

NRR-PMDA-ECapture Resource

From: Steve Weege <steveweege@gmail.com>
Sent: Saturday, April 05, 2014 1:32 PM
To: Meghan Koperski
Cc: Audra Livergood - NOAA Federal; Ed Hollowell; Jodie Gless; John Jones; Ken Frehafer; Marine Turtle Permit; Michael Bresette; EndangeredSpecies Resource; SCO@dep.state.fl.us; Shelley Norton; Vince Munne; Cody Mott; Jeff Guertin; Ryan Welsh; Serge Aucoin
Subject: March 2014 FPL Marine Turtle Removal Monthly Report
Attachments: March 2014 Marine Turtle Captures.rtf; Monthly Report Notes 2014.xls; FPL St. Lucie Capture Summary 2014.xls; Power Plant Causal Turtles.xlsx

Mrs. Meghan Koperski
Tequesta Field Laboratory
19100 SE Federal Highway
Tequesta, FL 33469

**Subject: Marine Turtle Removal Monthly Summary
March 2014**

Dear Meghan,

Attached, please find the monthly summary of marine turtle removals for March 2014. This month, we captured eighteen (18) *Caretta caretta*, five (5) *Chelonia mydas*, and one *Eretmochelys imbricata* in the intake canal of the St. Lucie power plant on Hutchinson Island. There were no mortalities and only one sea turtle was sent for rehabilitation during the month of March. As with all sea turtle strandings at the Saint Lucie Plant (alive or dead), the Florida Fish and Wildlife Conservation Commission (FWC) was consulted and a stranding form was filed with the state through the Sea Turtle Stranding and Salvage Network. The stranding in March was not considered causal to power plant operations.

There was one noncausal stranding at the Saint Lucie Power Plant during the month of March. An underweight and lethargic subadult loggerhead was netted and removed from the intake canal on March 2nd. This animal was heavily encrusted with epibiota and had a large healing arc-shaped notch in the right posterior carapace, as well as minor healed flipper damage. FWC was consulted to arrange for transport to a designated rehabilitation facility and the turtle was transported to SeaWorld Orlando by the FWC stranding coordinator, Morgan Young. This incident was not considered causal to power plant operations.

Throughout the month, the 5-inch barrier net experienced severe loads of algae that entered into the intake canal system, whereas jellyfish entrainment was light. A scheduled short-term power plant outage began on March 2nd. Consequently, flow rates in the canal system have abated considerably. In addition, baseline water levels in the intake canal have risen due to the reduced flow rates as some of the circulation pumps were powered down for the outage. Even still, the temporary barrier net has performed as designed and no turtles have been observed beyond the 5-inch net. Construction of a permanent 5-inch barrier net is currently underway and completion has been projected for mid-to-late 2014.

The tag numbers and morphometric data for all turtles captured during the month have been included with this report (see attachments/addendums). Also included is a spreadsheet for all captures, mortalities, injuries, and causal events delineated by species and by month for the year 2014. In addition, this spreadsheet also tracks

fresh scrapes incurred on captured turtles for the current month, as well as the entire year. An additional Excel spreadsheet tracks all causal injuries and mortalities incurred by sea turtles at the St. Lucie Plant since 2002.

Please feel free to contact me with any questions.

Sincerely,

Steve

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**MARINE TURTLE REMOVALS
ST. LUCIE PLANT INTAKE CANAL
MARCH 2014**

Date	Species	Note	Tag #'s	SMCL (cm)	SSCL (cm)	CSCL (cm)	CMCW (cm)	SMCW (cm)	SMPL (cm)	Weight (kg)	Method
3/2/2014	<i>Caretta caretta</i>	1	EEA388/EEA389	60.9	61.3	69.0	65.8	50.0	49.4	32.1	North net
3/2/2014	<i>Caretta caretta</i>	2	EEP566/EEP567	66.9	67.7	73.0	70.8	55.1	52.7	45.7	South net
3/3/2014	<i>Chelonia mydas</i>		EEP578	29.4	29.7	31.3	25.7	23.3	24.5	3.1	Dip net
3/5/2014	<i>Chelonia mydas</i>	3	BBR499/EEP581	57.6	57.9	61.6	54.1	43.5	47.2	25.5	South net
3/5/2014	<i>Caretta caretta</i>		EEP579/EEP580	55.6	56.7	62.4	62.0	49.6	45.6	28.2	South net
3/5/2014	<i>Chelonia mydas</i>	4	EEP582/EEP583	51.5	51.8	56.5	48.5	40.9	41.9	17.7	South net
3/6/2014	<i>Chelonia mydas</i>		989001001359000	26.3	26.5	28.0	24.1	21.9	22.4	2.5	South net
3/7/2014	<i>Chelonia mydas</i>	5	BBP244	38.5	38.9	42.4	37.5	31.0	32.2	8.0	South net
3/7/2014	<i>Caretta caretta</i>		EEP584/EEP585	55.5	56.2	60.7	59.8	48.6	45.6	29.5	South net
3/9/2014	<i>Caretta caretta</i>	6	EEP586/EEP587	82.3	83.8	89.5	80.4	63.7	62.8	77.4	North net
3/12/2014	<i>Caretta caretta</i>	7	EEP564/EEP565	66.0	67.4	72.6	65.0	49.3	51.5	42.5	South net
3/13/2014	<i>Caretta caretta</i>		EEP588/EEP589	64.6	66.1	69.8	66.5	54.3	50.1	40.1	South net
3/17/2014	<i>Caretta caretta</i>		EEP590/EEP591	64.2	65.8	70.4	65.9	54.4	51.5	42.3	South net
3/18/2014	<i>Caretta caretta</i>		EEP592/EEP593	60.4	60.8	65.2	63.4	49.1	45.8	33.2	South net
3/19/2014	<i>Caretta caretta</i>		EEP594/EEP595	63.4	64.2	70.6	67.8	54.7	49.1	38.6	South net

Date	Species	Note	Tag #'s	SMCL (cm)	SSCL (cm)	CSCL (cm)	CMCW (cm)	SMCW (cm)	SMPL (cm)	Weight (kg)	Method
3/20/2014	<i>Caretta caretta</i>		EEP596/EEP597	57.6	58.0	61.9	60.4	48.0	43.6	26.5	South net
3/23/2014	<i>Caretta caretta</i>	8	EEP598/EEP599	90.7	91.6	98.2	100.8	69.3	73.4	131.2	South net
3/24/2014	<i>Caretta caretta</i>		EEP600/EEP601	64.9	67.1	71.0	69.1	58.4	51.0	43.4	North net
3/27/2014	<i>Eretmochelys imbricata</i>	9	EEP602/EEP603	70.1	72.4	77.9	71.1	55.9	54.9	46.1	South net
3/29/2014	<i>Caretta caretta</i>		EEP604/EEP605	72.6	74.8	81.5	75.0	59.7	56.6	61.6	North net
3/29/2014	<i>Caretta caretta</i>		EEP606/EEP607	62.5	64.0	69.6	67.5	54.3	49.7	38.7	North net
3/29/2014	<i>Caretta caretta</i>		EEP608/EEP609	63.9	64.8	72.0	68.2	52.9	50.1	42.3	North net
3/30/2014	<i>Caretta caretta</i>		EEP610/EEP611	62.9	63.8	69.1	68.0	52.6	49.8	37.4	South net
3/30/2014	<i>Caretta caretta</i>		EEP612/EEP613	70.6	72.3	78.3	73.5	58.5	56.7	55.7	South net

NOTES

1. REHAB (NON-CAUSAL). Stranding #STW140302-01. RECAPTURE. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 5/9/13, 11/19/13 and 3/2/14. Turtle was underweight & lethargic with a heavy epibiont load - "Barnacle Bill". Large healing arc-shaped notch in right posterior carapace. Turtle missing 10% of left rear flipper (healed). Transported to SeaWorld by FWC stranding coordinator.
2. RECAPTURE. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 2/24/13 and 3/2/14.
3. RECAPTURE. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 11/23/04, 6/21/06, 7/28/06, 9/1/07, 7/8/08, 9/7/08, 10/22/08, 6/15/09, 9/9/10, 11/23/11, 12/7/12, 4/14/13 and 3/5/14. Healing wounds on dorsal surface of neck and in left rear flipper (cause unknown).
4. PAPILLOMAS (Balazs Tumor Score = 2 {moderate}, Total Tumor Score = 13). Moderate fresh scrape in right anterior carapace.
5. RECAPTURE. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 10/12/11, 4/29/12, 7/7/12, 10/20/12, 2/23/13, 7/10/13, 1/21/14 and 3/7/14. PAPILLOMAS (Balazs Tumor Score = 2 {moderate}, Total Tumor Score = 21). Some tumors were regressing, including the largest tumor. One extra vertebral costal scute.
6. Adult male. Tail length = 275 mm. Sex determination based on tail length.
7. RECAPTURE. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 2/24/14 and 3/12/14. Shark attack victim. Large arc-shaped piece missing from left anterior carapace (approximately 10% missing, healed). Arc-shaped scar in left side of plastron. Turtle also missing 80% of right rear flipper (healed).
8. Adult female. Tail length = 250 mm. Scarring from old shark attack evident in carapace and plastron, including arc-shaped bite marks and healing cuts in rear flippers. Bulge in left anterior carapace (possibly healed damaged from shark attack).
9. Adult female. Tail length = 125 mm.

SMCL = Straight Minimum Carapace Length
SMCL = Straight Standard Carapace Length
CSCL = Curved Standard Carapace Length
CMCW = Curved Maximum Carapace Width
SMCW = Straight Maximum Carapace Width
SMPL = Straight Midline Plastron Length

	Loggerheads <i>(Caretta caretta)</i>		Green turtles <i>(Chelonia mydas)</i>		Hawksbills <i>(Eretmochelys imbricata)</i>		Leatherbacks <i>(Dermochelys coriacea)</i>		Kemp's ridley <i>(Lepidochelys kempii)</i>		Overall Totals	
	Mar-	Year to Date	Mar-	Year to Date	Mar-	Year to Date	Mar-	Year to Date	Mar-	Year to Date	Mar-	Year to Date
Captures	18	73	5	57	1	2	0	0	0	2	24	134
Causal Mortalities	0	0	0	0	0	0	0	0	0	0	0	0
Non-causal Mortalities	0	1	0	1	0	1	0	0	0	0	0	3
Causal Injuries	0	0	0	0	0	0	0	0	0	0	0	0
Sent to rehab	1	4	0	2	0	0	0	0	0	1	1	7
Fresh Scrapes	Mar-	Year to Date	Mar-	Year to Date	Mar-	Year to Date	Mar-	Year to Date	Mar-	Year to Date	Mar-	Year to Date
None	2	16	0	15	1	2	0	0	0	1	3	34
Minor	16	52	4	39	0	0	0	0	0	1	20	92
Moderate	0	5	1	3	0	0	0	0	0	0	1	8
Severe	0	0	0	0	0	0	0	0	0	0	0	0
Percent with mod/sev scrapes	0.0%	6.8%	20.0%	5.3%	0.0%	0.0%	N/A	N/A	N/A	0.0%	4.2%	6.0%

St Lucie Power Plant Causal Turtles		2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	**2014	Injury / Mortality Totals by Species
Loggerhead	Total Captures	341	538	623	484	419	227	420	260	295	302	232	303	73	4,517
	Injuries	0	0	0	1	*3	0	1	1	0	0	1	1	0	5
	Mortalities	0	0	1	0	*21	0	0	0	0	1	0	0	0	2
Green	Total Captures	292	394	286	428	267	101	299	161	444	217	127	196	57	3,269
	Injuries	0	1	0	3	7	0	2	2	1	0	0	0	0	16
	Mortalities	2	1	1	1	1	1	2	0	3	1	2	2	0	17
Leatherback	Total Captures	0	4	2	0	1	1	0	1	2	0	2	2	0	15
	Injuries	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Mortalities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kemp's Ridley	Total Captures	0	2	1	3	3	0	2	0	7	0	0	0	2	20
	Injuries	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Mortalities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hawksbill	Total Captures	3	6	2	2	2	1	4	2	3	2	1	2	2	32
	Injuries	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Mortalities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Injury & Mortality Yearly Totals		2	2	2	5	32	1	5	3	5	1	3	3	0	64
Total Captures per Year		636	944	914	917	692	330	725	424	751	521	362	503	134	7,853

*The loggerhead causal injuries and mortalities in 2006 were all hatchlings.

**2014 is a partial year.