

The 65-foot lighthouse on Boca Chita Key provides outstanding views of Biscayne Bay.

Biscayne National Park has the simple beauty of a child's drawing. Clear blue water. Bright yellow sun. Big sky. Dark green woodlands. Here and there a boat, a bird. It is a subtropical place where a mainland mangrove shoreline, a warm shallow bay, small islands or keys, and living coral reefs intermingle. Together they make up a vast, almost pristine wilderness and recreation area along the southeast edge of the Florida peninsula. The park, located 21 miles east of Everglades National Park, was established as a national monument in 1968. In 1980 it was enlarged to 173,000 acres and designated as a national park to protect a rare combination of terrestrial and undersea life, to



preserve a scenic subtropical setting, and to provide an outstanding spot for recreation and relaxation.

In most parks land dominates the picture. But Biscayne is not like most parks. Here water and sky overwhelm the scene in every direction, leaving the bits of lowlying land looking remote and insignificant. This is paradise for marine life, water birds, boaters, anglers, snorkelers, and divers alike. The water is refreshingly clean, extraordinarily clear. Only the maintenance of the natural interplay between the mainland, Biscayne Bay, keys, reefs, and the Florida Straits keeps it that way. The Caribbean-like climate saturates the

park with year-round warmth, generous sunshine, and abundant rainfall. Tropical life thrives. The land is filled to overflowing with an unusual collection of trees, ferns, vines, flowers, and shrubs. Forests are lush, dark, humid, evergreen; many birds, butterflies, and other animals live in these woods.

No less odd or diverse is Biscayne's underwater world. At its center are the coral reefs. Unlike the ocean depths, which are dark and nearly lifeless, the shallow water reefs are inundated with light and burgeoning with life. Brilliantly colorful tropical fish and other curious creatures populate the reefs. Their appearances and

behavior are as exotic as their names stoplight parrotfish, finger garlic sponge, goosehead scorpionfish, princess venus, peppermint goby. A reef explorer can spend hours drifting lazily in the waters above the reefs and watch a passing procession of some of the sea's most fascinating inhabitants.

Whether on the reefs, the keys, the bay, or the mainland, you leave behind what is familiar and become acquainted with another world that is strange and wild. Biscayne is a different sort of national park. Expect the unexpected.

Undersea Metropolis

Reefs are the cities of

the sea. In and around them lives a huge, diverse population of

fish and other marine

creatures. Every hole,

every crack is a home

for something. Some

Christmas tree worm,

live anchored to the

coral. There is food to

satisfy all tastes. Fish

and flamingo tongues

(snail-like mollusks) eat

coral. Fish are food for

other fish and, quite

often, for seafood

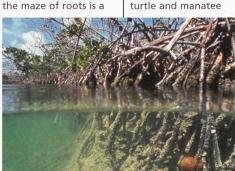
inhabitants, such as the

Mainland

In Biscayne the mainland mangrove shoreline has been preserved almost unbroken. For many years these trees of tropical and subtropical coasts were considered almost worthless. Some were cut for timber or used to make charcoal As recently as the 1960s the mangrove wilderness was referred to as "a form of wasteland." Like thousands of other wetlands, it was cleared or filled to make way for harbors and expand ing cities

Now we understand that the mangroves are vital to the well-being of the park and surrounding areas. Without them, there would be fewer fish for anglers and fewer birds for birdwatchers. Biscayne Bay would become murky Areas inland would be exposed to the full violence of hurricanes.

It is hard to see what lives in the brackish waters of the mangrove swamps because this water is stained brown by tannins from the trees. Hidden among



Red mangroves

all sorts of commercial sport, and reef fish. Here the young find shelter and food. Fallen mangrove leaves feed bacteria and other microorganisms, and so begins a food web that supports not only underwater life but also birds that nest and roost in the tree tops.

The mangrove forest appears as a nearly impenetrable fortress. Perhaps a snake or mos quito can move through easily, but little else can. It makes an effective buffer between the mainland and Biscayne Bay. It guards the bay from being dirtied by eroded soil and pollutants washing from the land by trapping them in its tangle of roots. Mangroves also stand as a natural line of defense against the strong wind

and waves of hurricanes. "Freaks" of Nature Mangroves have been called freaks, and a close look reveals why. Roots of the red mangrove arch stilt-like out of the water or grow down into the water from overhead branches. The roots of the black mangrove look like hundreds of cigars planted in the mudthey are the breathing organs necessary for survival in this waterlogged environment

Bay

"The water of Biscayne Bay is exceedingly clear In no part can one fail to clearly distinguish objects on the bottom biologist Hugh Smith wrote in 1895. Today the shallow waters of this tropical lagoon are still remark ably transparent. They serve as a blue-green tinted window to a world of starfish, sponges, sea urchins, crabs, fish of all sizes and kinds, and hundreds of other marine plants and animals.

The bay is a reservoir of natural riches, teeming with unusual, valuable, and rare wildlife. It is home for many; a temporary refuge and feeding ground for others: and a birthplace and nursery for still others. It is a benign powerhouse, designed to draw energy from the Sun and use it to support a complex and farreaching web of life

The manatee is one unusual animal that depends on this web. This gentle blubbery giant visits the bay in winter to graze peacefully on

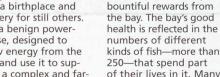
supply that attracts this

productive nursery for grasses. It is the water's

endangered marine Sanctuary for Birds Birds are drawn to the bay year-round. Each follows its own instincts for survival. Brown pelicans patrol the surface of the bay, diving to catch their prey. White **Defending the Coast** ibis meander across exposed mud flats, probing for small fish

and crustaceans. Large colonies of little blue herons, snowy egrets, and other wad ing birds nest seasonally in the protected refuge of the Arsenicker Keys. The extremely shallow waters surrounding these mangrove islands especially well suited for foraging

> **History of Abundance** The coastal wilderness of south Florida was the first spot in North America explored by Europeans. Spanish explorer Ponce de Leon sailed across Biscayne Bay in search of the mythical Fountain of Youth in 1513



turtle and manatee

grunts, snappers, and he highly prized Spanish mackerel, find food and shelter from big hungry predators in the bay's thick jungle of marine grasses. mages of the Bay Peering into the crystal waters of Biscayne Bay, it is hard to imagine either its past or its future as clouded. The bay seems suspended in time. While neighboring Miami-Dade County warmth and ample food

has mushroomed into a metropolis of more than 2.2 million people the bay appears to have captured the magic of the Fountain of Youth that eluded Ponce de eon. It has remained beautiful and relatively

unspoiled. Though

thousands of years old,

it is still vibrant with

life. But, this has not

always been true. Early in the 20th century parts of the bay were dying. In some northern areas of the park pollutants poisoned the bay, and construction runoff spilled suffocating amounts of sediments Today after years of cleanup, the north bay is recovering and the rest of the bay remains

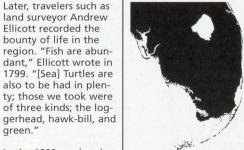
In 1895 biologist Hugh Smith declared that Biscayne Bay was "one of the finest bodies of water on the coast of Florida." In another hundred years—if wellprotected—it still could

nearly pristine.



Studying turtles

Reef



Keys

Later, travelers such as

land surveyor Andrew

region. "Fish are abun-

dant," Ellicott wrote in

also to be had in plen-

ty; those we took were

of three kinds; the log-

In the 1800s and early

1900s many settlers of

the keys earned their

living from the bay.

West fishermen who

fast-growing, "fine-

Among them were Key

collected and sold the

quality" bay sponges.

Underwater Crossroads

Today commercial fisher-

men, anglers, snorkelers,

and boaters still reap

of the fish that dazzle

snorkelers and divers

on the coral reefs by

day feed in the bay at

night. Like the man-

grove shoreline, the

bay plays a critical role

as a fish nursery. The

young of many coral

sport fish, such as

reef fish, such as parrot

and butterfly fish, and

'[Sea] Turtles are

Ellicott recorded the

bounty of life in the

About 100,000 years ago the Florida Keys were under construction. The builders were billions of coral animals each not much larger than a period or a dot on this page. Together these animals built a 150-mile-long chain of coral reefs. When these reefs later emerged from the sea, they became the islands of the Florida Keys. If you

look closely, you can see

fossil coral rock on the islands of Biscayne. dogwood. Strangler fig. Devil's-potato. Satinleaf. Torchwood. Mahogany, Only tiny pockets in South Florida contain this mixture of tropical trees and shrubs common in the West Indies. North-flowing air, ocean currents. and storms delivered the pioneer seeds and plants that eventually grew into the islands'



lush, jungle-like forests.

Brown pelican

Walking along a trail in these hardwood ham mocks, you may see other tropical natives. Zebra longwing butterflies and endangered Schaus swallowtails find refuge in the tangle of leaves and vines. Golden orb weavers betray their presence with large yellow spider webs. Birds and a few mammals share these isolated. mangrove-fringed keys.

American Indians to Millionaires Over the years the keys

attracted people willing

to risk the chance of a

hurricane and the certainty of pesky bugs. American Indians were first. Tree-cutters from the Bahamas came later and felled massive mahoganies for ships. Early settlers on Elliott Key cleared forests and planted key limes and pineapples. Subtropical forests throughout the keys were destroyed. Biscayne preserves some of the finest left today. The islands abound with egends of pirates and buried treasure. Shipwrecks, victims of high seas, and treacherous eefs lie offshore. Fortune hunters, bootleggers, artists, gamblers, millionaires, and four **United States Presidents** have spent time on the eys of Biscayne



Sailing on Biscayne Bay

Dive into the undersea realm of the coral reefs, and you will discover a feast for the eyes. It is a living kaleidoscope of gaudy colors, bold patterns, intricate designs, and peculiar shapes. Alien, yet inviting, the life of the reefs excites and mystifies snorkelers and scientists alike.

Reef Builders Among the most puzzling creatures are the corals. Early biologists suspected they were plants. But each coral-each brain, finger, or staghorn corals actually a colony of thousands of tiny, softbodied animals. These

animals called polyps

Coral polyps. tons at night to feed, catching drifting plankton in their out-

stretched tentacles.

are relatives of the sea

anemone and jellyfish.

Rarely seen in the day,

their hard, stony skele-

the polyps emerge from

the effort of billions of individuals. Each extracts building material—calcium—from the sea and uses it to make itself a protective tubeshaped skeleton. Hundreds of these skeletons make a coral. Many corals, growing side by side and one on top of the other, form

suming animals are the

mighty master reef

builders. The creation

of one reef requires

Corals are very particular about where they build reefs. Like the offshore seas of Biscayne, the water must be the right temperature (no lower than



68°F), the right depth (no deeper than 200 feet), and be clean and well-lit. Such conditions exist all along the Flori-

da Keys in and south of Biscayne and in the Caribbean, and in other





Rock beauty angelfish



Brain coral and Christmas tree worm



Fishes of the Reef

Snorkelers view elkhorn coral.

'In variety, in brilliance of color, in elegance of movement, the fishes may well compare with the most beautifu assemblage of birds in tropical climates," Louis Agassiz, 19th-century French naturalist, wrote after visiting the Florida reefs. Reefs host the world's most spectacular fish. Along Biscayne's

Trumpetfish

reefs are more than 200 types of fish. Some are impressive in size, others in color. Some seem grotesque, others dangerous-or are they? Many behave in bizarre, unexplainable ways, at least to humans. Few places on Earth match the diversity of life in the reefs' underwater

Queen angelfish

A Sea of Color

Imagine the most color-

ful scene vou have ever

lowers, glittering lights

desert sunset. Whatever

it is, the dazzling spec-

trum displayed by reef

it. The range extends

from the flamboyant-

fish will equal or surpass

seen—a field of wild-

of a city at night, a



rotfish, and neon gob-

ies—to fish that seem

There is much specula-

tion about what role

answer differs for each

fish. An eye-grabbing

wardrobe may serve

as a kind of billboard,

advertising a fish's pres-

the colors play. The

drab and ordinary.

Foureye butterflyfish

wrasses attract other

sites and dead tissue,

return. Multicolored

splotches blur the out-

line of other fish, mak-

ing it difficult for preda-

tors to see them against

the reef's complex back-

getting a meal in

bars, stripes, and

fish in this way so they

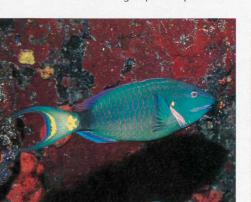
can clean them of para-

masters of disguise. Many turn different colors at night, presumably to hide from nocturnal predators. The camouflaged moray eel blends in with its surroundings. Unsuspecting fish that swim too close often get caught between the eel's powerful jaws and needle-sharp teeth.

Parrotfish

A Montage of Motion Morays are sedentary creatures, but most fish swim freely about the reefs. Some, such as the solitary angelfish, move with deliberate grace. Others dart about in schools of thousands. moving with the precision of choreographed dancers. Each closeknit group offers protection

to its members. Reef fish are noted for their eccentric behavior. One is the sharp-beaked parrotfish. It can be seen, and even heard, munch ing on coral. Odd meal for a fish? Not really. Along with rock, the parrotfish is devouring algae and coral polyps.





Southern stingray

Exploring Biscayne

On the Mainland

Convoy Point Park headquarters and Dante Fascell Visitor Center are at Convoy Point. The visitor center has exhibits, theater/gallery, a bookstore, and schedules of activities. Convoy Point has a picnic area with tables, fire grills, restrooms, and a short trail with views of birds and marine life. Call 305-230-7275.

Boat Tours A concessioner offers glass-bottom boat tours, snorkeling and scuba diving trips to the Camping There are no campgrounds on the reefs, and occasional island excursions for picnicking and hiking. All tours leave from Convoy Point. The concessioner rents snorkeling and scuba equipment, kayaks, and canoes. For information and reservations contact:

Biscayne National Underwater Park 9710 SW 328th Street Homestead, FL 33033 305-230-1100

Accommodations and Services Homestead, Miami, and the Florida Keys have hotels and motels; reservations are recommended. They also have restaurants, service stations, groceries, and other stores. Nearby public marinas have boat launch ramps and fuel, and often charter or rent sail and motor boats (see map below).

park's mainland. See "On the Keys" (below right) for information about island camping; these campsites are reached only by boat. Nearby private mainland campgrounds and trailer parks in Homestead, Florida City, and South Miami have spaces for tents, mobile homes, and trailers. Everglades National Park, John Pennekamp Coral Reef State Park, and other area parks have campgrounds, open year-round.

General Information

Climate Biscayne has warm, wet summers (May through October) and mild, dry winters (November through April). Expect sunshine and high humidity year-round. High temperatures average in the high 80s to low 90s°F in summer and mid-70s to low 80s°F in winter. Annual rainfall fluctuates, but 85 inches or more is common. Most rain falls in summer in brief afternoon thunderstorms. Summer and fall are seasons for hurricanes and tropical storms.

Safety and Regulations • The park is a wildlife and historical preserve—do not disturb or remove natural or historical objects. • Loaded firearms, explosives, and other weapons are prohibited. • Pets must be on a leash no longer than six feet and are restricted to certain areas of the park. • Fires are allowed only in campstoves or

designated grills. • Be careful wading; coral rock is sharp. • There are no lifeguards; do not swim alone. • Mosquitoes and biting insects are here year-round but are fewest January to April. Use insect repellent. If camping, be sure your tent has bugproof netting. • Wear waterproof sunscreen. • Emergencies call 911

For More Information Biscavne National Park 9700 SW 328th Street Homestead, FL 33033-5634 305-230-7275 www.nps.gov/bisc/

Información en Español Las llamadas locales requiren marcar el códico de area (305) más el

Getting to the Park The main north-south highways approaching Biscayne are Florida's Turnpike and U.S.1. The most direct route to Convoy Point is via SW 328th Street, which intersects with U.S.1 in Homestead. Driving south on the turnpike, you can reach SW 328th Street by taking Speedway Blvd. south (SW 137th Avenue), then follow signs. The rest of the park is accessible only by boat.

See map for boat

launches.



Boat launch

Gas dock

Biscavne National Park is one of more than 380 parks in the National Park System. The National Park Service cares

Map Key to Facilities

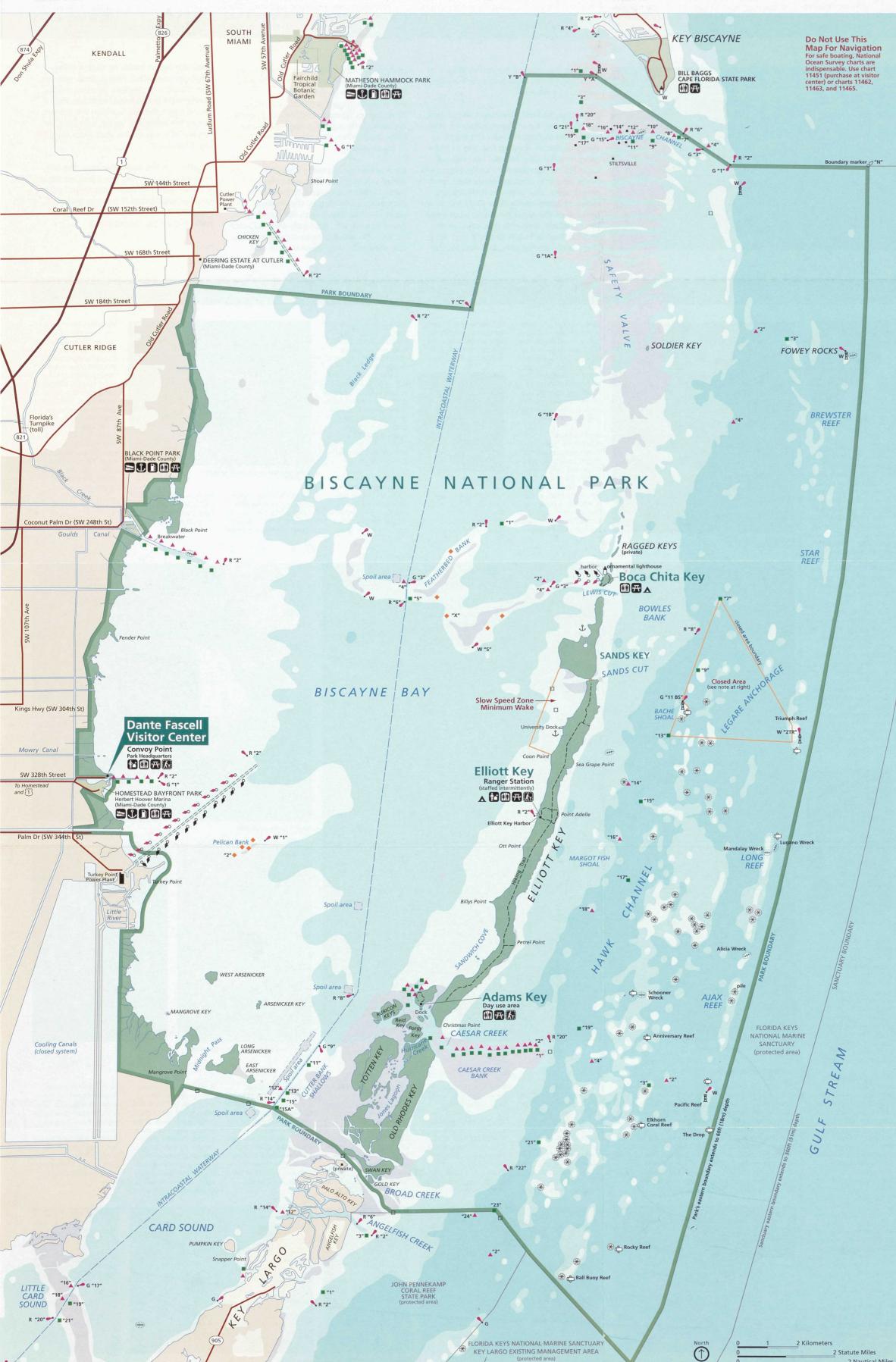
Ranger station

Restrooms

for these special places so that all may experience our heritage. To learn more about national parks visit www.nps.gov

Self-guiding trail

Primitive campground



Picnic area Map Key to Water Features and Landmarks Over 12 feet (Over 3.6 meters) Shallows and Reefs Coral reefs also lie deep below water surface. Channel Markers (entering fro Other buoy Starboard buoy Other Aids and Landmark Lighthouse Danger Shoa G Green Mooring buoy W White **Boating Markers and Flags** Channel Markers (entering from seaward) **Regulatory Markers** Keep out Danger Storm Warning Flags For up-to-date weather fore-casts, phone (305) 229-4522 or Gale (39-54 mph winds) Small craft advisory (20-38 mph winds) monitor marine radio reports on VHF channels 1, 2, or 3. Channel 16 broadcasts special Hurricane (74 mph

On the Water

The Florida Straits and Biscayne Bay offer great year-round recreation. You can enjoy saltwater fishing in all seasons. Marlin and sailfish are popular catches in the ocean. Snapper and grouper are caught in the bay; Florida fishing licenses required. You must obev regulations on size. number, season, and method of take. You can In the southern part of take stone crabs in season the bay, low tide occurs round. Lobsters are protected in the bay and tidal creeks but may be taken on the seaward side of the keys in lobster season. Waterskiing is allowed; avoid mooring sites and watch for swim-

mers and divers. Closed Area—Legare Anchorage No stopping, swimming, diving, or snorkeling is allowed. Underwater viewing devices, such as cameras and glass bottom buckets, are prohibited. Do not anchor vessels. Drift fishing and trolling are allowed.

Rules and Safety Tips Caution: navigating the shallow waters of Biscavne can be tricky. Water depths on nautical charts represent the average depth at low tidelevels may be lower or higher. In Biscayne Bay low and high tides occur later than the times listed in the tide tables for Miami harbor entrance. as much as 3½ hours later and high tide as much as

Presailing Checklist You must take this gear when boating: U.S. Coast Guard-approved personal flotation device (PFD) for each passenger, fire extinguisher, and signaling equipment. Take enough fuel for a round trip. Tell someone where you are going and when you expect to return. Before leaving shore, check weather forecasts, sea conditions, and tides.

2½ hours later.

Safety Afloat Stay alert! Watch weather closely. Storms move quickly, bringing rough seas and the danger of lightning. Monitor marine weather radio broadcasts. If a storm breaks seek the

nearest safe harbor. **Caution Shallow Water** Use caution if boating near shallow areas or reefs. Striking the bottom with your propeller can and may damage your propeller or engine cooling system or hull. · Look out for manatees; propellers cause injury and death to these endangered mammals. Watch for swimmers and divers near moored boats or in an area where they might be expected. Stay 300 feet away from a diver's flag. If you leave your boat to swim,

anchor it securely. Don't

let currents, which are

strongest on the outer

the keys, carry you or

ing area; do not disturb

these keys. West Arsenic-

ker Key, Arsenicker Key,

and the islands in Sand-

wich Cove are closed to

the public. Pack out all

trash on the keys. Some

private property still ex-

ists on the keys; please

few tropical plants can

respect owners' rights. A

your boat away.

reefs and in cuts between

On the Keys

The keys can be reached

only by boat. Developed recreation areas and services are limited to a few islands. Boat fuel, supplies, and food are not sold on any island, but they are available at mainland marinas. Only Elliott Key has drinking water.

Elliott Key Boat docks are located at Elliott Key Harbor and at University Dock. A campground with picnic tables and grills operates on a firstcome, first-served basis. Drinking water, restrooms, and showers are nearby. Popular overnight anchorage sites are offshore. The island has a self-guiding nature trail.

Adams Key A free boat dock, a picnic area, restrooms, and a trail are available for day use.

Boca Chita Key A cleated seawall, picnic area, hiking trail, and restrooms are available. A campground with grills and tables operates on a firstcome, first-served basis. An ornamental lighthouse is open intermit-

Sands Key Overnight anchorage sites are located offshore.

Rules and Safety Tips The entire park is a wildlife refuge. DO NOT FEED \$25. WILDLIFE. Raccoons befeed them. Arsenicker Keys are particularly

important as a bird nest-

cause painful itching; do not touch any plants that you don't recognize as harmless. Fees There is a \$15 per night overnight dockage fee at Boca Chita Key and Elliott Key harbors, which includes a \$10 camping

come pests when humans Pets Leashed pets are permitted only in the developed areas of Elliott Key and Convoy Point.

Protecting the Reef A

coral reef is alive. If your

fee. Group campsites are

On the Reefs

Reef exploring is best on

calm, sunny days. Both the outer reefs, along the park's eastern boundary, and the patch reefs, closer to shore, offer good snorkeling and diving. Strong currents can occur on the outer reefs. Unless you are experienced, we recommend that you stay on calmer patch reefs. Reef guidebooks are sold at Dante Fascell Visitor Center. Mooring buoys are available on some of the patch reefs. Check with a ranger for buoy locations and for infor-

Protecting Yourself and Safety Tips Use caution when you visit the reefs. All snorkelers and divers 2 Nautical Miles must display the standard diver's flag to warn boaters of their presence. Be aware of other boats in your area; propellers have injured divers. Never swim alonealways have another person stay on board.

Reef animals generally will not harm you if you leave them alone. It is good practice not to touch anything, even if it looks harmless. Coral can cause deep, slow-healing cuts. Attacks by barracuda or sharks rarely occur, but both are considered dangerous and should be watched carefully. Ask a ranger about hazards before you venture out.

boat hits a reef, it will damage your boat, scar the reef, and kill coral animals. You are subject to a fine and may be liable for the cost of restoring the damaged resource. Watch for coral heads near the surface if boating near patch reefs. Anchors can damage reefs; anchor in a sandy bottom or use a mooring buoy. Standing or sitting on coral or grasping it can cause injury. Do not disturb reef inhabitants. Resist the temptation to take home a souvenirthis is illegal and diminishes the beauty of the reef. Cultural artifacts are also protected; do not remove them.

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