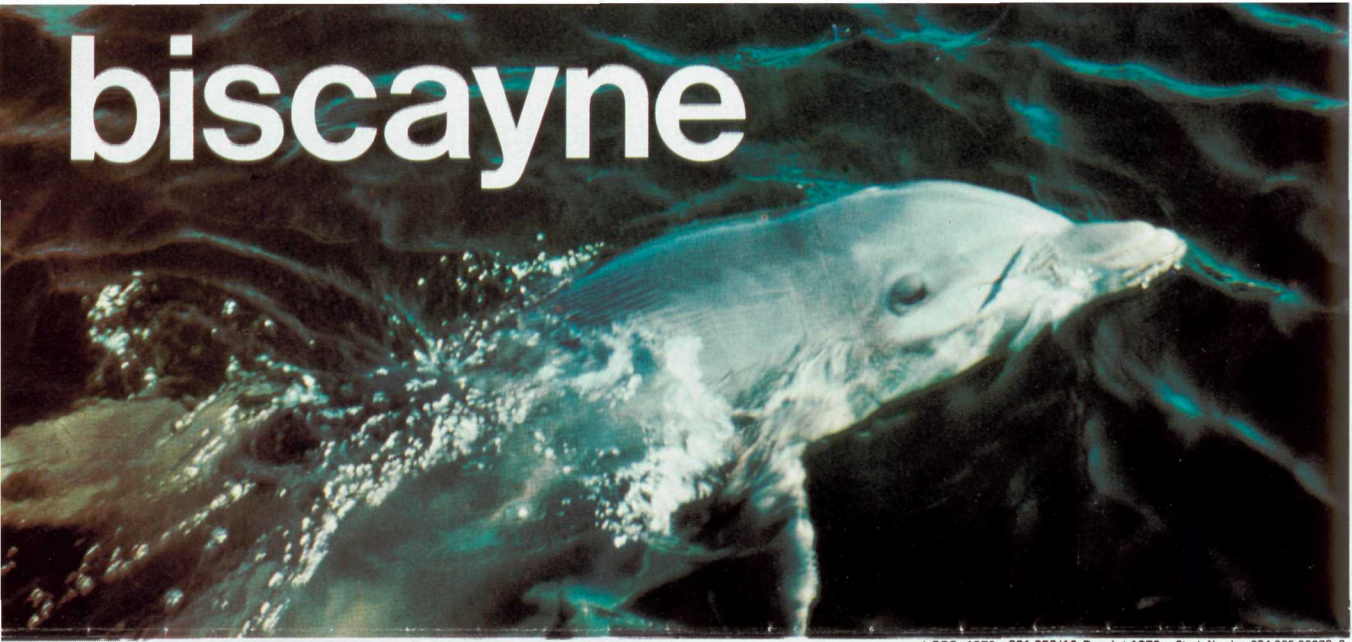


biscayne



Above the Surface—sunlight sparkling and dancing on blue waters; islands, long and narrow, floating offshore; green trees waving along the shoreline, and water lapping gently against small fishing boats and pleasure yachts.

Down Below—brightly colored fishes swimming gracefully and sea plants swaying ceaselessly as the waters wash the many-colored corals.

All of these delights of the sea are yours to discover at Biscayne National Monument, for the greater part of the park's 42,120 hectares (104,000 acres) is water and reef. Here you can gain an understanding of a complex and fascinating geologic-biologic process—the building of a coral reef. Here, too, on the land and in the water, you can find communities of plants and animals of both the temperate and tropic zones.

Corals—the Magnificent Builders

These limestone reefs owe their existence to groups of animals and plants that deposit calcium around themselves as a protective shell. The park's reefs are made up predominantly of the marine animal "coral," both living and dead, but calcareous algae (plants) and bryozoans (animals) also contribute to the process.

Lime building of the corals progresses best at temperatures of 20°C (68°F) and warmer. Besides warm water, corals require moving salt water, a firm foundation to start on (succeeding generations build on top of the limestone "houses" of their ancestors), and water no deeper than 60 meters (200 feet). The Biscayne reefs, which continue southward into John Pennekamp State Park and the southern Florida Keys, lie in waters generally no deeper than 12 meters (40 feet).

In a very real sense, many of the plants and animals exist here because the coral reefs provide them with food, protection, and places to rear their young. Indeed, the great variety of life in the coral reefs furnishes sustenance for all—those that prey and those preyed upon.

Among the colorful fishes here are grunt, porkfish, wrasse, queen angelfish, and neon gobies. Sponges, sea "grasses," hard corals—and their plantlike relatives the sea feathers and sea whips—cover the bottom. Algae are common marine plants, taking many different shapes and ranging from blue-green and green to dull reds and browns.

Bay Side and Ocean Side

In the waters off the southern coast of Florida, low islands or reefs are called "keys." The park has about 25 such keys forming an almost continuous north-south chain. Woody vegetation covers them almost completely. Mangroves invade the sea along much of the shoreline, and a surprising variety of tropical hardwoods dominates the higher interior. Rapidly returning second growth is recreating much of the hardwood forest that was disturbed or destroyed by early inhabitants. There are some remnant stands of larger trees, including mahoganies.

The keys are home to such land mammals as the raccoon, marsh rabbit, and the exotic Mexican red-bellied squirrel. Water birds are common to the area, and Arsenicker Keys are nesting sites for many of these birds.

A well sheltered section of Florida's Biscayne Bay lies between the keys and the Florida coast. Its waters, averaging 2.5 to 3 meters (8 to 10 feet), shoal to shallow banks on each side that average 1 to 2 meters (3 to 5 feet). The Intracoastal Waterway crosses the bay north to south. East of the keys, the ocean floor slopes gently to depths of 3 to 5 meters (10 to 15 feet) in Hawk Channel—a natural safe passage for larger boats traveling up and down the keys. Seaward of Hawk Channel is a wide band of highly varied subaquatic terrain consisting primarily of coral patch reefs and turtle grass. The protective outlying barrier reefs are just inside the park's eastern boundary. Beyond these reefs, the ocean floor drops off rapidly into the depths of the Florida current (Gulf Stream).

Submerged Reefs, Shipwrecks, and Pirates

The old shipping routes of European powers, especially Spain and England, passed close to the Florida Keys, and in later years schooners trading along the coast picked their way through these waters. Voyages of the early sailing ships were always fraught with danger. Strong currents and high winds, storms and violent hurricanes, and the ever present reefs and shoals made passage through the Florida Straits risky business, to say the least.

But natural dangers weren't the only threat to coastal sailors. Pirates lurked among the keys waiting to pounce upon ships crippled by the sea, turning those disasters to their own sinister advantage. Caesar Creek—named for that notorious pirate of the Florida Keys, Black Caesar—reminds us of those turbulent days.

Even more vivid reminders are the shipwrecks lying below the waters—some dating back to the relatively primitive sailing ships of the 16th century. Some shipwrecks, though, are much more recent, giving us fair warning that despite our modern equipment, we're still at the mercy of the sea's hidden reefs and sudden storms.

What to do at the Park

You can enjoy a variety of water-oriented sports here—primarily in or from a boat. Because no public boat transportation is provided, you must have either your own or a hired boat to explore the keys and to swim and dive.

We suggest that you stop at park headquarters on Convoy Point—14.5 kilometers (9 miles) east of Homestead, Fla.—or at the ranger station on Elliott Key; park personnel can answer your questions and help you plan your visit.

Boating and fishing are the most popular pastimes. There's a boat launching ramp near park headquarters at Convoy Point, and a small marina at Elliott Key Harbor. Fishing is permitted in accordance with Florida law; no fishing license is required for saltwater fishing.

Swimming, snorkeling, and scuba diving are also popular, and one of the most exciting things you can do here is investigate a typical patch reef. Four such reef areas, including one shipwreck, are marked by mooring buoys, where you can tie your boat and explore. These reefs are 3 to 5 kilometers (2 to 3 miles) east of Elliott Key and Old Rhodes Key; detailed information and maps are available at park headquarters and at the ranger station on Elliott Key.

Other interesting areas to explore are the creeks, narrow cuts, and channels between the keys, where mangroves usually grow down to the water's edge. Their roots create strange and eerie underwater patterns. Be cautious of the strong tidal currents in these areas.

Because most of the shoreline in the park is exposed, rough, coral rock, there are few sandy beaches from which to swim. Also, there are no guarded swimming areas.

Please observe all the basic rules for safety in the water, especially the first rule—Never Swim or Dive Alone. Also, it's best to leave a boat operator on board while others are in the water.

Inexperienced divers are urged to obtain professional training and to learn well the guidelines of snorkeling and scuba diving.

Camping, picnicking, and hiking are land activities you can enjoy on Elliott Key.

Accommodations and Services

In the park. Facilities at Elliott Key Harbor, besides boat slips, include a ranger station with first aid, primitive campground (30-day limit), picnic area, interpretive trail, restrooms, and saltwater showers. A snack bar concession is available on weekends. Emergency gasoline is available throughout the week but is very limited and is expensive. **FRESHWATER IS NOT AVAILABLE.**

Outside the park. Meals, lodging, campgrounds, gasoline, and other supplies are available in Homestead. Many well-supplied marinas are located along the mainland coast and in the Florida Keys. Check your charts or ask a park ranger.

Nearby places of interest. Everglades National Park is about a half-hour drive south from Convoy Point Headquarters. John Pennekamp Coral Reef State Park can be reached by driving south on U.S. 1.



French Angelfish

Aids to Navigation

Use these symbols and map on reverse side only as supplements to official navigational aids and charts.

CHANNEL BUOY GUIDE

Entering port or going upstream

3 Port Side
Color: Black
odd numbers

A Mid-Channel
Color: Black & White
no numbers

2 Starboard
Color: Red
even numbers

REGULATORY MARKERS

Diamond Shape with cross means Boats Keep Out

Diamond Shape warns of Danger

Circle marks Area Controlled "as indicated"

Diver's Flag indicates presence of a diver

STORM WARNINGS

Red Flag Small craft (winds to 38 mph)

2 Red Flags Gale (up to 54 mph)

Square Red Flag Black Box (whole gale)

2 Square Red Flags Black Box (Hurricane)

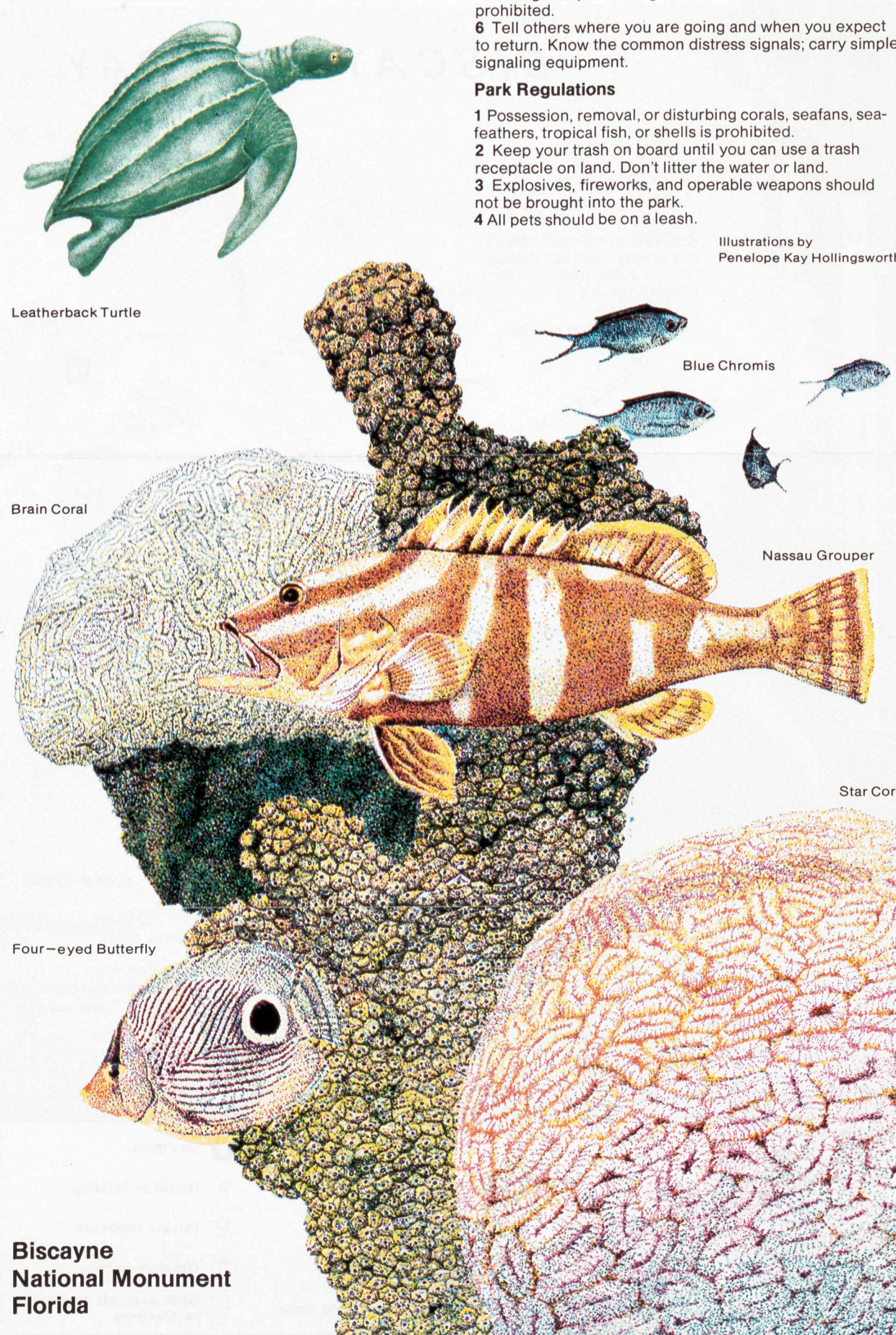
Telephone 661-5065 for National Weather Service taped forecast; Radio 162.55 MHz for marine weather broadcasts.

Safety in the Water

Snorkelers and scuba divers must prominently display the regulation diver's flag, and they must take down the flag when all are once again on board. All swimmers and divers should be wary of other boats.

Cuts from coral and punctures from the common spiny sea urchin may be painful and slow to heal. A good practice is to enjoy the reef with this in mind: **LOOK ONLY, TOUCH NOTHING.** All water life should be treated with respect.

Boaters and skiers should always exercise caution in approaching any moored boats or other areas where swimmers or divers may be expected to be in the water. Water skiers must wear a lifesaving device.



Leatherback Turtle

Brain Coral

Four-eyed Butterfly

Blue Chromis

Nassau Grouper

Star Coral

Illustrations by Penelope Kay Hollingsworth

Safety on Board

Be familiar with "Rules of the Road" for boating and be aware of potential dangers.

You are safest with an experienced guide, and navigational charts 1249 and 11451 are indispensable for shallow waters of bay and reef area. Watch for banks, shoals, and coral reef patches, which can be hazardous to even the smallest boat.

You are responsible for your boat's wake and any damage it may cause.

Presailing Checklist

- 1 Check the weather; rough weather means rough water. Seek a protected cove in sudden thunderstorms.
- 2 Be sure you have enough fuel for a round trip and that fuel vapors are dispersed before you start your engine.
- 3 A U.S. Coast Guard-approved personal flotation device (PFD) must be aboard and easily available for each person.
- 4 Remember that how you load a boat has an effect on its stability. Keep the load low; don't overload; don't stand up in a small boat.
- 5 Riding on open bow, gunnels, or transom of the boat is prohibited.
- 6 Tell others where you are going and when you expect to return. Know the common distress signals; carry simple signaling equipment.

Park Regulations

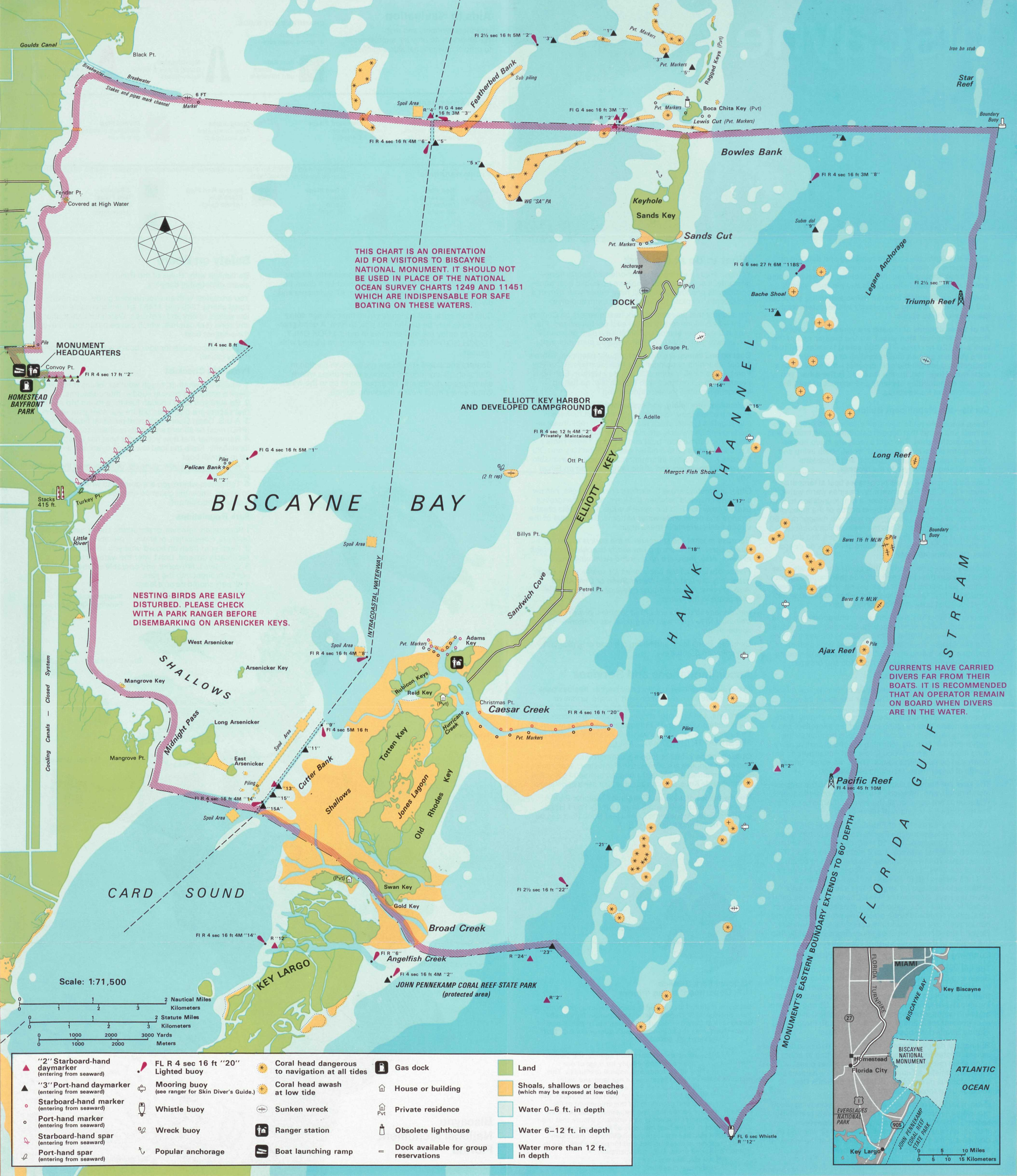
- 1 Possession, removal, or disturbing corals, seafans, seafeathers, tropical fish, or shells is prohibited.
- 2 Keep your trash on board until you can use a trash receptacle on land. Don't litter the water or land.
- 3 Explosives, fireworks, and operable weapons should not be brought into the park.
- 4 All pets should be on a leash.

National Park Service U.S. Department of the Interior

Biscayne National Monument is administered by the National Park Service, U.S. Department of the Interior. Park headquarters is at Convoy Point, 14.5 kilometers (9 miles) east of Homestead, Fla.; the superintendent's address is P.O. Box 1369, Homestead, FL 33030.

As the Nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering the wisest use of our land and water resources, protecting our fish and wildlife, preserving the environmental and cultural values of our national parks and historical places, and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to assure that their development is in the best interests of all our people. The Department also has a major responsibility for American Indian reservation communities and for people who live in Island Territories under U.S. administration.

Biscayne National Monument Florida



THIS CHART IS AN ORIENTATION AID FOR VISITORS TO BISCAYNE NATIONAL MONUMENT. IT SHOULD NOT BE USED IN PLACE OF THE NATIONAL OCEAN SURVEY CHARTS 1249 AND 11451 WHICH ARE INDISPENSABLE FOR SAFE BOATING ON THESE WATERS.

NESTING BIRDS ARE EASILY DISTURBED. PLEASE CHECK WITH A PARK RANGER BEFORE DISEMBARKING ON ARSENICKER KEYS.

CURRENTS HAVE CARRIED DIVERS FROM THEIR BOATS. IT IS RECOMMENDED THAT AN OPERATOR REMAIN ON BOARD WHEN DIVERS ARE IN THE WATER.

- | | | | | |
|--|---|---|---|--|
| ▲ "2" Starboard-hand daymarker (entering from seaward) | ● FL R 4 sec 16 ft "20" Lighted buoy | ⊛ Coral head dangerous to navigation at all tides | 🛢 Gas dock | 🟩 Land |
| ▲ "3" Port-hand daymarker (entering from seaward) | ⚓ Mooring buoy (see ranger for Skin Diver's Guide.) | ⊕ Coral head awash at low tide | 🏠 House or building | 🟡 Shoals, shallows or beaches (which may be exposed at low tide) |
| ○ Starboard-hand marker (entering from seaward) | 📣 Whistle buoy | ⚓ Sunken wreck | 🏠 Private residence | 🟢 Water 0-6 ft. in depth |
| ○ Port-hand marker (entering from seaward) | 🚢 Wreck buoy | 🚒 Ranger station | 🏠 Obsolete lighthouse | 🟣 Water 6-12 ft. in depth |
| ○ Starboard-hand spar (entering from seaward) | ⚓ Popular anchorage | 🚢 Boat launching ramp | 🏠 Dock available for group reservations | 🟠 Water more than 12 ft. in depth |
| ○ Port-hand spar (entering from seaward) | | | | |

