

Exploring Buck Island Reef

Protect Your Park

Protect Buck Island's reefs and its endangered species by following all regulations. Prohibited in the entire national monument are: fishing, fishing gear, collecting any plant or animal, waterskiing, jetskiing, spearfishing, overnight stays on the island, or anchoring in the lagoon (see large map below). Boats must pick up a day-use mooring. Scuba diving is prohibited at the underwater trail but allowed at the two scuba moorings in the north lagoon.

Before setting out, get information and park regulations at the National Park Service visitor contact station at Christiansted National Historic Site. On Buck Island, kiosks at

West Beach and the Diedrichs Point shelter post the regulations.

Corals are not rocks but fragile skeletons. Do not stand or hang on corals. Do not feed the fish.

On the Island Buck Island closes to visitors at sunset. Pets, vehicles (except wheelchairs), artificial light, camping, glass containers, generators, and loud noises are prohibited. No digging on beaches; tent poles, beach umbrellas, and stakes are not allowed.

Build fires only in the grills that are provided by the National Park Service at picnic areas.



Boats operated by authorized concessioners anchor at West Beach for snorkeling practice



Sandy Point orchid

Safety and Other Tips for Sea and Shore

Local custom and town ordinances require that you wear shirts or coverups in Christiansted. Bathing suits alone are not acceptable. Avoid sunburn hazard: Use sunscreen (SPF 30 minimum) and wear a hat and coverup clothing. On an average tour to Buck Island you are exposed to sunlight for four hours. That is enough time to get a severe sunburn, even though the trade winds may give you the illusion of being cool. Bring a bathing suit, foot gear (topsiders, sandals, or flip-flops), and a towel.

A concrete pier used for National Park Service operations and for off-loading passengers provides wheelchair access to Buck Island.

Reef and Marine Hazards Shallow reefs near shore have sharp corals, spiny sea urchins, fire coral, fire worms, and barbed snails. Cuts from marine organisms infect quickly: Seek medical attention right away.

Portuguese man-o-war and sea wasps, both stinging jellyfish, are rarely found here. Barracuda, stingrays, and sharks are marine wildlife, and are not usually aggressive toward swimmers and snorkelers. Treat them with caution.

Hazards Ashore Stay on the beach or designated trail to avoid hazardous plants. The hiking trail is steep, with loose stones.

Contact with poisonous manchineel trees (sap, leaves, bark, or the fruit resembling small green apples) causes chemical burning. Touching your eyes after such contact causes swelling or blindness. Christmas bush looks like holly but causes contact dermatitis, and stinging nettle is painful.

Several other trees and cactuses and other plants bear thorns or barbed hairs to avoid. Beware of centipedes, scorpions, biting spiders, and ants. The National Park Service recommends that you stay on the designated hiking trail and do not stray off the path—to prevent coming into contact with hazardous native plants.



Manchineel tree and its poisonous apples (top). Avoid Christmas bush (above): Its oils cause blistering rash like its cousin poison ivy



What's Happening at Buck Island and Its Reef

Authorized concessioners, under contract with the National Park Service, offer trips to Buck Island from St. Croix daily. Reserve trips by phone or website or in person. Visit the park website for current information on the tours.

Snorkeling Beginners can snorkel Buck Island's coral grottoes after a short lesson from the boat crew. You will be guided through the underwater trail—closed sunset to sunrise. Maximum water depth in grottoes is 12 feet. Always snorkel with a buddy and keep well in front of moored boats. Scuba diving is allowed in the Monument only at two designated scuba moorings: shallow, 30- to 40-foot dives go through magnificent haystack formations of elkhorn coral.



Walking Trails A hiking trail from either Diedrichs Point or the West Beach picnic area crosses the island (45 minutes at a walking pace). Wear shoes and a shirt and bring drinking water. From West Beach the trail goes through low-lying beach forest up the gentle hillside with turpentine and pigeon-berry trees to the island crest. A side trail takes you to an observation point with panoramic views of coral reef and darker, deeper water farther out, where the island's underwater shelf falls off into the Puerto Rico Trench's west branch. The main trail goes down the south side in small switchbacks through frangipani trees, organ pipe cactus, and bromeliads. It ends at Diedrichs Point for an easy walk on the shoreline back to West Beach.

For the less energetic, West Beach trail offers a hike through a manchineel forest to giant tamarind and sandpaper trees. Return via the water's edge to the picnic area.

Research and Monitoring For over 40 years National Park Service managers and scientists have studied Buck Island, working to restore the natural ecosystem that has been altered by impacts of human use, overfishing, the devastating effects of hurricanes, and human-caused disasters—ship groundings, pollution, or oil spills. The National Park Service has removed exotic species, predators like the mongoose and tree rat, and invasive plants and re-introduced native plants and animals missing for 200 or more years.

With Marine Protected Area status, Buck Island's fishery will again grow and the coral reef may eventually regain its health.

Hurricanes force long-term, dramatic changes in both island and marine systems. They can kill beach forest and disrupt coastal hawksbill turtle nesting areas. Storm waves can destroy the barrier reef or push it landward. Monitoring these impacts on coral reef, sea turtles, and fishes will help us understand how global climate change affects these Caribbean island treasures.

Private Boating To take your own boat to Buck Island, first get information and your anchoring permit at the National Park Service

visitor contact station in Christiansted. Vessels over 42 feet should anchor at West Beach and visit the underwater trail by dinghy.

Picnic Areas West Beach and Diedrichs Point offer picnic tables, charcoal grills, and vault toilets. Diedrichs has a 20- x 20-foot shelter.

Take all trash off the island with you. Firewood may not be gathered on the island. Do not empty grill ashes on the ground; this soils the white beach and attracts biting ants. Put cooled ashes in container or plastic bag and take them off the island. If you must leave ashes that are not cooled, extinguish them with sand and leave them in the grill.

U.S. Virgin Islands National Park System Areas

Other Sites on St. Croix Christiansted National Historic Site preserves Danish-era architecture, and Salt River Bay National Historical Park and Ecological Preserve offers tropical land and water ecosystems and evidence of 2,000 years of human history.

More Information National Park Service 2100 Church St., #100 Christiansted VI 00820-4611 340-773-1460 or www.nps.gov/buis CHRI_Superintendent@nps.gov

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Uninhabited Buck Island, 6,000 feet long, 2,500 feet wide, rises 328 feet above sea level, 1½ miles from the island of St. Croix. The 19,015-acre Buck Island Reef National Monument includes the 176-acre tropical dry forest island and 18,839 acres of submerged land and coral reef system. Proclaimed a national monument in 1961 by President John F. Kennedy, it was expanded in 2001 to preserve one of the Caribbean's finest marine gardens. Endangered and threatened species live and nest here: four species of sea turtles—hawksbill, green, leatherback, and loggerhead—and the St. Croix ground lizard. Elkhorn coral, the first listed marine invertebrate, surrounds two-thirds of the island. Elkhorn coral patch reefs rise to the surface from the seabed as much as 40 feet below. Prehistoric people would canoe from St. Croix and camp on the beach, likely to fish and gather sea turtle eggs and conch. In the 1700s and 1800s the Danish government set up a signal station on the island's highest peak. A signal keeper, his family, and enslaved workers lived nearby.

LARGE PHOTO © STEPHEN FRANK

Coral Reefs

Coral reefs are complex invertebrate colonies of animals called polyps. Each tiny polyp produces a carbonate skeleton that results in massive, but fragile formations. Filter feeders, polyps eat floating plankton they trap in their tentacles. As polyps die, new ones grow on their remains to expand the reef. Polyps and the algae (*zooxanthellae*) living in them have a mutually beneficial relationship enabling coral reefs to support a great diversity of animal and plant life. Rich with life, coral reefs have existed for millions of years. They are as ancient as rain forests.



Spiny lobsters hide by day and feed at night. Its chitin content makes the shell hard. In the ancient coral reef environment, ways to exploit every

niche have evolved. Here nutrients from the sea get extracted and are redistributed, and many organisms find shelter from predators.



Coral Reefs of the World

Coral reefs (*in red*) grow in tropical waters whose temperatures are over 70°F all year. The best growth occurs just a few

yards from the surface. Recently coral reefs have suffered the effects of hurricanes and diseases.

Buck Island's Barrier Reef

Buck Island Reef's underwater scene humbles human perception with its variety of shape, pattern, color, texture, and movement. Like fortress walls, thick, branching elkhorn corals rise off the seabed to dominate the underwater world.

The irregular arc of reef around Buck Island's northern and eastern shores creates a lagoon between reef and island. Wide and shallow, the lagoon is seldom over 12 feet deep, and the protecting reef moderates wave action. In these calmer waters brain corals grow larger, almost reaching the surface. Seaward of the barrier reef, elkhorn and star coral patch reefs occur around the island, except to the southwest, where seagrass beds are prevalent.



Elkhorn coral



Blue tangs (*above*) graze en masse in reef shallows. A flamingo tongue sea snail (*right*) accents a sea fan.



Coral polyp (800x)

Fragile and Endangered

Worldwide, coral reefs are disappearing quickly. They are slow-growing and vulnerable to pollution, sedimentation, overfishing, warming of the seas, and boat damage. When a coral is stressed, the coral polyps expel the internal algae that help nourish them, causing them to appear "bleached." If severely affected, the corals will die. Because corals thrive only in a narrow range of conditions, biologists see their plight as a planetary danger signal.

The national monument is protected habitat for threatened and endangered species.

Research on hawksbill turtles produces valuable information for their survival in the Caribbean. Human introduction of mongooses and rats, exotic species, may have wiped out the St. Croix ground lizard, which was recently reintroduced on the island (*right*).



Endangered hawksbill, leatherback, and green sea turtles (*left to right*) are protected by law. Every two to three summers they migrate here to nest in shoreline forests and on beaches. A

female hawksbill may spend up to 60 minutes ashore, selecting a nest site, digging the egg chamber, laying some 140 eggs, and returning to the sea after carefully covering her nest. Two

months later hatchlings emerge and crawl to the sea. Please do not disturb nesting turtles or birds.

Buck Island Reef National Monument is a Marine

Protected Area. No fishing or taking of animal or plant life is allowed.

Do not collect or even disturb artifacts. They are important pieces of history. Please tell a

park ranger what you saw and where you saw it. All artifacts are protected by federal law, and they teach us more if left in place.

Least tern

Buck Island Reef National Monument is one of over 390 parks in the National Park System. To learn more about national parks and National Park Service programs in America's communities visit www.nps.gov.

Brown pelicans
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