

## **NRR-PMDAPEm Resource**

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**From:** Stephen Weege [steveweege@yahoo.com]  
**Sent:** Friday, July 05, 2013 5:08 PM  
**To:** Meghan Koperski  
**Cc:** Dave Niebch; Mike Bresette; MTP@MyFWC.com; SCO@dep.state.fl.us; Vince Munne; Audra - NOAA Federal; John Jones; Dave Clark; Ed Hollowell; Jodie Gless; Ken Frehafer; Shelley Norton; EndangeredSpecies Resource  
**Subject:** June 2013 FPL Marine Turtle Removal Monthly Report  
**Attachments:** June 2013 Marine Turtle Captures.rtf; Monthly Report Notes 2013.xls; FPL St. Lucie Capture Summary 2013.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  
June 2013**

Dear Meghan,

Attached, please find the monthly summary of marine turtle removals for June 2013. This month, we captured forty-two (42) *Caretta caretta* and eleven (11) *Chelonia mydas* in the intake canal of the St. Lucie power plant on Hutchinson Island. There were no mortalities or sea turtles sent for rehabilitation in June.

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. On June 1<sup>st</sup>, Underwater Engineering Services, Inc. (UESI) performed the quarterly net inspections on the barrier nets within the intake canal system (specifically, the temporary 5-inch; 8-inch A-1-A; and the Underwater Intrusion Detection System, or 10-inch U.I.D.S. nets). No holes were uncovered during the quarterly net inspection. On June 14<sup>th</sup>, UESI also inspected and cleaned the temporary 5-inch barrier net in response to a severe jellyfish event. Overall, the temporary barrier net has performed as designed and no turtles have been observed beyond the 5-inch net. To date, Florida Power & Light continues to work towards the installation of a permanent 5-inch barrier 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 the year 2013. 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 was added this year that tracks all causal injuries and mortalities incurred by sea turtles at the St. Lucie Plant since 2001.

Please feel free to contact me with any questions.

Sincerely,

Steve

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**From:** Stephen Weege

**Created By:** steveweege@yahoo.com

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<b>Files</b>	<b>Size</b>	<b>Date &amp; Time</b>
MESSAGE	2243	7/5/2013 5:08:02 PM
June 2013 Marine Turtle Captures.rtf		158777
Monthly Report Notes 2013.xls	166976	
FPL St. Lucie Capture Summary 2013.xls		184384
Power Plant Causal Turtles.xlsx		14246

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**MARINE TURTLE REMOVALS  
ST. LUCIE PLANT INTAKE CANAL  
JUNE 2013**

<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>
6/1/2013	<i>Caretta caretta</i>	1	EEA484/EEA485	85.3	86.4	93.1	84.3	69.1	64.1	87.3	North net
6/1/2013	<i>Caretta caretta</i>	2	EEA486/EEA487	100.4	102.6	109.0	92.0	71.0	75.8	143.2	South net
6/1/2013	<i>Caretta caretta</i>		EEA488/EEA489	74.0	74.0	81.0	78.6	64.7	60.4	69.7	Hand capture
6/2/2013	<i>Caretta caretta</i>	3	EEA490/EEA491	88.5	93.6	99.1	86.0	65.7	66.9	96.2	South net
6/2/2013	<i>Caretta caretta</i>		EEA492/EEA493	81.6	82.8	90.5	84.5	66.7	62.4	78.1	Hand capture
6/2/2013	<i>Caretta caretta</i>		EEA494/EEA495	58.0	59.1	64.1	63.7	53.1	46.9	30.4	Hand capture
6/3/2013	<i>Caretta caretta</i>	4	EEA496/EEA497	90.1	91.3	99.9	85.4	69.9	67.1	105.4	South net
6/5/2013	<i>Chelonia mydas</i>	5	BBR464/BBR465	39.5	39.9	42.6	37.0	31.8	32.3	8.4	Hand capture
6/5/2013	<i>Chelonia mydas</i>	6	EEA498/EEA499	94.4	94.5	98.9	87.7	68.4	77.3	104.7	Hand capture
6/5/2013	<i>Chelonia mydas</i>	7	EEA500/EEL501	94.4	94.7	100.7	91.5	76.7	75.7	111.3	Hand capture
6/5/2013	<i>Chelonia mydas</i>	8	EEL502/EEL503	97.8	98.0	104.1	96.4	74.5	77.4	130.1	Hand capture
6/5/2013	<i>Chelonia mydas</i>	9	UUB950	44.0	44.4	47.6	41.3	35.0	36.9	12.5	Hand capture
6/7/2013	<i>Caretta caretta</i>	10	EEL504/EEL505	99.3	99.3	107.9	90.9	71.4	76.2	133.8	South net
6/9/2013	<i>Caretta caretta</i>		EEL506/EEL507	79.7	80.5	64.4	87.9	82.0	61.8	78.0	South net
6/10/2013	<i>Caretta caretta</i>	11	EEL508/EEL509	89.5	91.5	95.7	84.4	69.6	68.6	103.4	South net

Date	Species	Note	Tag #'s	SMCL (cm)	SSCL (cm)	CSCL (cm)	CMCW (cm)	SMCW (cm)	SMPL (cm)	Weight (kg)	Method
6/10/2013	<i>Caretta caretta</i>	12	EEL510/EEL511	88.8	90.0	94.5	82.9	67.4	69.4	90.5	South net
6/12/2013	<i>Caretta caretta</i>	13	EEL512/EEL513	99.9	100.0	104.4	96.9	76.6	78.8	131.2	Hand capture
6/12/2013	<i>Caretta caretta</i>		EEL514/EEL515	77.3	79.2	86.2	82.3	64.5	63.4	72.4	Hand capture
6/12/2013	<i>Caretta caretta</i>		EEL516/EEL518	61.9	62.2	66.5	65.1	52.8	48.2	33.4	Hand capture
6/13/2013	<i>Caretta caretta</i>		EEL519/EEL520	65.7	66.7	72.5	68.4	54.0	50.1	39.5	South net
6/14/2013	<i>Chelonia mydas</i>	14	EEL521/EEL522	50.6	50.9	54.3	46.7	40.9	42.3	17.8	South net
6/14/2013	<i>Caretta caretta</i>		EEL523/EEL524	59.7	60.6	66.8	63.4	53.6	46.7	33.3	North net
6/15/2013	<i>Chelonia mydas</i>	15	BBR464/BBR465	39.2	39.4	43.0	37.0	31.9	32.1	7.9	Hand capture
6/15/2013	<i>Chelonia mydas</i>	16	EEL517/EEL525	106.1	106.3	112.6	101.4	79.3	85.5	171.1	Hand capture
6/15/2013	<i>Caretta caretta</i>	17	EEL551/EEL552	87.7	88.0	93.0	84.9	67.5	67.5	85.0	Hand capture
6/16/2013	<i>Caretta caretta</i>	18	EEL553/EEL554	93.1	95.4	102.6	89.7	72.9	75.7	131.7	South net
6/16/2013	<i>Caretta caretta</i>	19	EEL555/EEL556	90.1	91.2	97.1	92.0	74.5	73.8	119.9	Hand capture
6/16/2013	<i>Caretta caretta</i>	20	EEL557/EEL558	104.0	105.6	112.7	97.7	78.8	82.3	170.1	North net
6/16/2013	<i>Caretta caretta</i>		EEL559/EEL560	68.4	68.7	74.3	69.6	55.4	50.9	39.7	Hand capture
6/20/2013	<i>Caretta caretta</i>		EEL561/EEL562	71.6	72.9	77.6	74.1	57.7	55.4	56.1	South net
6/21/2013	<i>Caretta caretta</i>	21	EEL563/EEL564	95.7	96.5	102.4	92.6	71.9	75.4	135.9	North net
6/21/2013	<i>Chelonia mydas</i>		EEL565/EEL566	47.4	48.8	50.6	43.3	37.4	39.1	12.9	South net
6/24/2013	<i>Caretta caretta</i>		EEL567/EEL568	82.1	82.6	87.7	84.3	61.4	64.2	81.0	South net
6/24/2013	<i>Caretta caretta</i>	22	EEL569/EEL570	89.7	90.8	101.0	89.0	67.6	68.0	103.7	South net
6/26/2013	<i>Caretta caretta</i>		EEL571/EEL572	56.2	57.1	63.0	61.9	50.8	45.8	27.0	Hand capture

Date	Species	Note	Tag #'s	SMCL (cm)	SSCL (cm)	CSCL (cm)	CMCW (cm)	SMCW (cm)	SAMPL (cm)	Weight (kg)	Method
6/26/2013	<i>Caretta caretta</i>		EEL573/EEL574	59.4	60.4	65.6	62.8	51.2	47.3	33.3	Hand capture
6/26/2013	<i>Caretta caretta</i>		EEL575/EEL576	56.2	57.4	63.5	62.3	50.9	48.1	29.5	Hand capture
6/27/2013	<i>Caretta caretta</i>	23	A8438/A8439	61.2	62.6	69.1	66.3	55.6	49.1	38.8	Hand capture
6/27/2013	<i>Caretta caretta</i>		EEL577/EEL578						46.6	32.9	Hand capture
6/28/2013	<i>Caretta caretta</i>	24	EEL579/EEL580	86.1	87.7	96.2	86.5	66.2	62.7	80.8	Hand capture
6/28/2013	<i>Caretta caretta</i>		EEL581/EEL582	78.5	79.7	85.8	78.3	62.6	62.8	75.9	Hand capture
6/28/2013	<i>Caretta caretta</i>	25	EEL583/EEL584	86.8	87.4	92.2	84.4	66.2	67.3	85.4	Hand capture
6/28/2013	<i>Chelonia mydas</i>	26	EEL586/EEL587	41.7	42.1	45.2	39.4	33.2	35.2	9.4	Hand capture
6/28/2013	<i>Caretta caretta</i>	27	EEL588/EEL589	98.6	98.7	107.7	94.8	73.8	75.9	147.6	Hand capture
6/28/2013	<i>Caretta caretta</i>	28	EEL590/EEL591	90.8	92.2	99.1	96.4	74.1	71.0	127.1	Hand capture
6/28/2013	<i>Caretta caretta</i>	29	EEL592/EEL593	94.5	96.5	101.4	89.2	73.9	75.3	130.1	North net
6/28/2013	<i>Caretta caretta</i>	30	EEL594/EEL595	84.7	85.2	93.5	85.1	67.8	66.4	93.8	Hand capture
6/29/2013	<i>Caretta caretta</i>	31	EEL596/EEL597	98.5	100.3	110.0	94.7	74.2	75.8	135.7	Hand capture
6/29/2013	<i>Caretta caretta</i>	32	EEL598/EEL599	88.3	89.3	98.0	85.7	66.0	68.5	98.5	Hand capture
6/29/2013	<i>Caretta caretta</i>		EEL600/EEL601	67.2	68.7	72.8	71.3	58.5	54.7	48.6	Hand capture
6/29/2013	<i>Caretta caretta</i>		EEL602/EEL603	65.3	66.5	71.5	70.0	57.6	51.8	42.4	Hand capture
6/29/2013	<i>Chelonia mydas</i>	33	EEL604/EEL605	91.1	92.4	99.5	91.0	72.7	75.3	123.8	Hand capture
6/29/2013	<i>Caretta caretta</i>		EEL606/EEL607	60.3	61.4	67.5	63.5	54.1	46.7	31.4	Hand capture

## NOTES

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1. Adult female. Tail length = 208 mm. Deep moderate fresh scrape on top of head.
2. Adult female. Tail length = 235 mm. Turtle missing 50% of right front flipper (healed). Possible shark attack victim based on old healed rake marks on carapace and extensive scar tissue in remaining portion of flipper.
3. Adult female. Tail length = 255 mm.
4. Adult female. Tail length = 229 mm.
5. RECAPTURE. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 11/24/12, 1/30/13, 5/8/13 and 6/5/13. Skull exposed from moderate fresh scrape behind right eye.
6. Adult male. Tail length = 367 mm. Turtle has soft plastron.
7. Adult male. Tail length = 420 mm. Multiple deep fresh scrapes in anterior carapace and skull exposed from deep, moderate fresh scrape to top of head.
8. Adult female. Tail length = 307 mm. Mating wounds from males' claws in both shoulders at margins of carapace.
9. RECAPTURE. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 2/9/10, 4/3/13 and 6/5/13.
10. Adult female. Tail length = 190 mm.
11. Adult female. Tail length = 290 mm. Partially healed wounds on the right front flipper. Shark rakings in the plastron.
12. Adult female. Tail length = 205 mm.
13. Adult female. Tail length = 277 mm. Possible mating scars on ventral surface of neck.
14. RECAPTURE. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 11/6/08, 5/18/11, 10/11/11 and 6/14/13.
15. RECAPTURE. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 11/24/12, 1/30/13, 5/8/13, 6/5/13 and 6/15/13.
16. Adult female. Tail length = 305 mm. Mating wounds evident.
17. Adult female. Tail length = 215 mm.
18. Adult female. Tail length = 228 mm.
19. Adult female. Tail length = 234 mm.
20. Adult female. Tail length = 281 mm. Deep cuts (healing) in both front flippers and ventral side of neck - cause unknown. Deep fresh scrape above right eye (skull exposed). Broken phalanges in left front flipper and bleeding cuts in both front flippers.
21. Adult female. Tail length = 309 mm.
22. Adult female. Tail length = 171 mm. Turtle missing 25% of right front flipper (healed).
23. STRANGE TAG (Inconel tags A8438 and A8439). Hooking wound in right shoulder.
24. Adult female. Tail length = 255 mm. Possible hooking wound behind lower tomium.
25. Adult female. Tail length = 170 mm.
26. RECAPTURE. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 3/19/08 and 6/28/13.
27. Adult female. Tail length = 222 mm.
28. Adult female. Tail length = 222 mm.
29. Adult female. Tail length = 305 mm.
30. Adult female. Tail length = 172 mm.
31. Adult female. Tail length = 283 mm.
32. Adult female. Tail length = 175 mm.
33. Adult female. Tail length = 245 mm. Turtle has minor healed flipper damage and multiple wounds between rear flippers (inguinal and tail). Shark rakings in posterior carapace.

*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*



	<b>Loggerheads</b> <i>(Caretta caretta)</i>		<b>Green turtles</b> <i>(Chelonia mydas)</i>		<b>Hawksbills</b> <i>(Eretmochelys imbricata)</i>		<b>Leatherbacks</b> <i>(Dermochelys coriacea)</i>		<b>Kemp's ridley</b> <i>(Lepidochelys kempii)</i>		<b>Overall Totals</b>	
	<b>Jun-13</b>	<b>Year to Date</b>	<b>Jun-13</b>	<b>Year to Date</b>	<b>Jun-13</b>	<b>Year to Date</b>	<b>Jun-13</b>	<b>Year to Date</b>	<b>Jun-13</b>	<b>Year to Date</b>	<b>Jun-13</b>	<b>Year to Date</b>
<b>Captures</b>	<b>42</b>	172	<b>11</b>	103	<b>0</b>	2	<b>0</b>	1	<b>0</b>	0	<b>53</b>	278
<b>Causal Mortalities</b>	<b>0</b>	0	<b>0</b>	0	<b>0</b>	0	<b>0</b>	0	<b>0</b>	0	<b>0</b>	0
<b>Non-causal Mortalities</b>	<b>0</b>	1	<b>0</b>	1	<b>0</b>	0	<b>0</b>	0	<b>0</b>	0	<b>0</b>	2
<b>Causal Injuries</b>	<b>0</b>	0	<b>0</b>	0	<b>0</b>	0	<b>0</b>	0	<b>0</b>	0	<b>0</b>	0
<b>Sent to rehab</b>	<b>0</b>	3	<b>0</b>	3	<b>0</b>	0	<b>0</b>	0	<b>0</b>	0	<b>0</b>	6
<b>Fresh Scrapes</b>	<b>Jun-13</b>	<b>Year to Date</b>	<b>Jun-13</b>	<b>Year to Date</b>	<b>Jun-13</b>	<b>Year to Date</b>	<b>Jun-13</b>	<b>Year to Date</b>	<b>Jun-13</b>	<b>Year to Date</b>	<b>Jun-13</b>	<b>Year to Date</b>
<b>None</b>	<b>13</b>	31	<b>0</b>	13	<b>0</b>	1	<b>0</b>	0	<b>0</b>	0	<b>13</b>	45
<b>Minor</b>	<b>26</b>	129	<b>9</b>	78	<b>0</b>	0	<b>0</b>	1	<b>0</b>	0	<b>35</b>	208
<b>Moderate</b>	<b>3</b>	12	<b>2</b>	12	<b>0</b>	1	<b>0</b>	0	<b>0</b>	0	<b>5</b>	25
<b>Severe</b>	<b>0</b>	0	<b>0</b>	0	<b>0</b>	0	<b>0</b>	0	<b>0</b>	0	<b>0</b>	0
<b>Percent with mod/sev scrapes</b>	<b>7.1%</b>	7.0%	<b>18.2%</b>	11.7%	<b>N/A</b>	50.0%	<b>N/A</b>	0.0%	<b>N/A</b>	N/A	<b>9.4%</b>	9.0%

St Lucie Power Plant Canal Turtles	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	**2013	Injury / Mortality Totals by Species	
Loggerhead	Total Captures	270	341	538	633	486	419	227	420	300	299	302	232	172	4,585
	Injuries	0	0	0	1	13	0	0	1	1	0	0	0	0	7
	Mortalities	1	0	0	1	0	21	0	0	0	1	0	0	0	24
Green	Total Captures	321	292	394	286	428	267	101	209	161	444	217	127	103	1,640
	Injuries	0	0	1	0	3	7	0	2	2	1	0	0	0	14
	Mortalities	4	2	4	3	0	1	1	2	0	3	1	2	0	19
Leatherback	Total Captures	2	0	4	2	0	1	1	0	1	2	0	2	3	19
	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	0	0	1	3	3	0	2	0	0	0	0	0	13
	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	6	3	6	2	2	2	1	4	2	3	2	1	2	36
	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														66	
Total Captures per Year														800	
														636	
														964	
														918	
														692	
														580	
														725	
														424	
														751	
														524	
														362	
														278	
														8,054	

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

\*\*2013 is a partial year