

Dot Dash Dit Bird Islands Management Plan



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EXECUTIVE SUMMARY

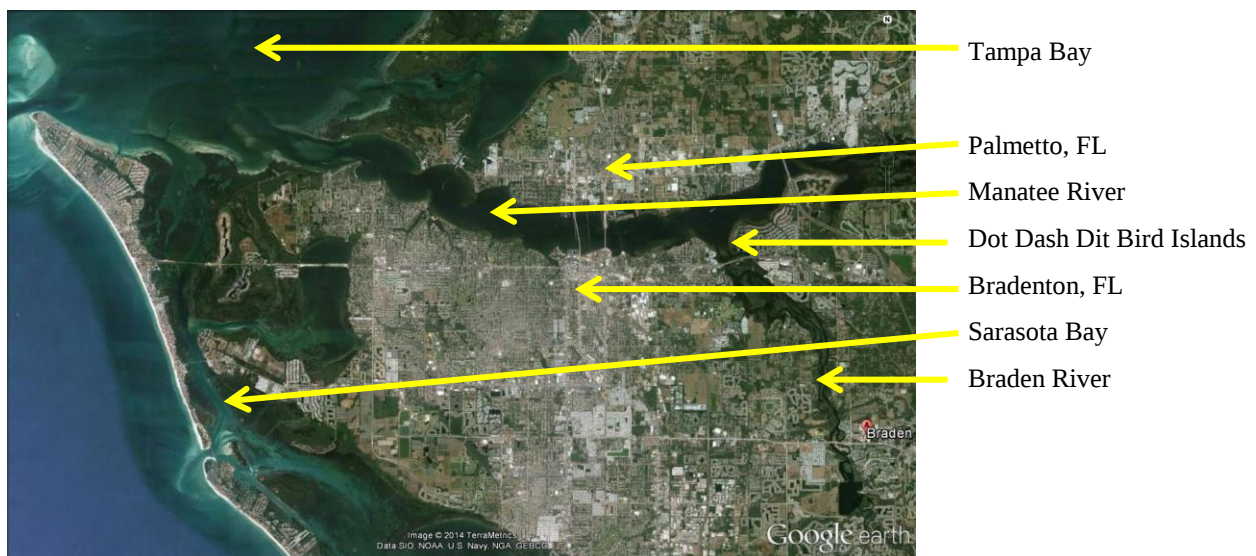
This is a Management Plan for the Dot Dash Dit Bird Islands prepared by Audubon Florida's Florida Coastal Islands Sanctuaries, based in Tampa, in regard to management activities delegated to Audubon from the Division of State Lands of the State of Florida. The report is funded in part by a grant from the U.S. Fish and Wildlife Service's Coastal Program, Jacksonville, FL.

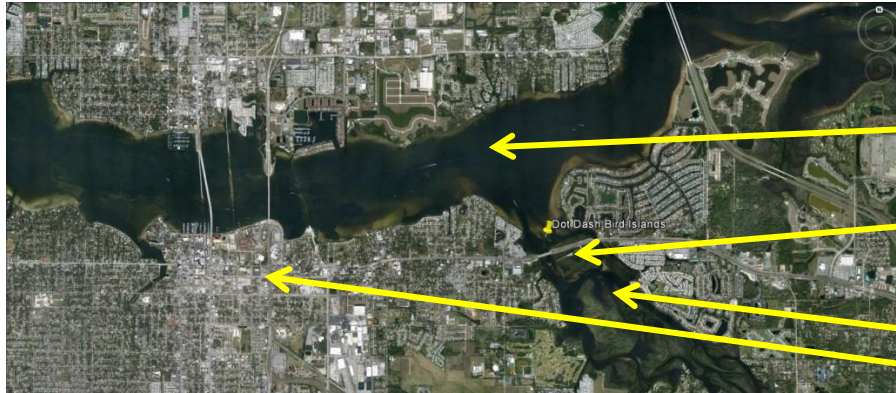
The Dot Dash Dit Bird Islands are located near the mouth of the Braden River where it empties into the Manatee River in Bradenton, Manatee County, Florida, north of the U.S. Highway 64 Bridge. The islands are owned by the State of Florida as a sovereign submerged land and delegated for management as a wildlife sanctuary by the National Audubon Society, Inc. dba Audubon Florida. This report outlines habitats and wildlife use of the island and presents a Management Plan. This report is an addendum to the Cortez Key Bird Sanctuary Management Plan and outlines locations of the Dot, Dash, and Dit islands, the importance of the islands as bird nesting habitat, and management recommendations.

General Description and Location

The Dot Dash Dit islands consist of three small mangrove islands located to the east of the Braden River boat channel and north of the U.S. Highway 64 Bridge in Bradenton, Florida. The islands are small, with

- Dot Island located to the west at 27°29'56.23"N, 82°31'31.38"W and configured as a rounded island 30 m at its widest point and 65 m long,
- Dash Island situated in the middle of the three islands located at 27°29'55.87"N, 82°31'27.11"W and is generally an elongated island approximately 124 m long and 55 m wide at its widest point, and
- Dit Island on the east located at 27°29'57.84"N, 82°31'21.44"W and is the smallest island, only 17 m by 14 m in size. All islands are vegetated with mangrove trees. There are no upland portions within the islands, although the islands do protrude above high tide for most of the tidal range. All three are inundated during high tide events associated with storms.





Manatee River

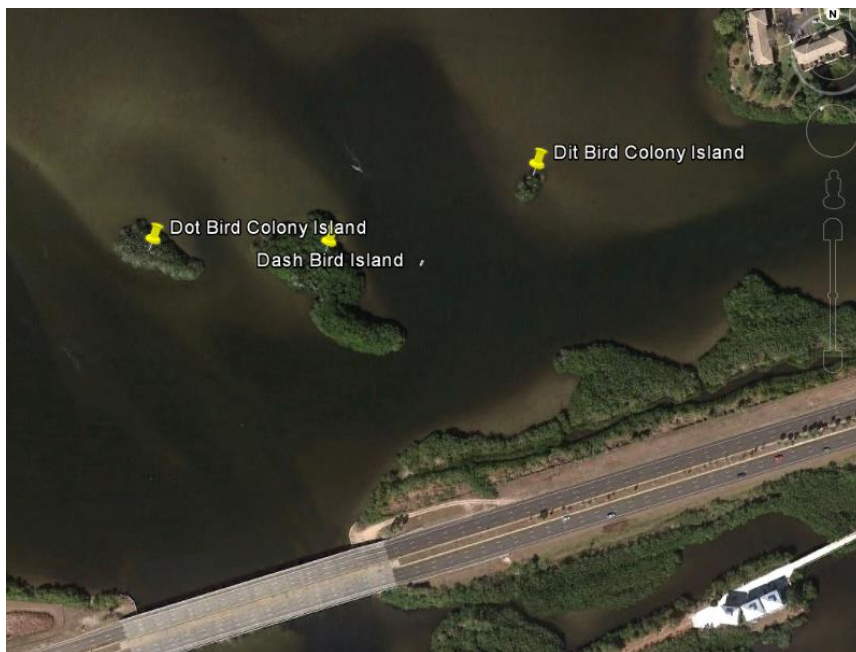
Highway 64 Bridge

Braden River

Bradenton



Dot Dash Dit Bird Islands



Dot Bird Colony Island
Dash Bird Island

Dit Bird Colony Island

Aerial photographs from Google Earth.

Importance as a Wood Stork nesting colony site

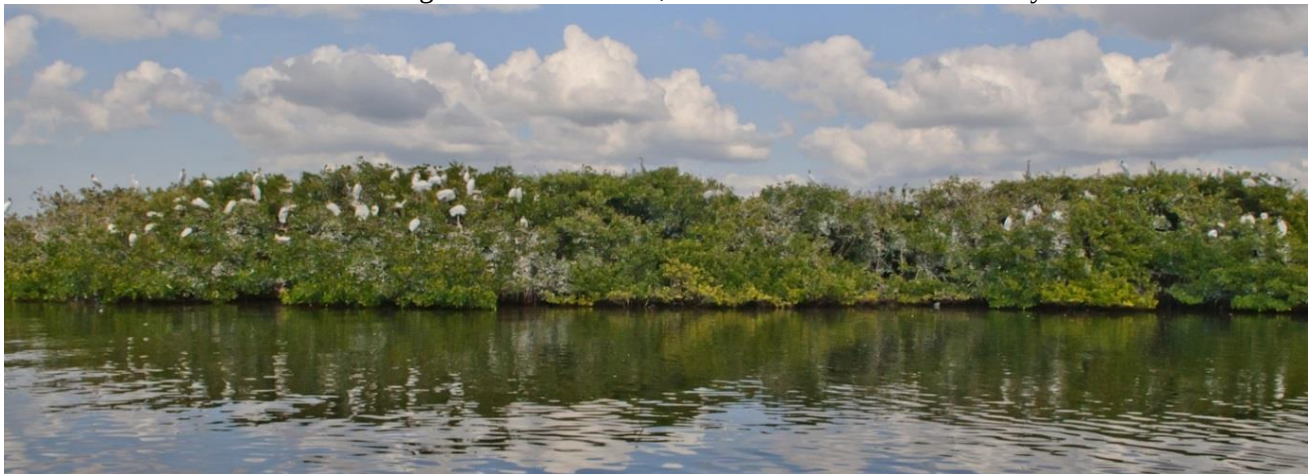
Wood Storks (*Mycteria americana*), federally and state listed as an Endangered Species, nest annually on Dot Island. Wood Storks are large wading birds, with a four-month long nesting period. They select sites that are free of mammalian predators. At Dot Island they nest in the tops of the mangrove trees, making large stick nests from sticks collected from all three islands as well as trees along the shoreline of the Braden River. They eat mostly fish but also a variety of freshwater prey, including snakes, small turtles, small alligators, frogs, rodents, some seeds and other plant materials. They nest in the spring in the west central Florida region, which is a typically dry period. The winter and spring dry period concentrates wetland prey in gradually evaporating lakes, river bottoms, ponds, pools, streams, and ditches, making foraging efficient. Storks are tactile feeders, using highly sensitive beaks to locate prey by touch as they forage with open-gaped mouths. Storks typically lay 3-4 eggs/clutch. Hatching occurs after an incubation period of approximately 30 days. Both adults sit on the eggs and feed the young. During the first five weeks one parent is generally on guard at the nest while the other parent forages at wetlands as far as 65 km (40 miles) away from the nesting colony. After the chicks become large enough that they are not as vulnerable to aerial predators, both parent adults participate in flights to wetland habitats to provide food for the rapidly growing young. Young become independent at about 12 weeks after hatching.

Wood Storks nesting at the Dot Bird Island have a good record of fairly high productivity, with 1.8 chicks/nest noted in most nesting seasons. This reflects the safe nesting conditions afforded by the island and the freshwater foraging resources available in the region during the spring nesting season.

The Dot Bird Island is one of only two islands in the Tampa Bay Estuary region that hosts nesting Wood Storks.

A few pairs of Great Blue Herons, Anhingas, and, in some years, Black-crowned Night-Herons nest at Dot Bird Island. In some years there is nesting on all three islands but in most years the nesting activity is centered at Dot Bird Island. Please see the Colony Surveys below.

Wood Storks and other birds nesting on Dot Bird Island, 2/21/13. Photo credit: Jim Gray



Wood Stork and Great Egrets at the Dot Bird Island, 5/3/12. Photo credit: Mark Rachal



Roseate Spoonbill at Dot Dash Dit Bird Islands 2/21/13. Photo credit: Tammy Lyons.



MANAGEMENT ISSUES AND ACTIVITIES FOR THE DOT DASH DIT BIRD ISLANDS

Responsible to the State of Florida for management of the Dot Dash Dit Bird Islands as a bird sanctuary, the National Audubon Society, Inc. dba Audubon Florida has directed the Florida Coastal Islands Sanctuaries staff to manage the Sanctuary. FCIS staff have identified and addressed a series of issues and implemented solutions over the years. In addition, we are working to find solutions for newer problems, including sea level rise and nature photographer intrusion.

1. Issue: Protection of the nesting birds from disturbance by boaters, fishermen, and trespassers.
Management Action:
 - A. Post the Dot Dash Dit Bird Islands with Audubon “No Trespassing” signs.



FCIS has posted the Dot Dash Dit Bird Islands with metal Audubon “No Trespassing” signs. Signs are attached to white PVC posts.

- B. Patrol Dot Dash Dit Bird Islands regularly during the nesting season. FCIS staff visit the Dot Dash Dit Bird Islands during the nesting season and in the fall and winter and speak to anyone observed on or near the island. Because the mangrove islands are unhospitable to trespassers, we don’t typically observe people on the islands but if people are trespassing, we ask them to leave. If they are overly close, we speak with them about helping give the birds the buffer space that they require to safely raise their young. Our goal is to enlist the boating public in the cooperative protection of this special nesting colony site.
 - C. Recruit and coordinate with volunteers who monitor activity at the islands as Project Colony Watch observers. Members of the Manatee County Audubon Society chapter are Colony Watchers.
2. Issue: Development of community support for the restoration and management of Dot Dash Dit Bird Islands, to promote understanding of the ecological requirements of the regional estuarine habitat, long-term participation in the management of the island and its surrounding grassflats, and development of a conservation ethic within the community.
- Management Action:
- A. We have given presentations to the local Audubon Chapter leaders, at Manatee County Audubon Society and Sarasota Audubon Society, the Sarasota Bay Estuary Program’s Technical Advisory Committee, Manatee County Board of County Commissioners, and others about the bird populations in Sarasota Bay and Dot Dash Dit Bird Islands.
 - B. We have enlisted volunteers to help us monitor the Dot Dash Dit Bird Islands and remove fishing line from the island.
 - C. We are developing a Boater’s Guide for the Lower Tampa Bay Region, funded by Gulfstream Natural Gas Pipeline, the Duckwall Foundation, and the Tampa Bay Estuary Program that will include information about the Dot Dash Dit Bird Islands. The islands are also designated as bird areas in the Manatee County Boater’s Guide, recently updated by the County.
3. Issue: Trash, fishing line, and other entangling material accumulating in the habitat at Dot Dash Dit Bird Islands.
- Management Action:
- A. Regularly remove trash from the Dot Dash Dit Bird Islands. We do not schedule clean-up activities on the Dot Dash Dit Bird Islands because the activity churns up a

- lot of the soft mud substrate, promoting erosion. However, on every visit that staff makes to the Sanctuary we remove any encountered plastic, glass, and metal trash.
- B. Volunteers from Audubon chapters and Tampa Bay Watch participate in the fall Fishing Gear Cleanup (normally scheduled annually in October), to specifically target fishing line and other entangling materials and remove them from the Dot Dash Dit Bird Islands and other foraging and nesting bird islands in the Tampa Bay watershed during the time of year when birds are not nesting. This cleans the island of deadly fishing line and promotes increased awareness among fishermen and the public about the impacts of fishing gear on birds and wildlife.



The FWC has identified fishing line entanglement as the main cause of mortality for Brown Pelicans in Florida.

Brown Pelican carcass hanging from mangroves by fishing line. Photo credit: Audubon files.

- C. Develop a brochure that details safe techniques for removing fishing hooks and line from entangled birds.

If you've caught too many bait fish, throw them back in for the next time! Don't feed them to the birds!

This pamphlet has been produced by



With the generous help from
Sebastian Inlet State Park: Ranger Terese Harber,
Audubon Florida: Ann Paul and Mark Rachal
Pelican Island Audubon Society:
Paintings and photographs by Don Schuster.
Text by Karen Schuster.
Layout by Bob Montanaro.



We have developed a brochure, titled “What to do if you hook a pelican!”, in association with Audubon chapters, the Florida Parks Service, the Skyway Pier concessioner, and the Duckwall Foundation. A direct link to the brochure is available on the Tampa Bay Water Atlas website at http://www.tampabay.wateratlas.usf.edu/upload/documents/pelican_brochure_final.pdf.

4. Issue: Nature photographers and nature photography tour groups impacting nesting birds.
Management Action:

A. Work with the nature photographer community to increase awareness about appropriate, ethical behavior. We have presented information about this to the local Audubon chapters, nature photographer groups, the media, the Florida Ornithological Society, and others, and worked up Guidelines for Ethical Nature Photography. We ask hosts of nature photography contests to exclude as ineligible any photography which is apparently obtained through disturbance of nesting birds.

Photographer tour with boat tied to bird sanctuary mangroves. Photo credit: Audubon files.



5. Issue: Sea level rise threatens the continued survival of the mangrove trees at Dot Dash Dit Bird Islands. At almost every spring tide, the islands wash over, with waves from storms and the nearby boat channel moving across the mangroves roots. The highly erodible mangrove soil is vulnerable to erosional loss from the island's profile. The Braden River Channel passes to the west of Dot Bird Island and the west corner of that island is losing mangrove trees to erosion. Boat traffic in the channel is directed to go no faster than 25 miles per hour.



Mangrove tree on shoreline of Dot Island dead due to erosion. Photo credit: Mark Rachal.

Management Action:

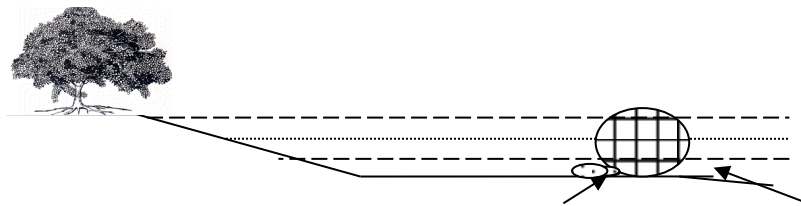
A. We are working with Manatee County Environmental staff, Tampa Bay Estuary Program staff and contractors, and others to develop an erosion control solution to intercept wave energy and allow suspended material in the water column to settle on the island. Slowing the wave action across the island will allow mangrove leaf matter

to develop into soil, and with time, to increase the island's profile height. It will also slow the ongoing erosion.

One proposal being considered involves installation of reef balls to create a quiet water area next to the island, known as a "living shoreline". Reef balls would be installed landward of the seagrass meadow on the west side of Dot Island, facing the Braden River boat channel. The reef balls would be constructed of pH-balanced concrete, to promote colonization by pelagic oyster larvae.

We have applied for funding for this project to the BP settlement fund managers, and the project has been highly ranked by the Sarasota Bay Estuary Program, Tampa Bay Estuary Program, and Charlotte Harbor Estuary Program review committee.

Schematic drawing of a proposed breakwater concept



6. Issue: Derelict boats at the Dot Dash Dit Bird Islands. Derelict boats cause physical damage to the trunks of the mangroves, as they move against them pushed by waves and wind action.



Management Action:

- A. Identify the presence of abandoned derelict vessels and contact the U.S. Coast Guard office, requesting removal. Work with the Coast Guard to accomplish vessel removal.
- B. Educate the local population, especially the fishermen, about the negative impacts to habitats caused by abandoning vessels adjacent to the island.

Dot Dash Dit Bird Islands Colony Surveys

Numbers represent Nesting Pairs

Survey Year		2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Survey Date	FWC Listing	3/3, 5/2	2/15, 4/21, 5/20	3/8, 5/27	3/16, 5/11	3/9, 4/28	5/4	5/16	5/24	5/14	4/5, 5/12	5/3	4/25	5/21
Species														
Double-crested Cormorant		7	7	20				4		32	10	3	11	18
Anhinga		31	20	40	6	5	5	10	28	33	33	42	24	23
Great Blue Heron		32	45	39	10	31	20	14	30	34	18	17	12	23
Great Egret		124	171	152	12	5	79	52	153	150	65	60	85	55
Snowy Egret	SSC	79	135	90			13	6	35	65	4	8	4	13
Little Blue Heron	SSC	5	9	6			1	3	10				1	
Tricolored Heron	SSC	20	50	40	5			6	35		5	6	5	5
Cattle Egret		846	600	670	5		30	56	1920	90	2	91	30	24
Black-crowned Night-Heron		4	3	13			2	2	7	9	4	9	5	6
Green Heron									1			1		
White Ibis	SSC		15	10					20			1		
Glossy Ibis				3										
Roseate Spoonbill	SSC		1	10			9	13	25	50	12	16	22	18
Wood Stork	E	240	277	241	15		240	56	95	200	120	134	101	121
	Total # of nests	1388	1333	1334	53	41	399	222	2360	663	273	388	300	298

Florida Fish and Wildlife Conservation Commission Listing = "Endangered" or "Species of Special Concern"

Note: In Spring 2005, Wood Storks began nesting on Dot, and abandoned young in the nests by May. In 2006, Wood Storks were observed gathering nest material, copulating, and performing other pair bond formation behaviors, but the colony was abandoned by the end of March.

Wood Stork Brood Productivity: 2009: 1.8 chicks/nest
2011: 1.9 chicks/nest
2012: 1.8 chicks/nest
2013: 1.8 chicks/nest
2014: 1.7 chicks/nest