking that it can't be that pleasant of a smell since spoonbill chicks are fed a steady diet of regurgitated fish and other saltwater critters. Jerry invites me to take a whiff, and to my surprise, it smells sweet, just like a new puppy.

Jerry tells me this baby spoonbill is a late bloomer. The rest of the colony's chicks have already

left the nest. Though he's a little behind, this chick will probably make it. Over the next few weeks, he'll learn to fly. Soon he'll follow his parents to the feeding grounds in the ponds along the south shore of the Everglades and learn to swing his bill back and forth searching for food.



The death of the chicks was a mystery. Jerry and his colleagues had their theories. A stray raccoon can clean out a colony in just a few days. Had a coon found its way to Frank Key? Jerry and his team took their kayaks to Frank Key to find out. What they found was heartbreaking.

Jerry was paddling around the Key when he noticed a motor boat approaching. It wasn't surprising. In the years he's been watching the Frank Key, more and more boats have been using the unmarked channel on the Key's west side. As the boat approached the colony, the adult spoonbills spooked off their nests. Then, he saw

something that surprised him. While the parents were away, crows and night herons came from nowhere, entered the nests, and started preying on young spoonbills. By the time the parents returned, many chicks were dead.

A major period of decline for the spoonbill occurred in the early 1800's when the wings of this beautiful creature were made into fans, a "regular article of trade" in St. Augustine, according to John Audubon. The millinery or "hat trade" also took a heavy toll on the spoonbill in the late 1800's. Although their feathers were never in as great of demand as the plumes of the egrets because they faded, spoonbills were still slaughtered along with many plume birds, and their numbers declined. The establishment of National Park areas in South Florida appears to have a positive affect on the spoonbill population, which began reusing nesting sites in the area that hadn't been occupied since the late 1800's.



The Roseate Spoonbill is found along the south Florida coast from the Florida Keys north to Tampa, with some populations in northeastern Florida and the eastern coast of Texas down to Mexico.

Jerry had found the reason for Frank Key's decline. Crows and night herons – the "sneaky villains" in this story – were keying into the sound of an approaching boat like it was a dinner bell. But the birds weren't the real villains. Neither were the boaters. No one had warned them about the nests. Rather both the boaters and birds found themselves in a bad situation. While the news is unfortunate, we can take action. Rangers at Flamingo will be marking the Frank Key channel as a no wake zone during the breeding season. Hopefully, this will prevent people from racing by the colony and spooking birds.

After examining the chick, we put it back in its nest and hike across to the other side of the island, where the main colony is. When we reach it, the air is filled with hundreds of deep pink adults and light pink fledglings. We wade out into the water and mud to begin our survey. Jerry calls out tag numbers. As I record them, dozens of agile parents and their wobbly young are flying just feet above our head. The birds are gorgeous. It is no wonder the spoonbill has become a symbol for the beauty of Florida.

Roseate spoonbill Ajaia ajaja

Identification Tips:

Length: 28 inches **Wingspan:** 53 inches Sexes similar Large, long-legged wader with a long neck and a long, spatulate bill Holds neck extended in flight

Adult:

Red eyes
Bill grayish with dark mottling
Head greenish and unfeathered with
black nape band
White neck and back
Pink back and wings
Legs red, feet dark

Immature:

Yellow eyes Bill yellowish White or very pale pink body plumage White feathered head

Similar species:

No other bird has a similar bill. Flamingos are also long-legged pink wading birds but have short, thick, hooked bills and black in the flight feathers.

THREATS:

Predation of eggs and chicks, and human caused threats such as the pollution and draining of wetlands habitat and the widespread use of pesticides.