

## **NRR-PMDAPem Resource**

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**From:** Steve Weege <steveweege@gmail.com>  
**Sent:** Wednesday, March 01, 2017 8:51 AM  
**To:** Meghan Koperski  
**Cc:** 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; debbie.spring@noaa.gov; Kristin.Eaton@fpl.com; Jonathan Gorham; Terri.Taylor@fpl.com; William.Nurnberger@fpl.com  
**Subject:** [External\_Sender] February 2017 FPL Marine Turtle Removal Monthly Report  
**Attachments:** February 2017 Marine Turtle Captures.pdf; Monthly Report Notes 2017.pdf; FPL St Lucie Capture Summary 2017.pdf; Power Plant Causal Turtles.pdf

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

### **Subject: Marine Turtle Removal Monthly Summary February 2017**

Dear Meghan,

Attached, please find the monthly summary of marine turtle removals for February 2017. This month, we captured twelve (12) *Caretta caretta* and three (3) *Chelonia mydas* in the intake canal of the St. Lucie power plant on Hutchinson Island. Only one sea turtle was sent for rehabilitation and there were no mortalities recorded during the month of February. 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.

There was one loggerhead sea turtle sent for rehabilitation for non-causal injuries this month. On February 16<sup>th</sup>, an emaciated and lethargic subadult loggerhead was removed from the primary 5-inch barrier net. Ventral measurements were not taken due to the animal's condition. The FWC stranding coordinator transported the turtle to the Loggerhead Marinelife Center in Juno Beach for rehabilitation. This stranding was considered non-causal.

Net inspections were also performed during the month of February. On the 23<sup>rd</sup>, Underwater Engineering Services performed the quarterly net inspections on the barrier nets within the intake canal system (specifically, the 5-inch, 8-inch A-1-A, and 10-inch U.I.D.S. nets). The 8-inch net had two medium-sized holes that were promptly repaired. However, the overall condition of this net was considered poor and replacement has been scheduled for next quarter. No other holes were found in any of the remaining barrier nets during the quarterly net inspections.

Throughout the month, the permanent 5-inch barrier net experienced negligible loads of algae and jellyfish that entered into the intake canal system. A scheduled short-term power plant outage began in the third week of February. 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 new barrier net has performed as designed and no turtles have been observed beyond the 5-inch net.

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 2017. In addition, this spreadsheet 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 2004.

Please feel free to contact me with any questions.

Sincerely,

Steve

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February 2017 Marine Turtle Captures.pdf		74365
Monthly Report Notes 2017.pdf	59431	
FPL St Lucie Capture Summary 2017.pdf		76323
Power Plant Causal Turtles.pdf	85920	

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**MARINE TURTLE REMOVALS  
ST. LUCIE PLANT INTAKE CANAL  
FEBRUARY 2017**

<b>Date</b>	<b>Species</b>	<b>Note</b>	<b>Tag #'s</b>	<b>SMCL (cm)</b>	<b>SSCL (cm)</b>	<b>CSCL (cm)</b>	<b>CMCW (cm)</b>	<b>SMCW (cm)</b>	<b>SMPL (cm)</b>	<b>Weight (kg)</b>	<b>Method</b>
2/1/2017	<i>Chelonia mydas</i>	1	LLS491/LLS492	60.9	61.4	63.6	57.1	47.8	50.0	28.4	Hand capture
2/1/2017	<i>Caretta caretta</i>		MMA751/MMA755	65.9	67.2	71.1	68.9	55.9	53.2	45.5	Hand capture
2/1/2017	<i>Caretta caretta</i>	2	MMA758/MMA759	63.5	64.9	67.9	69.0	56.7	50.0	37.7	Hand capture
2/2/2017	<i>Chelonia mydas</i>	3	4A611A1445	47.6	47.9	52.3	45.5	36.9	40.3	15.0	Hand capture
2/2/2017	<i>Caretta caretta</i>		MMA756/MMA757	65.6	66.5	70.0	66.0	57.5	52.2	42.2	Hand capture
2/8/2017	<i>Caretta caretta</i>		MMA752/MMA760	68.7	70.6	74.4	73.2	57.2	53.2	49.3	North net
2/9/2017	<i>Caretta caretta</i>		MMA761/MMA762	67.2	68.3	72.8	68.6	57.1	54.4	43.6	North net
2/16/2017	<i>Caretta caretta</i>	4	MMA764/MMA765	57.6	58.7	62.5	57.9	49.4	46.7	30.4	North net
2/16/2017	<i>Caretta caretta</i>	5	STW170216-01	68.7	70.0	75.5	71.9	59.1		39.0	Barrier net
2/18/2017	<i>Chelonia mydas</i>		MMA763	28.7	29.0	35.0	25.7	22.3	23.6	2.8	Dip net
2/19/2017	<i>Caretta caretta</i>	6	MMA766/MMA767	67.6	69.3	72.8	70.9	55.7	54.3	46.9	North net
2/24/2017	<i>Caretta caretta</i>		MMA768/MMA769	62.2	62.8	67.0	63.5	50.3	46.9	32.4	South net
2/27/2017	<i>Caretta caretta</i>		MMA770/MMA771	61.6	62.4	64.9	62.8	52.9	48.8	34.5	South net
2/27/2017	<i>Caretta caretta</i>		MMA772/MMA773	61.2	61.6	64.6	64.5	54.9	48.3	34.4	South net
2/28/2017	<i>Caretta caretta</i>	7	LLP245/MMA665	59.7	60.5	64.0	62.6	50.5	44.9	27.0	South net

## NOTES

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1. RECAPTURE. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 2/17/10, 10/8/13, 11/24/13, 4/9/15, 4/23/16 and 2/1/17.
2. Held for FPL Turtle Excluder Device testing (new protocol, Cc #5 was held for three days).
3. RECAPTURE. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 7/25/11, 10/21/15, 12/28/15, 3/8/16 and 2/2/17. PAPILOMAS (Balazs Tumor Score = 2 {moderate}, Total Tumor Score = 41). No new Inconel tags inserted due to tag scars and papillomas at tagging sites.
4. Held for FPL Turtle Excluder Device testing (new protocol, Cc #7 was held for three days). Right eye closed (possibly from an old injury or congenital deformity). Large healed notch in left side, mid-carapace.
5. REHAB (NON-CAUSAL). Stranding# STW170216-01. Emaciated and lethargic subadult loggerhead removed from the primary 5-inch barrier net. Ventral measurements not taken due to the animal's condition. The FWC stranding coordinator, Morgan Young, transported the turtle to the Loggerhead Marinelife Center (LMC) in Juno Beach for rehab.
6. Held for FPL Turtle Excluder Device testing (new protocol, Cc #8 was held for two days). Test failed - turtle got stuck in the excluder grate and had to be manually freed. The animal was released after just one day of testing.
7. RECAPTURE. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 10/15/15, 10/25/16 and 2/28/17. "Auntie Roe" was a successfully released rehab turtle originally sent to LMC on 10/15/15 and released on 5/5/16. Turtle still missing 10% from right posterior carapace and 75% of right rear flipper (possible old healed shark bite injuries).

*SMCL = Straight Minimum Carapace Length*

*SMCL = Straight Standard Carapace Length*

*CSCCL = 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	
	Feb-17	Year to Date	Feb-17	Year to Date	Feb-17	Year to Date	Feb-17	Year to Date	Feb-17	Year to Date	Feb-17	Year to Date
Captures	12	26	3	10	0	0	0	0	0	0	15	36
Causal Mortalities	0	0	0	0	0	0	0	0	0	0	0	0
Non-Causal Mortalities	0	0	0	0	0	0	0	0	0	0	0	0
Causal Injuries	0	0	0	0	0	0	0	0	0	0	0	0
Sent to Rehab	1	1	0	0	0	0	0	0	0	0	1	1
Fresh Scrapes	4	7	1	4	0	0	0	0	0	0	5	11
None	8	19	2	6	0	0	0	0	0	0	10	25
Minor	0	0	0	0	0	0	0	0	0	0	0	0
Moderate	0	0	0	0	0	0	0	0	0	0	0	0
Severe	0	0	0	0	0	0	0	0	0	0	0	0
Percent with Mod/Sev Scrapes	0.0%	0.0%	0.0%	0.0%	N/A	N/A	N/A	N/A	N/A	N/A	0.0%	0.0%

St Lucie Power Plant Causal Turtles		2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	**2017	Injury / Mortality Totals by Species
Loggerhead	Total Captures	623	484	419	227	420	260	295	302	232	302	275	274	316	26	4,455
	Injuries	0	1	*3	0	1	1	0	0	1	1	0	0	0	0	5
	Mortalities	1	0	*21	0	0	0	1	0	0	0	0	0	1	0	3
Green	Total Captures	286	428	267	101	299	161	444	217	127	197	134	181	159	10	3,011
	Injuries	0	3	7	0	2	2	1	0	0	0	0	0	0	0	15
	Mortalities	1	1	1	1	2	0	3	1	2	2	0	4	0	0	18
Leatherback	Total Captures	2	0	1	1	0	1	2	0	2	2	0	2	1	0	14
	Injuries	0	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	0
Kemp's Ridley	Total Captures	1	3	3	0	2	0	7	0	0	0	2	7	6	0	31
	Injuries	0	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	0
Hawksbill	Total Captures	2	2	2	1	4	2	3	2	1	2	3	1	4	0	29
	Injuries	0	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	0
Injury & Mortality Yearly Totals		2	5	32	1	5	3	5	1	3	3	0	4	1	0	65
Total Captures per Year		914	917	692	330	725	424	751	521	362	503	414	465	486	36	7,540

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

\*\*2017 is a partial year.