

# North Cat Island

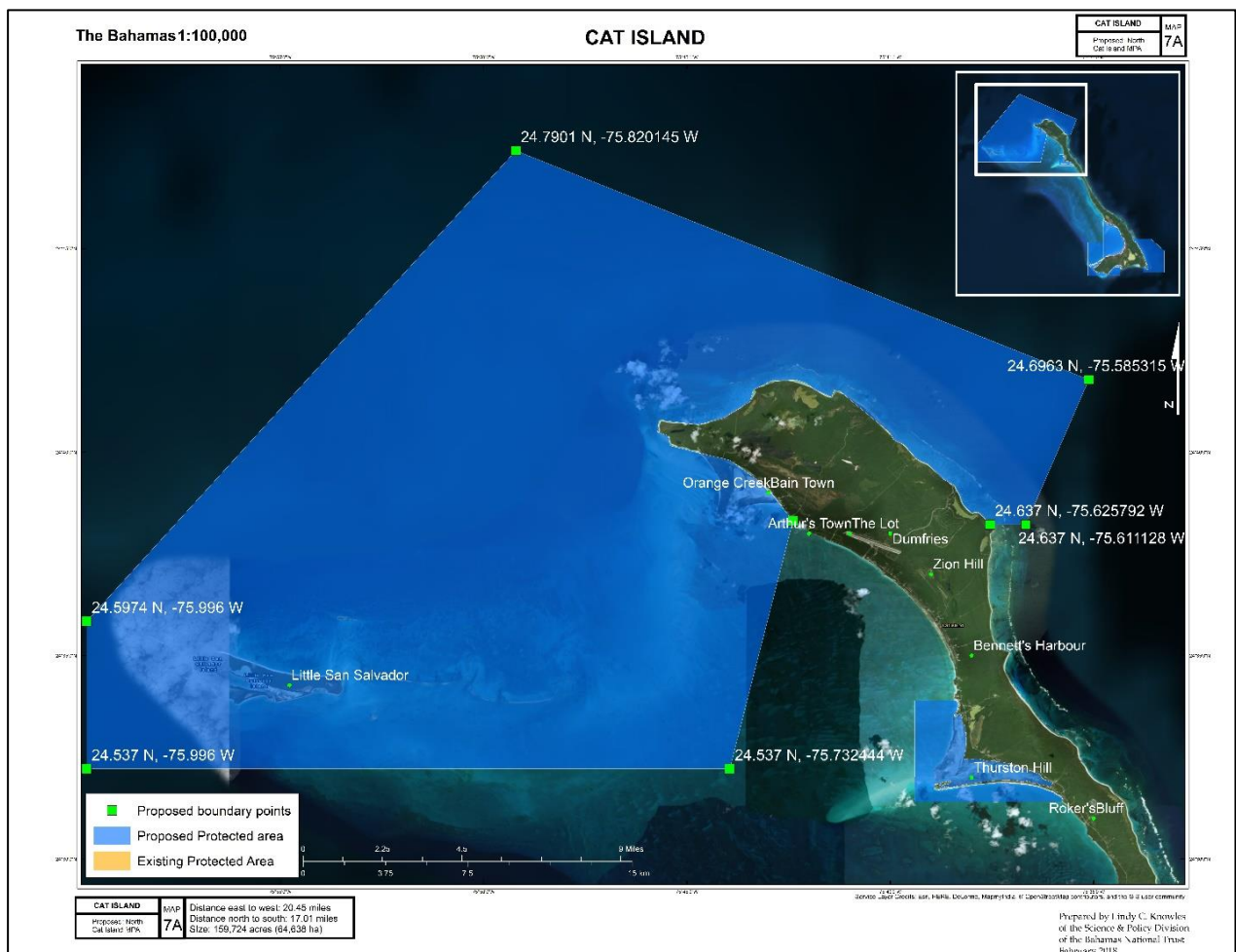
**Size:** 159,724 acres

**Conservation Targets & other resources:** mangroves, seagrass, sandy beaches, rocky shore, tidal creek, sand/mud, marine mammal area, Kirtland's warbler, roseate tern, Important Seabird and Marine Bird species (marine IBA), turtle habitat, fish spawning aggregation site, bonefish flats, hardbottom, blue holes, nursery grounds, sand/mud, patch reef, important deep water features, land crabs, endemic plants

**Location:** North Cat Island, includes Port Royal/Orange Creek, and waters surrounding Little San Salvador (or Half Moon Cay)

**Threats:** Invasive species (Australian pine or casuarina's), unsustainable development (hotel and marina), dredging, sedimentation, illegal, unregulated and unsustainable (IUU) fishing, land clearing, poaching from foreign fishing vessels, climate change (bleaching and coral diseases)

**Proposed Management:** Zoned for multiple-uses, to allow harvesting of land crabs, catch-and-release fly-fishing, harvesting of tops, and small-scale fishing



**Site Description.** This proposed area incorporates sites proposed by the communities of Cat Island (Port Royal & Orange Creek), in addition to the area identified as an Area of Interest (AOI) in the 2017 Ecological Gap Analysis, and takes into consideration the environment as well as stakeholder opinion. This proposed site protects large areas of mangrove forests that are crucial nursery grounds for many commercial and ecologically importance fish species. The deeper water is an important corridor for larger pelagic fish species that move in and out of the Exuma Sound.

**Rapid Ecological Assessment Results.** The REA (terrestrial and marine) for Port Royal/Orange Creek was conducted in May 2017 with support from Cat Island United partners and local Fisheries Officers. A total of fifty (50) sites were surveyed, to observe and record the structure and composition of marine habitats. The wetland area is dominated by Red Mangroves (*Rhizophora mangle*), that create islands and an interconnected network of 1-2m high trees directly in saltwater. Schools of the economically important species, bonefish (*Alba vulpes*), were observed during field assessments. The proposed site includes the marine IBA of Tee Cay, Goat Cay and Long Rocks, important for breeding populations of Roseate tern (*Sterna dougalli*) with 33 to 237 individuals documented (Irizarry & Wege, 2016).

The coastal areas are classified by coastal shrubland, which dominates most of the landscape on the Orange Creek Peninsula. Terrestrial surveys recorded 71 species in 65 genera and 38 plant families, including 3 endemic plants; the endemic orchid (*Encyclia correllii*), *Varronia bahamensis*, and *Heliotropium nanum* were recorded for the site, and 2 invasive species; *Casuarina equisetifolia* (Casuarina) and *Scaevola taccada* (Hawaiian inkberry).

**Opportunities:** Establishment of a well-managed protected area in North Cat Island can facilitate many opportunities for Cat Island residents and address a number of threats to the area, such as, the invasive *Casuarina equisetifolia* and *Scaevola taccada*. These plants can be removed from coastal communities to prevent further damage to the dune ecosystem and allow native coastal vegetation to re-establish itself. Casuarina wood can be used to build sturdy furniture pieces, or can be harvested to support a coal industry. This site can facilitate the protection of the endemic *Encyclia correllii* orchid habitat.

Currently, the area is used for crabbing, diving, bonefishing, small-scale fishing and farming (nearby). The creation of a trail system can provide nature experiences with birding, bike riding, camping, nature walks, beach access, and kayaking within the creek. This site can also allow continued access for sustainable harvesting of land crabs and thatch palm by local residents. Protection of this site may also promote the growth of conch populations considering the presence of suitable habitat.

## Alligator Creek

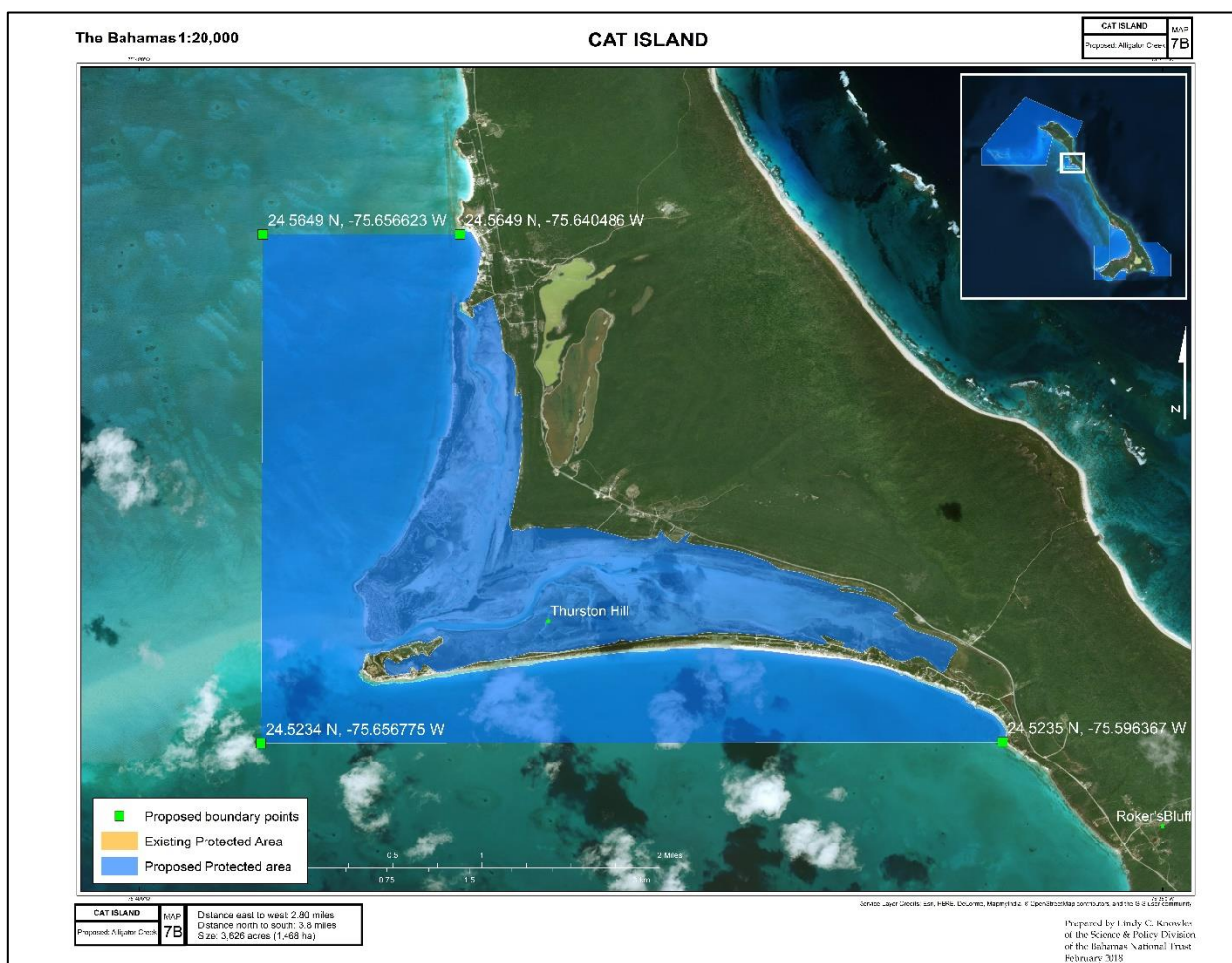
**Size:** 3,627 acres

**Conservation Targets & other resources:** Mangroves, sandy beaches, rocky shores, seagrass, sand/mud, turtle habitat and tidal creeks

**Location:** Northwest Cat Island, Bennett's Harbour Settlement

**Threats:** Unsustainable development, improper farming practices nearby

**Proposed Management:** Zoned for multiple uses, to allow catch-and-release bonefishing and hand-line fishing by locals



**Site Description:** Named after the shape of the creek, Alligator Creek is a creek system situated on the leeward (western side) of Cat island, close to the northern tip of the island. It is bordered by Bennet's Harbour in the north and Pigeon Cay to the south. The system is primarily a tidal creek system surrounded by low-lying terrestrial portions. This community proposed site at Alligator Creek is known for high populations of sea turtles, with more than a dozen green turtles observed within the creek area.

**Rapid Ecological Assessment Results.** The REA (terrestrial and marine) for Alligator Creek was conducted in May 2017, with support from Cat Island United partners and local Fisheries Officers. Forty-one (41) marine sites were surveyed, to observe and record the structure and composition of marine habitats. Red Mangrove (*Rhizophora mangle*) communities dominate this creek system, both along its borders and forming islands. The shallow banks of the creek extend into a flat, xeric habitat, which are inundated with seawater during storm surges. Transitioning between the Red Mangrove communities within the creek to the dry flats are the other mangrove species. The mangrove forests at this site are home to large populations of snappers and other fish species. A total of 30 fish species from 15 families were recorded at this site. This site contains high numbers of green turtles, previously surveyed and documented by representatives from the Bahamas Sea Turtle Network.

The coastal habitat of the Alligator Creek site alternate between coastal rock and sandy shore communities. Terrestrial surveys recorded 37 plant species within 37 genera and 27 families, including one endemic orchid, the *Encyclia correlli*, and two invasive species, *Casuarina equisetifolia* (Casuarina) and *Scaevola taccada* (Hawaiian inkberry) in the Alligator Creek area. Antillean Nighthawk eggs were observed on rocky shoreline at Alligator Creek site.

**Opportunities:** Protection of this site can facilitate removal of invasive *Casuarina equisetifolia* and *Scaevola taccada* from coastal communities to prevent further damage to the dune ecosystem and allow native coastal vegetation to re-establish itself. This site can protect habitat for the endemic *Encyclia correllii* orchid.

Currently, the area is used for crabbing, diving, birding, bonefishing, small-scale fishing, kayaking, guided tours, and harvesting of silver top palms, all of which can co-exist with a land and sea protected area, where sustainable practices can be intertwined. The creation of trail system can enhance eco-tourism activities, and improved access can allow access for sustainable harvesting of thatch palms by local residents. This site provides an excellent opportunity for learning in an outdoor classroom setting, and support research on bonefish for a mark and recapture experiment on the resident bonefish population.

## Fernandez Bay Creek & Joe Sound/Armbrister Creek

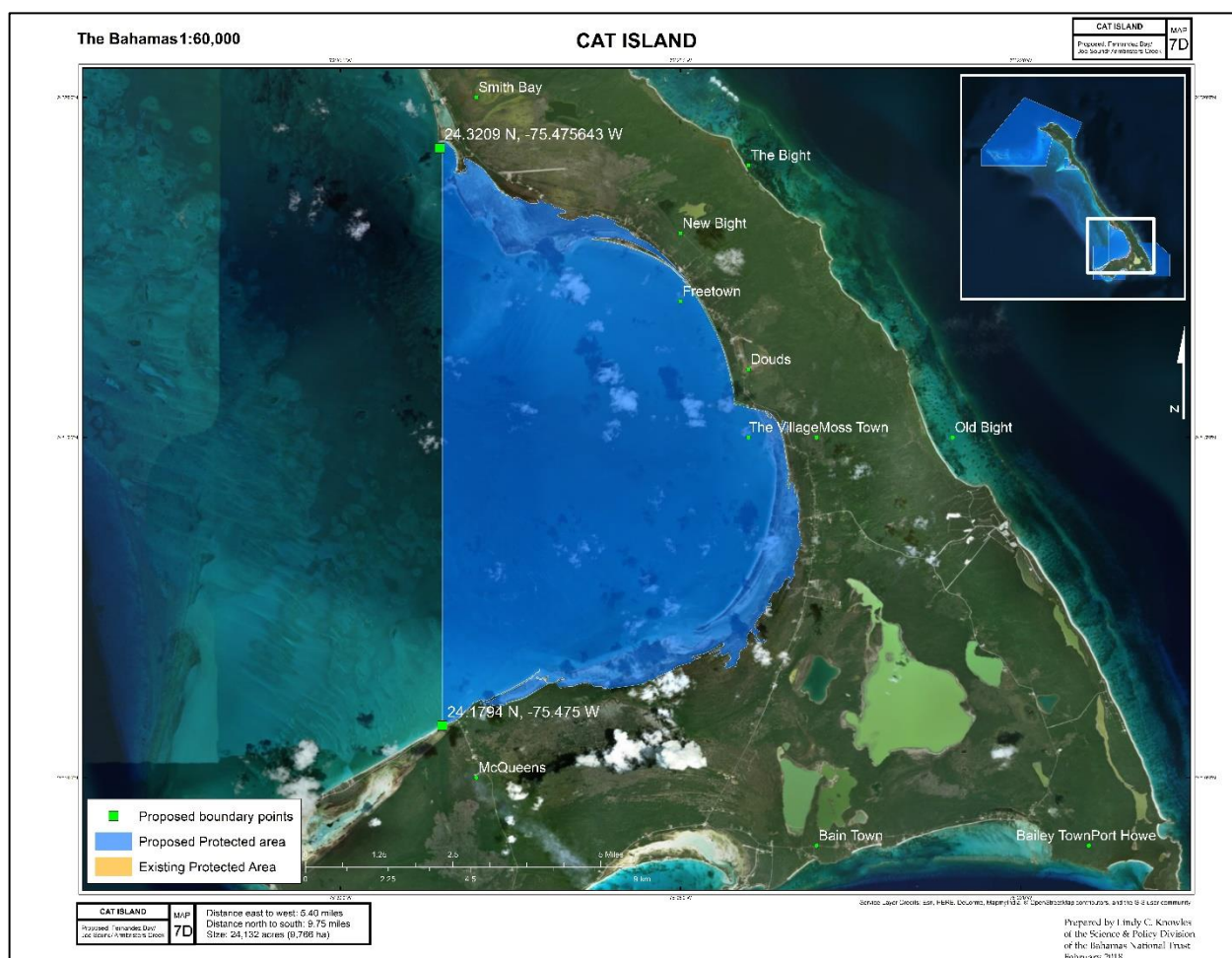
**Size:** 24,133 acres

**Conservation Targets & other resources:** sandy beach, tidal creeks, bonefish flats, seagrass, turtle habitats, blue hole, rocky shore, land crabs, shark breeding site

**Location:** Southeast Cat Island, offshore from Old Bight and Moss Town settlements

**Threats:** Proposed large-scale development, improper farming practices nearby

**Proposed Management.** To be determined following additional consultations with local stakeholders.



**Site Description.** This community proposed site is located on the lower northwest side of Cat Island, and includes three tidal creeks; Joe Sound Creek, Fernandez Bay Creek and Armbrister Creek. Armbrister Creek and Joe Sound Creek are connected, and are situated near the settlement of Old Bight.

**Justifications.** The Fernandez Bay Creek is prolific for various species of juvenile fish and sea turtles. There are also significant populations of birds, including herons, white crown pigeons, ospreys and the critically endangered Piping plovers. Armbrister Creek and Joe Sound Creek are

connected, all of which have significant bonefish and sea turtle populations. Armbrister Creek flows into the infamous “Boiling Hole”, which is a blue hole and cavern system, and one of several natural attractions for the island. Joe Sound Creek is a spawning site for nurse sharks, where spotted eagle rays are also encountered frequently. The community identified this site for its several conservation targets & other resources, and are against proposals for large development projects that can undermine the integrity of the creek systems.

**Opportunities.** Nature tours are currently taking place in this area through Fernandez Bay Village, in addition to bonefishing and land crab harvesting by local residents. Protection of this area will enhance the visitor experience with eco-tours, and preserve the integrity of the creek and blue hole system from unsustainable development projects, by promoting small-scale development.

## Hawksnest Creek

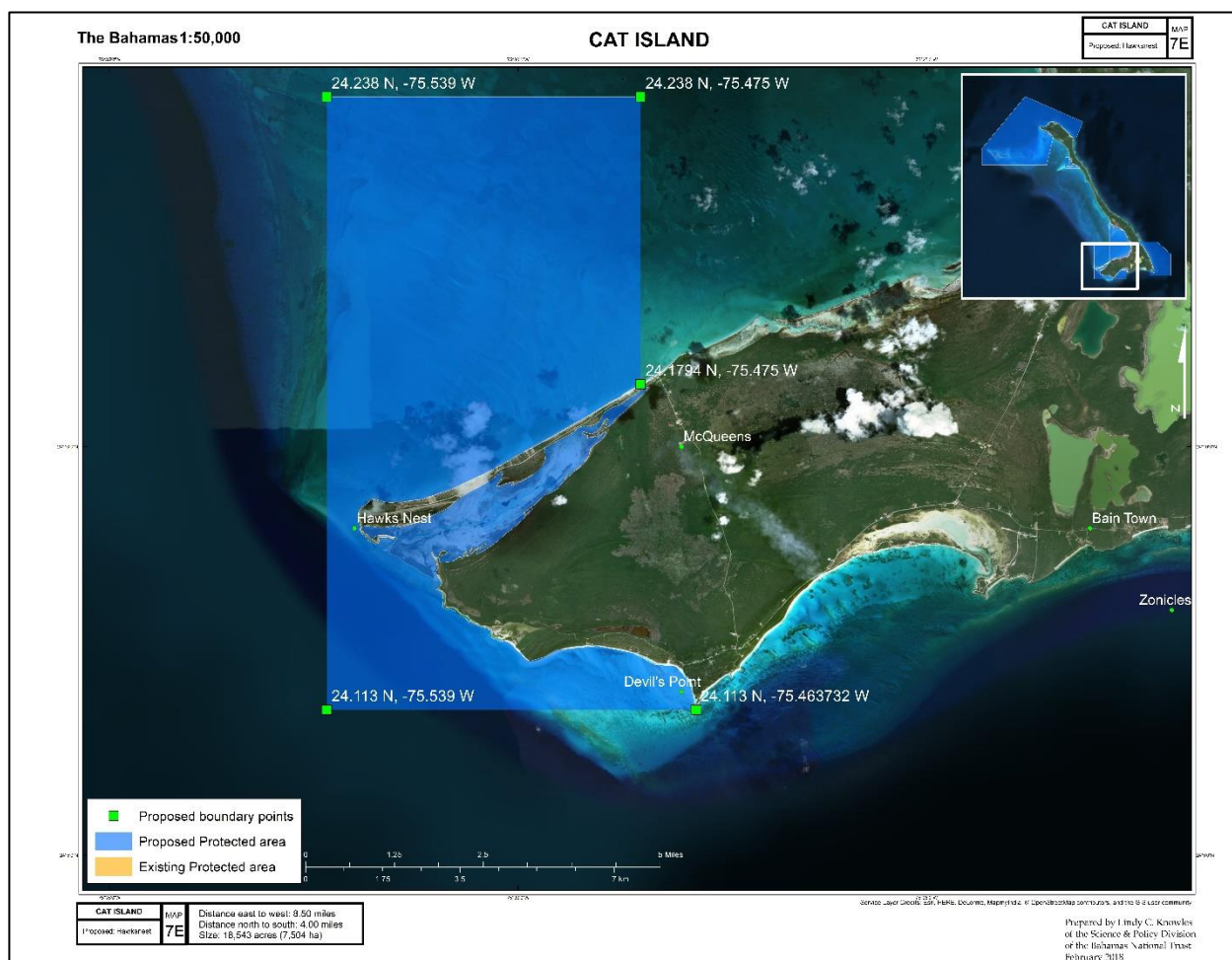
**Size:** 18,543 acres

**Conservation Targets & other resources:** Bonefish flats, deep water habitat, *marine IBA*, turtle habitat, sandy beach, seagrass, tidal creeks, sand/mud, nursery habitat for fish, conch and turtles

**Location:** Southwest Cat Island, Hawks Nest point and Devil's Point settlements

**Threats:** improper farming practices nearby, expansion of existing marina, illegal, unregulated and unsustainable (IUU) fishing

**Proposed Management:** To be determined following additional input by local stakeholders



**Site Description.** Hawksnest creek is located on the southwest tip of Cat Island at Hawks Nest Point, extending east of Devil's Point to include French Bay extending 4 miles north to south. This community proposed site seeks to protect the extensive mangrove and creek system, and nursery grounds for commercially important species of fish and conch from illegal fishing practices. This site was proposed by local communities of Cat Island, and identified as an Area of Interest (AOI) in the marine gap analysis.

**Justification.** Hawksnest has direct access to the ocean and is deeper than the other creeks in the southern parts of Cat Island. Larger sea turtles and sharks are therefore found in this creek system, in addition to a significant number of juvenile fish, especially bonefish, and bird populations.

**Opportunities.** Protection of Hawksnest Creek will promote sustainable fishing practices, and limit large-scale development projects from filling-in mangrove areas of the creek.

## Cutlass Bay Creek

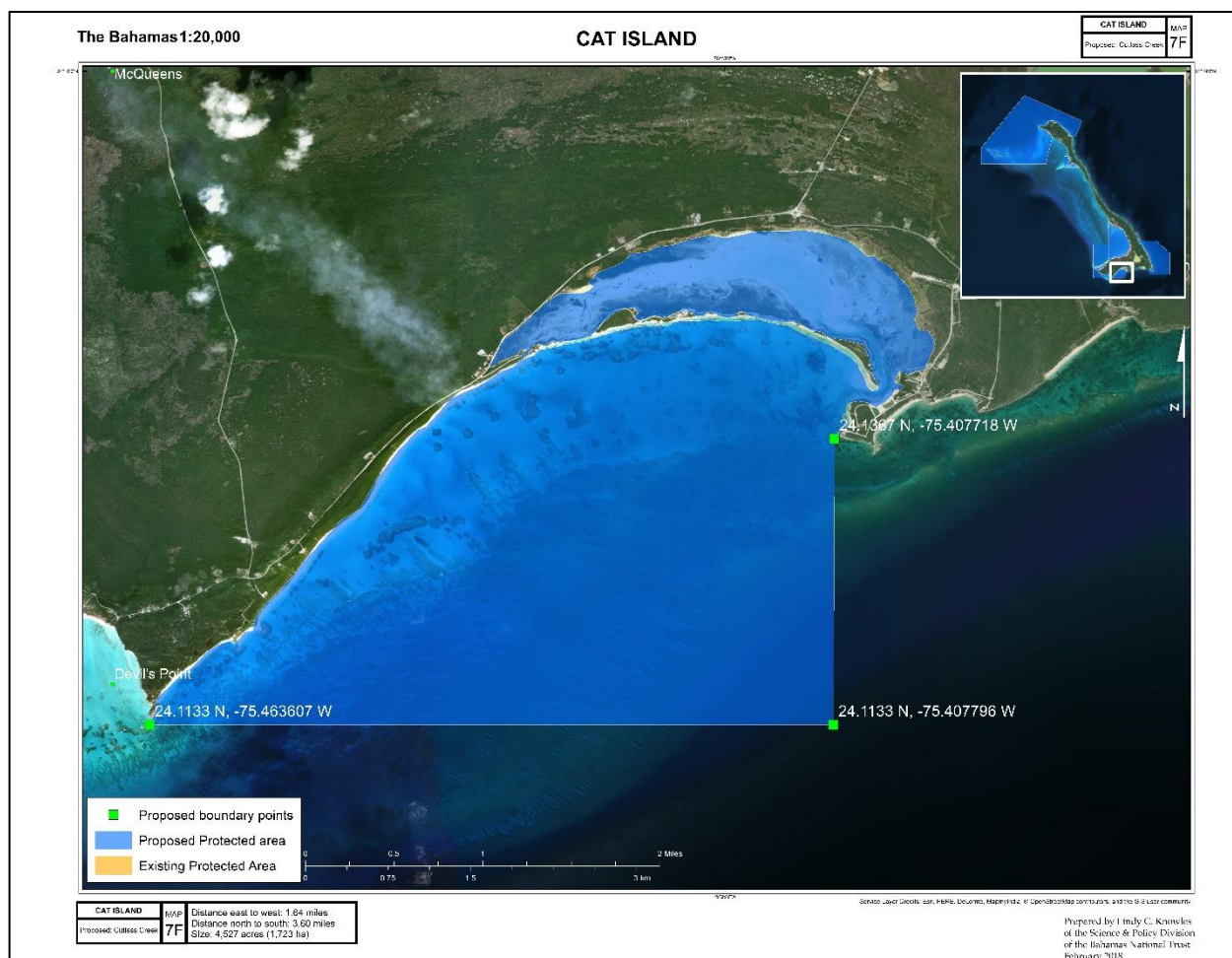
**Size:** 4,257 acres

**Conservation Targets & other resources:** Sandy beach, tidal creek, seagrass, turtle habitats, bonefish flats

**Location:** South Cat Island, between Devil's Point and Frankfort Point (Bain Town)

**Threats:** unsustainable development, dredging, sedimentation, improper farming practices

**Proposed management:** Zoned for multiple use, to allow traditional activities like bonefishing and subsistence fishing



**Site Description.** Cutlass Bay creek system is located on the southern coast of Cat Island, extending some 2 miles from Devil's Point to Frankfort Point. This community proposed site extends 3 miles offshore from Cutlass Bay, and includes the mangrove creek system currently under threat from unsustainable development. The community is not completely against development, however supports sustainable development projects that will not cause irreversible damage to the creek system of Cutlass Bay.

**Justification.** Cutlass Bay is a thriving mangrove system that protects juvenile queen conch, spiny lobster, and other reef fish that spillover to the reef just beyond the bay. Hawksbill turtles and the occasional spotted eagle ray have been observed in the area. Small groupers of a variety of species also frequent the site. The area closer to shore is used by residents for subsistence fishing for mojarra, locally called shad, and snapper. Both young and mature bonefish feed in the flats.

**Opportunities.** Community members requested this site be protected from large-scale development to ensure fishing grounds continue to be lucrative for subsistence fishing, and bonefish habitat remains intact.

## Columbus Point

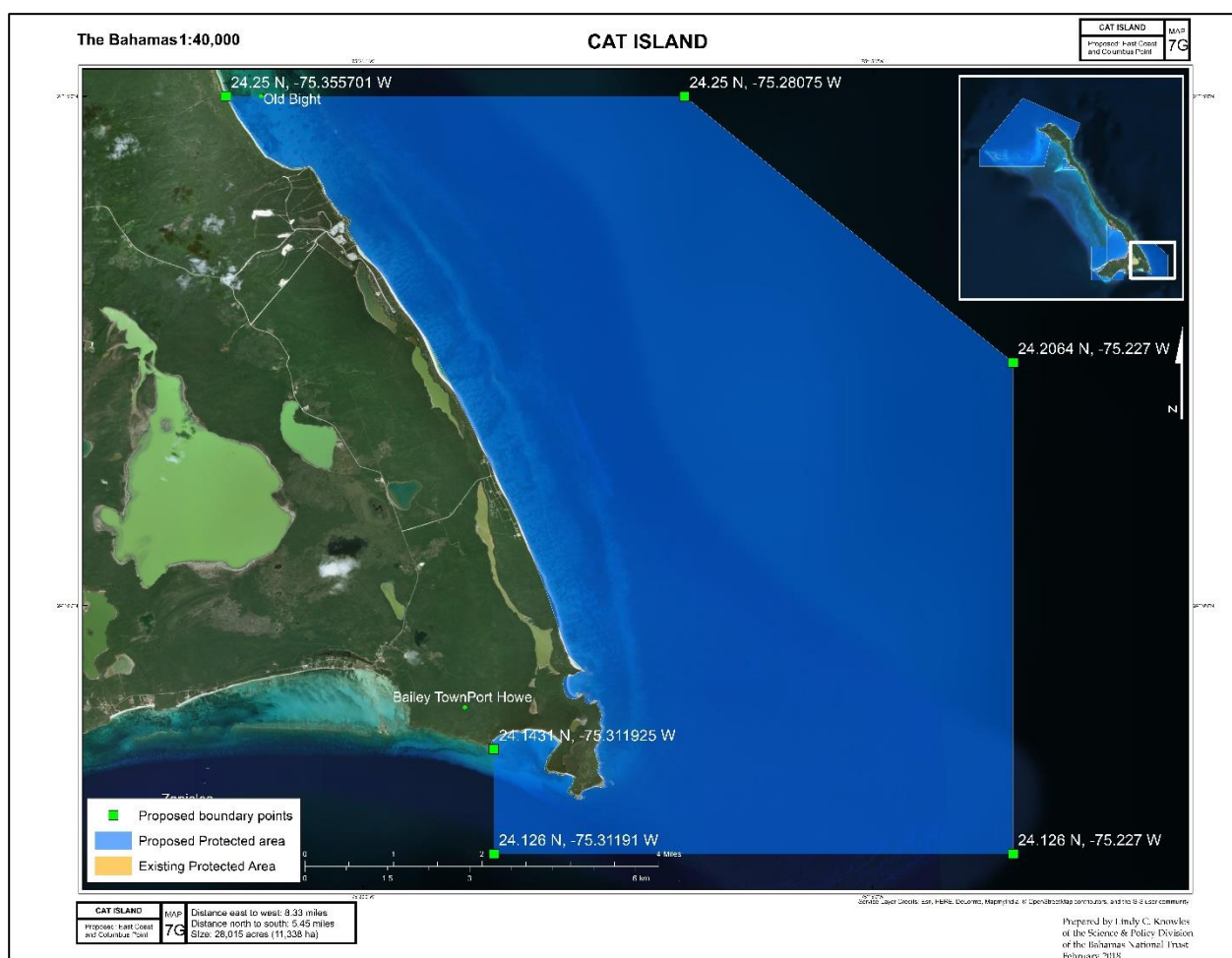
**Size:** 28,015 acres

**Conservation Targets & other resources:** marine mammal habitat, Kirtland's Warbler, Important Seabird and Marine Bird area, turtle habitat, bonefish flats, fish spawning aggregation site, hardbottom, rocky shore, sandy beach, nursery area, seagrass, sand/mud and important deep water features, coral reefs

**Location:** Southeast tip of Cat Island, Columbus Point, east of Port Howe

**Threats:** uncontrolled use, poaching from foreign fishing vessels, illegal, unregulated and unsustainable (IUU) fishing

**Proposed Management:** Zoned for multiple purposes to control existing uses of the area



**Site Description.** Columbus Point is located on the southeastern tip of South Cat Island, east of Port Howe, extending some 5.45 miles from north to south. This site is proposed by Cat Island communities and was identified as an Area of Interest in the ecological gap analysis due to the presence of extensive features of conservation importance. Columbus Point encompasses breathtaking views of sandy beaches, are excellent fishing grounds for pelagic fish species (esp.

tuna) considering its location on the edge of the shallow bank, and is a popular dive site for close encounters with oceanic whitetip sharks.

**Justifications.** Columbus Point is one of the most productive areas for deep-sea fisheries resources, thus attracting anglers from the US for the annual sportsfishing tournament. Its deep-water features of underwater caves and coral canyons attract avid divers, however the abundance of oceanic whitetip sharks attract live a boards from the US and New Providence. A nursery area for fish and conch and bonefish flats are found in the shallow bay area south of Port Howe, and offshore reefs extend into deeper waters include a fish spawning aggregation.

**Opportunities.** The area is currently used for SCUBA diving by live-a-boards for shark diving trips, deep-sea fishing, sportsfishing tournaments, and both small-scale and commercial fishing. Protection status will seek to manage user conflicts, where zoning will be implemented to allow for various uses, and will bring more focused attention and resources to combat against poaching by foreign fishing vessels.