

NRR-PMDAPEm Resource

From: Steve Weege [steveweege@gmail.com]
Sent: Wednesday, November 05, 2014 10:27 AM
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; Vince Munne; Cody Mott; Jeff Guertin; Ryan Welsh
Subject: October 2014 FPL Marine Turtle Removal Monthly Report
Attachments: October 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
October 2014**

Dear Meghan,

Attached, please find the monthly summary of marine turtle removals for October 2014. This month, we captured seventeen (17) *Caretta caretta* and one (1) *Chelonia mydas* in the intake canal of the St. Lucie power plant on Hutchinson Island. Two sea turtles were sent for rehabilitation and there were no mortalities for the month of October. 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. Neither of the stranding incidents in October were considered causal to power plant operations.

There were two non-causal stranding events this past month, both apparently suffering from debilitated loggerhead turtle syndrome. On October 24th, a large subadult loggerhead was dip-netted in the intake canal in poor condition. The animal was found to be underweight and lethargic; the heartbeat was visible. There was also a partially healed gash in the right front flipper. The turtle was transported by Inwater Research Group personnel to the Loggerhead Marinelife Center in Juno Beach for rehabilitation. On October 27th, a second subadult loggerhead was hand captured in the intake canal in poor condition. The turtle was underweight and lethargic; the plastron was sunken in and soft. This second stranding was transported to SeaWorld Orlando by the FWC stranding coordinator, Morgan Young.

Throughout the month, the 5-inch barrier net experienced severe loads of jellyfish that entered into the intake canal system, whereas algae entrainment was light. Repeated severe jellyfish intrusions threatened the integrity of the temporary 5-inch barrier net. Consequently, Underwater Engineering Services, Inc. was called upon to clean and inspect the 5-inch net on numerous occasions. In addition, Inwater Research Group biologists helped to mitigate the potential impact of these events by performing around-the-clock monitoring during and after periods of heavy jellyfish intrusion. Through these combined efforts, the temporary barrier net was maintained well above the waterline and no turtles were observed beyond the 5-inch net. Construction of a permanent 5-inch barrier net is currently underway and completion has been projected for 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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Files	Size	Date & Time
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October 2014 Marine Turtle Captures.rtf		12224
Monthly Report Notes 2014.xls	145984	
FPL St. Lucie Capture Summary 2014.xls		168512
Power Plant Causal Turtles.xlsx	18444	

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

Date	Species	Note	Tag #'s	SMCL (cm)	SSCL (cm)	CSCL (cm)	CMCW (cm)	SMCW (cm)	SMPL (cm)	Weight (kg)	Method
10/2/2014	<i>Caretta caretta</i>		LLA146/LLA147	72.6	74.8	78.3	71.1	57.7	53.6	56.4	Hand capture
10/2/2014	<i>Caretta caretta</i>	1	LLA148/LLA149	93.9	95.2	100.0	92.0	76.7	69.8	117.6	Hand capture
10/3/2014	<i>Caretta caretta</i>	2	LLA150/LLA151	87.3	88.6	94.9	87.3	67.8	67.1	108.8	Hand capture
10/3/2014	<i>Caretta caretta</i>		LLA152/LLA153	59.4	60.6	63.5	62.4	51.6	48.8	34.6	Hand capture
10/6/2014	<i>Caretta caretta</i>		LLA154/LLA155	66.0	67.8	72.6	69.9	54.7	49.5	39.9	North net
10/16/2014	<i>Caretta caretta</i>		LLA156/LLA157	65.3	66.4	70.9	67.8	54.9	51.1	40.2	South net
10/17/2014	<i>Caretta caretta</i>	3	LLA158/LLA159	87.1	87.4	95.4	82.1	60.3	64.8	86.8	North net
10/17/2014	<i>Caretta caretta</i>		LLA160/LLA161	64.7	67.1	70.2	70.0	55.1	52.2	40.6	Dip net
10/17/2014	<i>Caretta caretta</i>	4	LLA162/LLA163	99.8	99.9	108.3	93.9	70.9	75.9	125.8	Hand capture
10/24/2014	<i>Caretta caretta</i>	5	CRM141024-01	81.4	83.0	88.2	78.9	61.6	58.7	54.7	Dip net
10/24/2014	<i>Chelonia mydas</i>	6	EEP374/EEP375	50.4	50.5	54.1	47.8	39.4	41.0	16.4	North net
10/26/2014	<i>Caretta caretta</i>	7	EEA323/EEA324	81.2	82.4	90.0	76.3	59.7	63.0	76.9	South net
10/27/2014	<i>Caretta caretta</i>	8	LLA164/LLA165	76.8	78.0	83.9	78.9	62.6	56.7	54.2	Hand capture
10/27/2014	<i>Caretta caretta</i>		LLA166/LLA167	60.5	61.5	65.5	64.4	51.6	48.9	33.5	Hand capture
10/27/2014	<i>Caretta caretta</i>		LLA168/LLA169	61.8	63.4	67.2	64.0	53.4	48.1	36.2	Hand capture

Date	Species	Note	Tag #'s	SMCL (cm)	SSCL (cm)	CSCl (cm)	CMCW (cm)	SMCW (cm)	SMPL (cm)	Weight (kg)	Method
10/27/2014	<i>Caretta caretta</i>		LLA170/LLA171	62.7	63.7	68.7	66.7	54.9	50.1	37.8	Hand capture
10/27/2014	<i>Caretta caretta</i>		LLA172/LLA173	58.5	59.8	63.7	60.6	50.2	47.1	28.1	Hand capture
10/27/2014	<i>Caretta caretta</i>		LLA174/LLA175	59.7	60.2	66.9	64.6	53.7	46.1	31.6	Hand capture

NOTES

1. Adult male. Tail length = 470 mm.
2. Adult female. Tail length = 215 mm. Turtle missing 40% of right front flipper (healed). Shark rake marks in right side of plastron. Mating scars in ventral surface of neck.
3. Adult female. Tail length = 203 mm. STRANGE TAG (5/8/12), originally tagged 14 km south of Ocean Avenue in Melbourne Beach. Very fresh moderate scrape to nares (bleeding).
4. Adult female. Tail length = 246 mm. Weight estimated at 125.8 kg from published regression formula (davit broken so could not weigh).
5. REHAB (NON-CAUSAL). Stranding# CRM141024-01. Large subadult loggerhead dip-netted in the intake canal in poor condition (debilitated loggerhead turtle syndrome). The animal was underweight and lethargic; the heartbeat was visible. Partially healed gash in right axilla (2 cm x 8 cm) and large healed notch in distal leading edge of right front flipper. Transported to rehab by Inwater Research Group personnel. Turtle went to the Loggerhead Marinelife Center in Juno Beach for rehabilitation.
6. RECAPTURE. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 10/30/08, 11/7/11, 5/20/12, 8/9/12, 12/2/13, 1/31/14 and 10/24/14.
7. RECAPTURE. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 4/23/13 and 10/26/14.
8. REHAB (NON-CAUSAL). Stranding# CRM141027-01. Subadult loggerhead hand captured in the intake canal in poor condition (debilitated loggerhead turtle syndrome). The animal was underweight and lethargic; the plastron was sunken in and soft. Heavy epibiont load. The turtle was tagged before determination of rehab was made. Transported to rehab by the Florida Fish and Wildlife Conservation Commission stranding coordinator. Turtle went to SeaWorld in Orlando for rehabilitation.

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	
	Oct-	Year to Date	Oct-	Year to Date	Oct-	Year to Date	Oct-	Year to Date	Oct-	Year to Date	Oct-	Year to Date
Captures	17	240	1	109	0	3	0	0	0	2	18	354
Causal Mortalities	0	0	0	0	0	0	0	0	0	0	0	0
Non-causal Mortalities	0	1	0	2	0	1	0	0	0	0	0	4
Causal Injuries	0	0	0	0	0	0	0	0	0	0	0	0
Sent to rehab	2	9	0	3	0	0	0	0	0	1	2	13
Fresh Scrapes	Oct-	Year to Date	Oct-	Year to Date	Oct-	Year to Date	Oct-	Year to Date	Oct-	Year to Date	Oct-	Year to Date
None	2	31	1	20	0	2	0	0	0	1	3	54
Minor	12	186	0	79	0	1	0	0	0	1	12	267
Moderate	3	23	0	10	0	0	0	0	0	0	3	33
Severe	0	0	0	0	0	0	0	0	0	0	0	0
Percent with mod/sev scrapes	17.6%	9.6%	0.0%	9.2%	N/A	0.0%	N/A	N/A	N/A	0.0%	16.7%	9.3%

St Lucie Power Plant Canal Turtles	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	**2014	Injury / Mortality Totals by Species
Loggerhead	Total Captures	341	535	623	484	419	420	360	275	322	212	303	260	4,686
	Injuries	0	0	1	13	0	1	1	0	0	1	1	0	5
	Mortalities	0	0	0	23	0	0	0	1	0	0	0	0	2
Green	Total Captures	292	394	285	628	367	301	299	164	444	212	127	190	1,009
	Injuries	0	1	0	3	7	0	2	2	1	0	0	0	0
	Mortalities	2	1	3	1	1	1	2	0	3	3	2	2	0
Leatherback	Total Captures	0	4	2	0	1	1	0	1	2	0	2	2	35
	Injuries	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
Kemp's Ridley	Total Captures	0	2	0	3	3	0	2	0	7	0	0	0	20
	Injuries	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
Hawksbill	Total Captures	3	6	2	2	2	1	4	2	3	2	1	2	33
	Injuries	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
Injury & Mortality Yearly Totals	2	2	2	0	32	1	5	3	5	1	3	3	0	64
Total Captures per Year	636	944	914	917	852	680	725	424	751	524	362	503	351	8,073

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

**2014 is a partial year.