

Section 3

Standard Sea Turtle Monitoring Protocol

Purpose

Unrestricted and restricted beach driving including, law enforcement and emergency vehicles, local traffic, other official personnel in vehicles and horseback riders require sea turtle patrol volunteers to denote the location of sea turtle nests. The conspicuous and standard marking and barricading of sea turtle nests are an effective means of protecting nests from vehicular, horseback, and pedestrian activities.

Relevant ITP Condition - G.2.i.

- i. **Standardization of Sea Turtle Monitoring.** “Within (12) months of the effective date of this Permit, the Permittee shall develop, in coordination with State of Florida Primary Permit Holders, a Sea Turtle Nest Monitoring Plan and submit such plan to the U.S. Fish and Wildlife Service for review and approval. The Permittee shall implement the Sea Turtle Nest Monitoring Plan no later than the second full nesting season following U.S. Fish and Wildlife Service approval (beginning on May 1). The approved Sea Turtle Nesting Monitoring Plan may be subsequently amended both prior to and after its implementation upon review and approval of the U.S. Fish and Wildlife Service.”

HCP Performance During 2008

Implementation: Florida Fish and Wildlife Conservation Commission (FWC) Marine Turtle Principal Permit Holders (PPHs) are required to follow standard nesting protocol guidelines. After approval of the HCP and according to the condition stated above they are additionally required to follow a Standard Sea Turtle Monitoring Protocol (SSTMP) created by the HCP Coordinator and the PPHs. According to the approved SSTMP PPHs are required to attend annual HCP training, complete County issued data sheets (Appendix A) and communicate bi-weekly all nesting activity. PPHs also agreed to staking nests with a minimum of three stakes in low use areas and 4 stakes in high use areas (Table 4).

Table 4. Staking Methods

Staking Methods Criteria

Sea Turtle Nesting Threat Criteria	Sea Turtle Nesting Protection (Minimum)	Additional Protection Actions Taken As Needed
<p>HIGH RISK St. Aug Beach Crescent Beach Fort Matanzas Vilano Beach South Ponte Vedra North Ponte Vedra</p> <p>Vehicles, Houses, Horses, Multiple Public Access, Poaching Hard/Packed/Flat Terrain Soft/Sloped Terrain</p>	<ul style="list-style-type: none"> - 4 stakes, numbered, w/ bright fluorescent flagging and 1 Yellow (FWC) Placard - Driving beaches w/ reflective numbers, green flagging at time of emergence for rut removal - Dune Stakes measured from identified clutch 	<ul style="list-style-type: none"> - Self-Releasing Grids (only after predation, if permitted) - Dummy Nest Perimeter Staking, only after poaching indicated, consult with FWC and HCP for direction - Nests located in driving lanes barricaded with orange cones
<p>MEDIUM RISK Ponte Vedra Beach Summer Haven</p> <p>Houses, Horses, Limited Public Access, Soft/Sloped Terrain</p>	<ul style="list-style-type: none"> - 3 stakes, numbered, w/ bright fluorescent flagging and 1 Yellow (FWC) Placard 	<ul style="list-style-type: none"> - Self-Releasing Grids (only after predation occurs, if permitted) - Dummy Nest Perimeter Staking, only after poaching indicated, consult with FWC and HCP for direction
<p>LOW RISK GTMNERR Anastasia State Park</p> <p>No Vehicles, No Houses, Limited Public Access</p>	<ul style="list-style-type: none"> - 3 stakes, numbered, w/ bright fluorescent flagging and 1 Yellow (FWC) Placard 	<ul style="list-style-type: none"> - Self-Releasing Grids (only after predation occurs, if permitted) - Dummy Nest Perimeter Staking, only after poaching indicated, consult with FWC and HCP for direction

Continuous communication regarding nesting and false crawls is important to the County so that proper management decisions for coastal permitting, beach lighting, and beach access can be made. HCP and Protected Species training was held at the Guana Tolomato Matanzas National Estuarine Research Reserve (GTMNERR) on April 21 for all PPHs and their volunteers. The training covered all aspects of the SSTMP and the County issued data sheets.

Assessment: Throughout the 2008 season County staff reported a lack of communication from the PPHs on a bi-weekly basis. In an effort to maintain streamlined communication a meeting was held on November 22, 2008 with PPHs, representatives of USFWS and FWC, HCP Coordinator, and Manager of Beaches. It was agreed upon by attending members to make minor changes to the SSTMP (Appendix B) to better reach the goal of data collection. All attendees agreed to completing and submitting on a weekly basis a daily spread sheet logging beach activities and a standard data spread sheet, both which are being provided by the County. In addition, they agreed to completing County issued data sheets that summarizes crawl, relocation, and nest reproductive data. They are to be submitted after all nesting has resumed for the season.

For the most part sea turtle monitoring procedures were carried out according to FWC guidelines. All data presented in this Annual Report was obtained from the PPHs annual submittals to FWC and data sheets submitted at end of the season. PPHs and volunteers were diligent in reporting HCP infractions through email and phone calls.

The 2008 nesting season resulted in a total of 298 nests, averaging 60 days of incubation. As the St. Johns County nesting trends would predict the loggerhead was the dominant species in nesting with 284 nests which accounts for 95% of the total nests. The remaining 5% nesting was the result of 14 green sea turtle nests. A total of 36 nests were deposited on driving beaches (10.6 miles, 17.06 km), 189 on non-driving beaches (24.8 miles 39.91 km) and 73 on restricted driving beaches (5.7 miles, 7.73 km). The highest density nesting beach was Summer Haven located in the most southern portion of the County. Summer Haven has historically been a high density nesting beach as well as a physically challenging beach with erosion, periodic sand placement and coastal development. Summer Haven residents that live on the most northern part of the strip of sand are allowed access to their homes by entering the beach and accessing the “way of necessity” trail on the western slope.

A total of 10 nests were relocated this year as a result of high tides and encroaching storm events. FWC guidelines state that if a sea turtle nest needs to be relocated it must be relocated within 24 hours after the nest has been deposited. Two nests well into their incubation period were relocated without authorization from FWC during large storm events. This practice has been highly discouraged by FWC officials.

During these large storm events that occurred later in the summer a total of 68 nests were washed out further decreasing the amount of hatchlings to emerge into the Atlantic Ocean.

The tables below summarize all nesting along St. Johns County 41.1 miles of beaches.

Table 5.

2008 Sea Turtle Nesting Activity

Species	Nest	False Crawls	Nest Relocated	Washed Out	Average Incubation	Poached	Total # Of Hatchlings
Cc	284	303	10	61	60	0	16,276
Cm	14	13	0	7	59	0	616
Dc	0	0	0	0	0	0	0
Totals	298	316	10	68	119	0	16,892

* Loggerhead (*Caretta caretta*, Cc), Green (*Chelonia mydas*, Cm),
(*Dermochelys coriacea*, Dc)

Refer to Map Figure 1, 2, 3 and 4 for a complete map of nesting along St. Johns County beaches. Map figure 7 demonstrates overall sea turtle nesting activity, false crawls, and lighting violations.

Table 6.

Nesting Density

Beach	Nest	Mileage	Km	Density/Mile	% of County Beach	% Distribution of nest
Summer Haven	27	1.6	2.6	16.9	3.89%	9.06%
St. Augustine	36	11.1	17.7	3.2	26.90%	12.08%
ASP	17	4.1	6.6	4.1	10.00%	5.70%
Vilano-North Beach	38	3.0	4.8	12.7	7.37%	12.75%
South Ponte Vedra	32	5.2	8.2	6.2	12.52%	10.74%
GTMNERR	104	7.3	11.6	14.2	17.66%	34.90%
Ponte Vedra	44	8.9	14.3	4.9	21.67%	14.77%
Totals	298	41.1	65.8		100.00%	100.00%

Table 7.

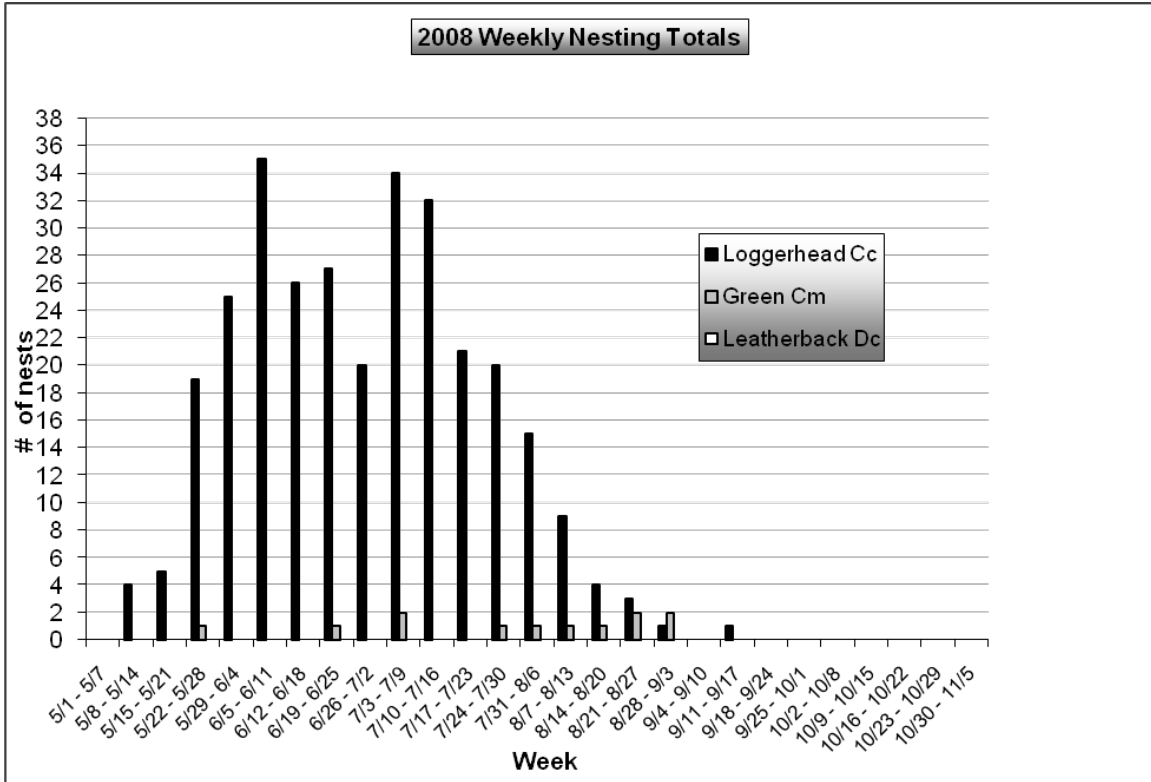
Driving/Nondriving Nesting Summary

Beach Type	Mileage	Km	Nest	%Distribution of County Beach	% Distribution of nest
Driving	10.6	17.06	36	25.79%	12.08%
Non-driving	24.8	39.91	189	60.34%	63.42%
Restricted	5.7	9.17	73	13.87%	24.50%
Total	41.1	66.14	298	100.00%	100.00%

The first nest of the season, deposited on May 10 by a loggerhead, was found on a non-driving beach of the Guana Tolomato Matanzas Estuarine Research Reserve (GTMNERR). The first green nest was found on May 27 on a non-driving beach of Anastasia State Park. The last nest of the season was deposited by a green on August 29 in Ponte Vedra Beach. The density of primary nesting for 2008 seemed to be inconsistent

possibly due to a decrease in temperature during the summer months. However, the highest week of nesting occurred from June 5 to June 11 with another increase in nesting occurring from July 3 until July 16.

Figure 1. Weekly totals including all species



In addition, two events regarding nesting sea turtles were reported to County staff. On June 9 a nesting female was found dead in a hole (Object 2) by GTMNERR biologist during their routine patrol. She was returning to the ocean after depositing her nest on the beach. During the summer months visitors tend to dig large holes for sand castle building or playing. County staff attempt to educate visitors on the implications of such holes and fill them in as necessary. Then on August 7 a nest was discovered in Ponte Vedra beach under a catamaran (Object 3) that had been placed on the beach by a homeowner.

Object 2.**Object 3.**

Program Improvements: The County anticipates increased coordination with the PPHs regarding submittal of data and daily logs. The submitted information will hopefully show trends in nesting and false crawls documented within the CZ, driving lanes, armored, re-nourished, and heavily eroded beaches.