

## **NRR-PMDAPem Resource**

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**From:** Steve Weege <steveweege@gmail.com>  
**Sent:** Thursday, January 05, 2017 9:23 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  
**Subject:** [External\_Sender] December 2016 FPL Marine Turtle Removal Monthly Report  
**Attachments:** December 2016 Marine Turtle Captures.pdf; Monthly Report Notes 2016.pdf; FPL St Lucie Capture Summary 2016.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 December 2016**

Dear Meghan,

Attached, please find the monthly summary of marine turtle removals for December 2016. This month, we captured ten (10) *Caretta caretta* and four (4) *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 December. 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 December 27th, an emaciated and lethargic subadult loggerhead was removed from the permanent 5-inch barrier net. There were healing prop wounds across the carapace and the turtle had extensive shark bite injuries. After consultation with FWC, Inwater Research Group biologists transported the turtle partway to the Gumbo Limbo Nature Center in Boca Raton for rehabilitation. This stranding was considered non-causal.

Throughout the month, the permanent 5-inch barrier net experienced negligible loads of algae and jellyfish that entered into the intake canal system. Overall, the 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 2016. 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 2003.

Please feel free to contact me with any questions.

Sincerely,

Steve

Steve Weege

Sr. Environmental Specialist

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**From:** Steve Weege

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MESSAGE	2350	1/5/2017 9:22:54 AM
December 2016 Marine Turtle Captures.pdf		74031
Monthly Report Notes 2016.pdf	57617	

FPL St Lucie Capture Summary 2016.pdf  
Power Plant Causal Turtles.pdf

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**MARINE TURTLE REMOVALS  
ST. LUCIE PLANT INTAKE CANAL  
DECEMBER 2016**

<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>
12/1/2016	<i>Chelonia mydas</i>	1	LLP337/LLP338	56.2	56.4	59.0	51.4	43.6	48.9	25.6	South net
12/7/2016	<i>Caretta caretta</i>		MMA698/MMA699	67.3	68.5	72.7	71.7	60.1	52.9	50.8	South net
12/7/2016	<i>Chelonia mydas</i>	2	MMA700/MMA701	65.9	66.9	69.7	63.5	51.8	55.6	39.5	Hand capture
12/12/2016	<i>Chelonia mydas</i>	3	MMA702/MMA703	53.6	53.8	57.0	52.4	42.4	43.8	20.2	North net
12/15/2016	<i>Chelonia mydas</i>		MMA704/MMA705	37.5	38.5	39.5	34.4	30.6	31.3	6.0	North net
12/15/2016	<i>Caretta caretta</i>	4	MMA706/MMA707	69.2	70.9	75.5	71.6	58.7	54.9	47.9	North net
12/18/2016	<i>Caretta caretta</i>	5	MMA708/MMA709	72.5	73.1	75.0	71.6	58.4	54.6	53.9	North net
12/22/2016	<i>Caretta caretta</i>		MMA710/MMA711	66.6	68.0	72.5	67.5	56.4	51.6	39.8	North net
12/27/2016	<i>Caretta caretta</i>	6	JRG161227-01	67.9	68.7	75.5	69.8	58.6		34.8	Barrier net
12/29/2016	<i>Caretta caretta</i>		MMA712/MMA713	75.4	76.5	83.7	76.1	61.7	59.1	70.2	North net
12/29/2016	<i>Caretta caretta</i>		MMA714/MMA715	63.6	65.1	68.5	61.2	54.8	50.5	36.7	North net
12/29/2016	<i>Caretta caretta</i>		MMA718/MMA719	59.6	60.3	64.2	60.6	50.5	46.9	29.5	North net
12/30/2016	<i>Caretta caretta</i>		MMA716/MMA717	65.8	67.4	70.9	67.1	57.2	52.0	39.1	North net
12/31/2016	<i>Caretta caretta</i>		MMA720/MMA721	64.7	66.2	69.7	67.4	55.2	50.6	39.7	North net

## NOTES

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1. RECAPTURE. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on from 9/18/11, 4/26/12, 7/7/12, 1/30/13, 5/13/13, 11/14/13, 12/16/13, 7/15/14, 9/12/14, 1/23/15, 3/12/15, 4/14/15, 7/16/15, 12/15/15, 2/21/16 and 12/1/16.
2. Held for FPL Turtle Excluder Device testing (new protocol, turtle #1 was kept three days). Old shark bite in left anterior carapace (arc-shaped bite mark visible on shell).
3. RECAPTURE. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on from 4/2/12, 10/28/12, 3/17/15 and 12/12/15. Held for FPL Turtle Excluder Device testing (new protocol, turtle #2 was kept three days).
4. Held for FPL Turtle Excluder Device testing (new protocol, turtle #3 was kept three days)
5. Turtle was held for tank testing but water quality was poor so it was released on 12/19/2016. Partially healed hooking wound on ventral side of right front flipper.
6. REHAB (NON-CAUSAL). Stranding# JRG161227-01. Emaciated and lethargic subadult loggerhead removed from the permanent 5-inch barrier net. Healing prop wounds across carapace and extensive shark bite injuries. Healing shark bite in right posterior carapace (arc-shaped piece missing from carapace and most of right rear flipper bitten off). Ventral measurements not taken due to injuries. After consultation with FWC, Inwater Research Group biologists transported the turtle partway to Gumbo Limbo Nature Center, Boca Raton for rehab.

*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	
	Dec-16	Year to Date	Dec-16	Year to Date	Dec-16	Year to Date	Dec-16	Year to Date	Dec-16	Year to Date	Dec-16	Year to Date
<b>Captures</b>	10	316	4	159	0	4	0	1	0	0	14	486
<b>Causal Mortalities</b>	0	1	0	0	0	0	0	0	0	0	0	1
<b>Non-Causal Mortalities</b>	0	0	0	8	0	0	0	0	0	0	0	8
<b>Causal Injuries Sent to Rehab</b>	1	17	0	6	0	1	0	0	0	0	1	26
<b>Fresh Scrapes</b>												
None	1	43	0	29	0	1	0	0	0	0	1	73
Minor	8	248	4	113	0	3	0	0	0	0	12	370
Moderate	1	25	0	17	0	0	0	1	0	0	1	43
Severe	0	0	0	0	0	0	0	0	0	0	0	0
<b>Percent with Mod/Sev Scrapes</b>	<b>10.0%</b>	<b>7.9%</b>	<b>0.0%</b>	<b>10.7%</b>	<b>N/A</b>	<b>0.0%</b>	<b>N/A</b>	<b>100.0%</b>	<b>N/A</b>	<b>0.0%</b>	<b>7.1%</b>	<b>8.8%</b>

St Lucie Power Plant Causal Turtles		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Injury / Mortality Totals by Species
Loggerhead	Total Captures	538	623	484	419	227	420	260	295	302	232	302	275	274	316	4,967
	Injuries	0	0	1	*3	0	1	1	0	0	1	1	0	0	0	5
	Mortalities	0	1	0	*21	0	0	0	1	0	0	0	0	0	1	3
Green	Total Captures	394	286	428	267	101	299	161	444	217	127	197	134	181	159	3,395
	Injuries	1	0	3	7	0	2	2	1	0	0	0	0	0	0	16
	Mortalities	1	1	1	1	1	2	0	3	1	2	2	0	4	0	19
Leatherback	Total Captures	4	2	0	1	1	0	1	2	0	2	2	0	2	1	18
	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	2	1	3	3	0	2	0	7	0	0	0	2	7	6	33
	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	6	2	2	2	1	4	2	3	2	1	2	3	1	4	35
	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	2	5	32	1	5	3	5	1	3	3	0	4	1	67
Total Captures per Year		944	914	917	692	330	725	424	751	521	362	503	414	465	486	8,448

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