

## NRR-PMDAPEm Resource

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**From:** Stephen Weege [steveweege@yahoo.com]  
**Sent:** Sunday, May 05, 2013 3:40 PM  
**To:** Meghan Koperski  
**Cc:** Dave Niebch; Mike Bresette; MTP@MyFWC.com; SCO@dep.state.fl.us; Vince Munne; Dave Clark; Ed Hollowell; Jodie Gless; Ken Frehafer; Shelley Norton; EndangeredSpecies Resource  
**Subject:** April 2013 FPL Marine Turtle Removal Monthly Report  
**Attachments:** April 2013 Marine Turtle Captures.rtf; Monthly Report Notes 2013.pdf; FPL St Lucie Capture Summary 2013.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  
April 2013**

Dear Meghan,

Attached, please find the monthly summary of marine turtle removals for April 2013. This month, we captured thirty-five (35) *Caretta caretta*, eight (8) *Chelonia mydas*, one (1) *Eretmochelys imbricata* and one (1) *Dermochelys coriacea* 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 April.

On April 11<sup>th</sup>, a subadult loggerhead sea turtle was found floating at the surface of the temporary 5-inch barrier net. This animal was underweight and lethargic with a heavy epibiont load. There were no other wounds or abnormalities other than a poor body condition and minor healed flipper damage. After consultation with the Florida Fish & Wildlife Conservation Commission, the turtle was held overnight and transported the next day by Inwater Research Group biologists to the Loggerhead Marinelife Center in Juno Beach. This incident was considered non-causal to power plant operations.

Throughout the month, the 5-inch barrier net experienced moderate loads of algae that entered into the intake canal system; whereas jellyfish entrainment ranged from light to severe. 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 (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

Steve Weege  
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**From:** Stephen Weege

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

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MESSAGE	2541	5/5/2013 3:39:51 PM
April 2013 Marine Turtle Captures.rtf		149350
Monthly Report Notes 2013.pdf	81064	
FPL St Lucie Capture Summary 2013.pdf		113735
Power Plant Causal Turtles.pdf	108972	

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

Date	Species	Note	Tag #'s	SMCL (cm)	SSCL (cm)	CSCL (cm)	CMCW (cm)	SMCW (cm)	SMPL (cm)	Weight (kg)	Method
4/3/2013	<i>Caretta caretta</i>	1	BBP224/BBP225	60.1	61.2	64.6	59.3	50.2	48.4	31.6	Hand capture
4/3/2013	<i>Chelonia mydas</i>	2	BBP273/BBP274	46.4	46.6	49.0	44.1	37.9	38.4	12.9	Hand capture
4/3/2013	<i>Caretta caretta</i>		EEA294/EEA295	54.5	55.3	59.5	57.2	48.3	45.5	26.3	Hand capture
4/3/2013	<i>Chelonia mydas</i>	3	UUB950	43.6	44.1	47.2	41.3	35.2	36.7	11.3	Hand capture
4/8/2013	<i>Dermochelys coriacea</i>	4	EEA296/EEA297		135.0	148.0	124.0	81.5			Hand capture
4/9/2013	<i>Caretta caretta</i>		EEA298/EEA299	58.2	58.7	62.3	61.2	49.9	47.8	30.2	South net
4/9/2013	<i>Caretta caretta</i>	5	EEA300/EEA301	89.3	90.3	92.3	82.8	71.3	63.5	88.7	South net
4/11/2013	<i>Chelonia mydas</i>	6	BBR036/EEA304	46.4	46.7	50.8	44.5	36.9	39.4	13.8	North net
4/11/2013	<i>Chelonia mydas</i>	7	EEA302/EEA303	49.6	49.8	53.1	43.6	35.7	40.2	16.9	North net
4/11/2013	<i>Caretta caretta</i>	8	JRG130411-01	69.9	70.3	73.8	71.8	55.1	52.8	39.1	Barrier net
4/12/2013	<i>Caretta caretta</i>		EEA305/EEA306	53.9	54.9	59.5	59.9	50.3	44.1	26.4	South net
4/12/2013	<i>Chelonia mydas</i>	9	YYR307	45.0	45.2	48.0	44.1	37.6	37.2	13.8	North net
4/13/2013	<i>Caretta caretta</i>		EEA307/EEA308	65.9	66.9	72.3	70.0	53.7	53.0	41.4	North net
4/13/2013	<i>Caretta caretta</i>		EEA309/EEA310	60.1	61.1	66.8	65.5	50.8	47.1	34.6	North net
4/14/2013	<i>Chelonia mydas</i>	10	BBP394/BBR499	53.9	54.2	57.2	50.1	40.3	44.1	21.5	North net

Date	Species	Note	Tag #'s	SMCL (cm)	SSCL (cm)	CSCL (cm)	CMCW (cm)	SMCW (cm)	SMPL (cm)	Weight (kg)	Method
4/16/2013	<i>Caretta caretta</i>		EEA311/EEA312	81.6	82.4	88.1	78.9	60.4	63.0	84.3	South net
4/16/2013	<i>Caretta caretta</i>		EEA313/EEA314	62.3	64.0	68.0	66.0	57.4	51.0	39.3	South net
4/17/2013	<i>Caretta caretta</i>	11	EEA150	77.7	78.7	80.5	76.3	60.8	55.0	70.6	North net
4/17/2013	<i>Caretta caretta</i>		EEA315/EEA316	57.5	58.3	63.2	61.2	50.7	45.5	29.1	North net
4/20/2013	<i>Caretta caretta</i>	12	BBP224/BBP225	60.1	61.3	66.2	61.5	50.4	48.4	33.0	North net
4/20/2013	<i>Caretta caretta</i>		EEA317/EEA318	60.9	61.6	67.7	64.4	52.3	48.5	36.6	Dip net
4/20/2013	<i>Caretta caretta</i>		EEA319/EEA320	54.8	55.5	61.3	59.6	48.6	42.6	25.4	North net
4/21/2013	<i>Caretta caretta</i>	13	BBR037/BBR038	64.3	65.4	70.2	64.1	51.7	47.6	32.7	North net
4/21/2013	<i>Chelonia mydas</i>	14	EEA321/EEA322	43.5	43.9	47.6	43.0	36.7	38.2	12.8	North net
4/22/2013	<i>Caretta caretta</i>	15	BBR401/BBR402	56.0	57.4	62.2	61.3	50.9	45.2	28.6	North net
4/23/2013	<i>Caretta caretta</i>		EEA323/EEA324	80.9	82.1	87.6	76.8	60.8	63.7	72.7	South net
4/24/2013	<i>Caretta caretta</i>	16	UUH751	83.1	84.0	88.8	78.9	61.3	62.9	71.6	South net
4/25/2013	<i>Caretta caretta</i>	17	4327270833	83.2	84.6	90.5	81.1	65.6	64.1	82.6	North net
4/25/2013	<i>Caretta caretta</i>		EEA325/EEA326	65.2	65.7	72.1	66.0	55.7	51.3	40.7	North net
4/25/2013	<i>Caretta caretta</i>		EEA327/EEA328	60.3	61.2	66.0	61.5	52.1	48.3	32.6	North net
4/26/2013	<i>Caretta caretta</i>	18	EEA329/EEA330	84.4	85.3	92.0	82.6	65.9	62.2	85.5	North net
4/26/2013	<i>Caretta caretta</i>		EEA331/EEA332	70.2	70.9	76.7	75.8	60.1	54.4	49.9	North net
4/27/2013	<i>Chelonia mydas</i>	19	BBR217/EEA333	45.9	46.0	49.2	43.0	35.5	37.6	13.1	South net
4/27/2013	<i>Caretta caretta</i>	20	EEA334/EEA335	91.6	93.0	100.4	93.9	73.9	70.0	117.9	North net
4/27/2013	<i>Caretta caretta</i>		EEA336/EEA337	78.7	79.2	83.9	77.1	61.4	58.7	65.9	South net

Date	Species	Note	Tag #'s	SMCL (cm)	SSCL (cm)	CSSL (cm)	CMCW (cm)	SMCW (cm)	SMPL (cm)	Weight (kg)	Method
4/28/2013	<i>Caretta caretta</i>	21	EEA338/EEA339	83.2	86.2	93.5	85.0	68.1	62.9	87.9	North net
4/28/2013	<i>Caretta caretta</i>		EEA340/EEA341	62.5	64.1	69.1	65.7	53.4	49.9	37.5	South net
4/29/2013	<i>Caretta caretta</i>	22	EEA342/EEA343	94.8	95.7	102.8	92.6	70.2	74.6	137.3	North net
4/29/2013	<i>Caretta caretta</i>	23	EEA344/EEA345	91.1	94.1	98.0	89.3	70.6	65.6	114.8	North net
4/29/2013	<i>Caretta caretta</i>		EEA346/EEA347	69.9	71.0	77.1	69.6	56.3	53.8	44.7	North net
4/29/2013	<i>Caretta caretta</i>		EEA348/EEA349	70.4	71.5	72.4	72.8	60.7	55.1	51.1	South net
4/29/2013	<i>Caretta caretta</i>		EEA350/EEA351	71.3	73.0	78.2	75.5	58.9	54.4	47.2	North net
4/30/2013	<i>Caretta caretta</i>		EEA352/EEA353	70.6	71.5	76.8	75.3	58.1	54.3	44.7	Barrier net
4/30/2013	<i>Eretmochelys imbricata</i>	24	EEA354/EEA355	86.8	90.8	97.0	91.1	68.6	66.5	95.2	South net
4/30/2013	<i>Caretta caretta</i>		EEA356/EEA357	66.4	67.3	74.2	73.5	57.8	50.1	37.6	Dip net

## NOTES

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1. RECAPTURE. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 10/9/11, 1/8/12, 2/5/12, 5/24/12, 7/5/12 and 4/3/13.
2. RECAPTURE. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 10/4/07, 10/20/11, 7/21/12, 12/12/12, 1/6/13 and 4/3/13.
3. RECAPTURE. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 2/9/10 and 4/3/13. Remaining inconel tag in right front flipper.
4. Adult female. Weight estimated by crane operator at 800 lbs. (+/-20lbs based on crane's scale). Turtle missing 30% of left front flipper and 5% of right front flipper (flipper damage still healing).
5. Adult male. Tail length = 445 mm. Skull exposed from moderate fresh scrape behind right eye.
6. RECAPTURE. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 2/6/06, 4/3/09, 7/28/09, 12/3/09, 2/11/10, 9/3/10, 5/18/11, 1/9/12, 10/31/12 and 4/11/13.
7. RECAPTURE. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 5/29/09, 7/24/09, 11/18/11 and 4/11/13. PAPILOMAS (Balazs Score=1 {light}, Total Tumor Score=1). New inconel tags applied on this capture event.
8. REHAB (NON-CAUSAL). Stranding# JRG130411-01. Turtle found floating at the surface of the temporary 5-inch barrier net. Underweight and lethargic with heavy epibiont load. Minor healed flipper damage. Inwater Research Group staff transported turtle to Loggerhead Marinelife Center in Juno Beach the next day per FWC request. This incident was NOT considered causal to power plant operations.
9. RECAPTURE. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 9/6/08, 12/6/11 and 4/12/13. Upper tomium cracked (moderate fresh scrape from entrainment).
10. 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 and 4/14/13.
11. Adult male. Tail length = 445 mm. RECAPTURE. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 5/30/89, 9/6/90, 10/11/90, 10/15/90, 2/23/91, 8/10/92, 8/27/92, 9/21/92, 1/6/93, 6/8/93, 12/29/93, 3/22/94, 10/31/94, 3/17/95, 4/20/95, 2/7/96, 4/7/96, 7/11/96, 7/23/96, 7/29/96, 9/22/96, 10/9/96, 6/13/97, 5/15/98, 4/15/00, 6/13/00, 9/8/00, 11/19/00, 11/15/01, 9/16/02, 4/30/03, 11/24/03, 3/31/04, 9/15/04, 10/25/04, 8/10/05, 8/16/06, 4/30/08, 9/26/08, 8/19/09, 12/28/12 and 4/17/13. Soft plastron. Sex determination based on tail length.
12. RECAPTURE. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 10/9/11, 1/18/12, 2/5/12, 5/24/12, 7/5/12, 4/3/13 and 4/20/13. Skull exposed from moderate fresh scrape to head.
13. RECAPTURE. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 1/13/12, 9/12/12 and 4/21/13.
14. RECAPTURE. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 10/30/11 and 4/21/13. New inconel tags inserted on this capture event. Scar tissue apparent in left shoulder (possibly an old hooking wound).
15. RECAPTURE. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 9/10/12 and 4/22/13.
16. RECAPTURE. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 7/29/10 and 4/24/13. Sex determination based on tail length.
17. RECAPTURE. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 6/11/97, 7/21/99, 8/10/00, 11/3/00, 8/22/01, 3/21/02, 6/24/03, 11/2/04, 7/15/05, 8/6/06, 9/21/06, 9/16/08 and 4/25/13. Multiple tag scars in both front flippers.
18. Adult male. Tail length = 430 mm. Lower tomium completely bifurcated (healed); possibly an old injury or congenital deformity.
19. RECAPTURE. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 5/31/12 and 4/27/13. One new flipper tag inserted on this capture event (inconel tag #EEA333).
20. Adult female. Tail length = 234 mm.
21. Adult female. Tail length = 179 mm.
22. Adult female. Tail length = 261 mm.



23. Adult male. Tail length = 506 mm.
24. Adult female. Tail length = 214 mm. Moderate fresh scrape just behind nares (bone exposed). Possible Cc/Ei hybrid. Cream colored plastron like a loggerhead. Scute patterning like a hawksbill (4 costal scutes, 11 marginals and 4 inframarginals). Head narrow and posterior scutes slightly imbricated. Biopsy taken for genetic analysis.

*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>Apr-13</b>	<b>Year to Date</b>	<b>Apr-13</b>	<b>Year to Date</b>	<b>Apr-13</b>	<b>Year to Date</b>	<b>Apr-13</b>	<b>Year to Date</b>	<b>Apr-13</b>	<b>Year to Date</b>	<b>Apr-13</b>	<b>Year to Date</b>
<b>Captures</b>	<b>35</b>	83	<b>8</b>	61	<b>1</b>	1	<b>1</b>	1	<b>0</b>	0	<b>45</b>	146
<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>	0	<b>0</b>	1	<b>0</b>	0	<b>0</b>	0	<b>0</b>	0	<b>0</b>	1
<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>1</b>	2	<b>0</b>	3	<b>0</b>	0	<b>0</b>	0	<b>0</b>	0	<b>1</b>	5
<b>Fresh Scrapes</b>	<b>Apr-13</b>	<b>Year to Date</b>	<b>Apr-13</b>	<b>Year to Date</b>	<b>Apr-13</b>	<b>Year to Date</b>	<b>Apr-13</b>	<b>Year to Date</b>	<b>Apr-13</b>	<b>Year to Date</b>	<b>Apr-13</b>	<b>Year to Date</b>
<b>None</b>	<b>6</b>	14	<b>0</b>	8	<b>0</b>	0	<b>0</b>	0	<b>0</b>	0	<b>6</b>	22
<b>Minor</b>	<b>27</b>	66	<b>7</b>	47	<b>0</b>	0	<b>1</b>	1	<b>0</b>	0	<b>35</b>	114
<b>Moderate</b>	<b>2</b>	3	<b>1</b>	6	<b>1</b>	1	<b>0</b>	0	<b>0</b>	0	<b>4</b>	10
<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>5.7%</b>	3.6%	<b>12.5%</b>	9.8%	<b>100.0%</b>	100.0%	<b>0.0%</b>	0.0%	<b>N/A</b>	N/A	<b>8.9%</b>	6.8%

St Lucie Power Plant Causal 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	623	484	419	227	420	260	295	302	232	83	4,494
	Injuries	0	0	0	0	1	*3	0	1	1	0	0	1	0	7
	Mortalities	1	0	0	1	0	*21	0	0	0	0	1	0	0	24
Green	Total Captures	321	292	394	286	428	267	101	299	161	444	217	127	61	3,398
	Injuries	0	0	1	0	3	7	0	2	2	1	0	0	0	16
	Mortalities	4	2	1	1	1	1	1	2	0	3	1	2	0	19
Leatherback	Total Captures	2	0	4	2	0	1	1	0	1	2	0	2	1	16
	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	1	0	2	1	3	3	0	2	0	7	0	0	0	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
Hawksbill	Total Captures	6	3	6	2	2	2	1	4	2	3	2	1	1	35
	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		5	2	2	2	5	32	1	5	3	5	1	3	0	66
Total Captures per Year		600	636	944	914	917	692	330	725	424	751	521	362	146	7,962

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

\*\*2013 is a partial year