

## **NRR-PMDAPEm Resource**

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**From:** Steve Weege <steveeweeg@gmail.com>  
**Sent:** Saturday, May 07, 2016 11:50 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  
**Subject:** [External\_Sender] April 2016 FPL Marine Turtle Removal Monthly Report  
**Attachments:** April 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**

**April 2016**

Dear Meghan,

Attached, please find the monthly summary of marine turtle removals for April 2016. This month, we captured thirty-nine (39) *Caretta caretta*, twelve (12) *Chelonia mydas*, and one (1) *Lepidochelys kempii* in the intake canal of the St. Lucie power plant on Hutchinson Island. Two sea turtles were sent for rehabilitation during the month of April. Both strandings this month were non-causal. The Florida Fish and Wildlife Conservation Commission (FWC) was consulted for each stranding and the appropriate form was filed with the state through the Sea Turtle Stranding and Salvage Network.

Two loggerheads were sent to rehabilitation facilities for non-causal injuries this month. On April 21<sup>st</sup>, a large subadult loggerhead was recovered from the tangle nets with recent shark bite wounds. There was a deep laceration exposing bone in the right rear flipper. There were also shark rakings across the carapace and plastron. Secondly, there was an impact wound or break in the anterior carapace, possibly from an old boat strike injury. After consultation with FWC, Inwater Research Group (IRG) biologists transported the turtle partway to the Gumbo Limbo Nature Center, Boca Raton for rehabilitation. On April 22<sup>nd</sup>, an underweight and lethargic subadult loggerhead was recovered from the tangle nets. This turtle appeared to be suffering from Chronic Debilitation Syndrome. There were necrotic sores along the ventral marginals as well as a small bleeding wound in the anterior plastron. IRG biologists transported the turtle partway to the rehab facility at SeaWorld Orlando. Both of these live strandings were considered non-causal.

Throughout the month, the permanent 5-inch barrier net experienced light 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 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 2003.

Please feel free to contact me with any questions.

Sincerely,

Steve

Steve Weege

Sr. Environmental Specialist

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**Subject:** [External\_Sender] April 2016 FPL Marine Turtle Removal Monthly Report  
**Sent Date:** 5/7/2016 11:49:54 AM  
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**From:** Steve Weege

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

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Files	Size	Date & Time
MESSAGE	2905	5/7/2016 11:50:21 AM
April 2016 Marine Turtle Captures.pdf	101296	
Monthly Report Notes 2016.pdf	86258	
FPL St Lucie Capture Summary 2016.pdf	127707	
Power Plant Causal Turtles.pdf	126763	

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# MARINE TURTLE REMOVALS ST. LUCIE PLANT INTAKE CANAL APRIL 2016

Date	Species	Note	Tag #'s	SMCL (cm)	SSCL (cm)	CSCL (cm)	CMCW (cm)	SMCW (cm)	SMPL (cm)	Weight (kg)	Method
4/1/2016	<i>Chelonia mydas</i>		LLS399/LLS400	43.5	43.9	46.4	39.4	35.0	35.4	9.7	North net
4/1/2016	<i>Caretta caretta</i>		LLS401/LLS402	65.1	66.5	70.7	65.3	50.1	50.4	36.9	South net
4/3/2016	<i>Caretta caretta</i>		LLS403/LLS404	64.0	66.0	70.5	67.0	53.1	49.9	36.7	North net
4/3/2016	<i>Caretta caretta</i>		LLS405/LLS406	63.5	64.4	68.4	64.5	54.5	49.6	40.6	North net
4/3/2016	<i>Lepidochelys kempii</i>		LLS407/LLS408	50.6	51.7	54.2	56.2	50.6	40.1	18.1	South net
4/4/2016	<i>Caretta caretta</i>		LLS409/LLS410	61.8	62.9	68.1	67.2	55.8	49.6	40.0	North net
4/5/2016	<i>Caretta caretta</i>		LLS411/LLS412	69.0	70.4	76.7	73.6	59.1	54.8	50.2	South net
4/5/2016	<i>Caretta caretta</i>		LLS413/LLS414	62.8	69.2	74.5	74.7	58.9	54.3	48.6	North net
4/8/2016	<i>Caretta caretta</i>		LLS415/LLS416	63.3	64.7	69.2	66.5	54.6	49.9	38.4	North net
4/9/2016	<i>Chelonia mydas</i>		982000406133564	24.8	25.4	26.9	20.8	19.4	20.6	1.7	Barrier net
4/9/2016	<i>Caretta caretta</i>		LLS417/LLS418	64.1	65.8	70.9	66.8	53.8	48.9	37.2	North net
4/9/2016	<i>Caretta caretta</i>		LLS419/LLS420	64.7	66.2	77.6	66.2	53.7	50.3	42.1	North net
4/9/2016	<i>Caretta caretta</i>		LLS421/LLS422	63.0	63.7	69.0	67.5	54.7	50.3	39.1	North net
4/10/2016	<i>Caretta caretta</i>		LLS423/LLS424	64.0	66.3	70.9	66.2	55.8	49.7	39.6	South net
4/13/2016	<i>Caretta caretta</i>		LLS425/LLS426	69.6	70.9	73.4	71.1	58.8	55.8	51.2	North net

Date	Species	Note	Tag #'s	SMCL (cm)	SSCL (cm)	CSCL (cm)	CMCW (cm)	SMCW (cm)	SMPL (cm)	Weight (kg)	Method
4/13/2016	<i>Chelonia mydas</i>		LLS427/LLS428	43.4	43.7	46.3	43.1	36.3	36.0	11.9	North net
4/13/2016	<i>Caretta caretta</i>		LLS429/LLS430	65.1	66.2	71.9	66.5	52.6	50.7	41.9	North net
4/14/2016	<i>Caretta caretta</i>		LLS431/LLS432	65.9	67.2	72.5	70.5	53.8	51.8	39.7	North net
4/16/2016	<i>Chelonia mydas</i>	1	BBP274	51.6	51.9	55.5	49.5	40.8	41.8	16.9	South net
4/17/2016	<i>Caretta caretta</i>	2	LLA065/LLA066	60.1	61.3	65.0	64.5	51.9	48.8	34.0	North net
4/17/2016	<i>Chelonia mydas</i>		LLS433/LLS434	42.5	43.0	45.2	39.0	33.8	36.6	10.3	North net
4/17/2016	<i>Chelonia mydas</i>		LLS435/LLS436	52.0	52.4	55.1	49.9	41.3	42.2	17.8	North net
4/17/2016	<i>Caretta caretta</i>		LLS437/LLS438	76.3	77.3	82.9	78.7	59.9	57.0	66.9	North net
4/18/2016	<i>Chelonia mydas</i>		LLS439/LLS440	40.5	41.5	43.0	36.8	34.0	34.4	8.0	North net
4/18/2016	<i>Caretta caretta</i>		LLS441/LLS442	75.0	75.9	82.5	74.8	57.6	57.0	58.9	North net
4/19/2016	<i>Caretta caretta</i>		LLS443/LLS444	54.1	55.3	59.0	59.0	49.3	44.7	27.2	North net
4/19/2016	<i>Chelonia mydas</i>	3	LLS445	42.4	42.5	45.1	40.9	34.7	34.7	114.0	South net
4/20/2016	<i>Caretta caretta</i>	4	LLS446/LLS447	96.9	96.9	103.5	72.6	95.0	74.6	141.7	South net
4/20/2016	<i>Caretta caretta</i>		LLS448/LLS449	78.5	79.9	83.5	84.2	64.7	63.9	79.7	North net
4/20/2016	<i>Caretta caretta</i>		LLS450/LLS476	70.5	71.8	77.1	76.8	62.6	56.9	53.9	North net
4/21/2016	<i>Caretta caretta</i>		LLS477/LLS478	58.3	60.2	65.4	63.6	52.7	48.4	35.0	South net
4/21/2016	<i>Caretta caretta</i>		LLS479/LLS480	65.4	67.2	71.1	69.0	54.0	45.5	39.5	North net
4/21/2016	<i>Caretta caretta</i>		LLS481/LLS482	65.3	66.8	69.5	65.2	55.0	47.0	44.4	North net
4/21/2016	<i>Caretta caretta</i>	5	STW160421-01	71.7	73.0	78.8	73.5	60.0	57.1	56.4	South net
4/22/2016	<i>Caretta caretta</i>		LLS483/LLS484	66.5	67.5	73.1	68.6	55.8	52.0	46.9	North net

Date	Species	Note	Tag #'s	SMCL (cm)	SSCL (cm)	CSCL (cm)	CMCW (cm)	SMCW (cm)	SMPL (cm)	Weight (kg)	Method
4/22/2016	<i>Caretta caretta</i>		LLS485/LLS486	63.0	64.3	68.7	68.0	55.2	49.9	40.6	North net
4/22/2016	<i>Caretta caretta</i>	6	LLS487/LLS488	94.5	96.5	102.3	92.4	73.1	72.5		North net
4/22/2016	<i>Caretta caretta</i>		LLS489/LLS490	56.4	57.3	63.0	58.2	48.8	46.8		North net
4/22/2016	<i>Caretta caretta</i>	7	STW160422-01	59.9	61.1	67.0	61.4	51.6	47.3		South net
4/23/2016	<i>Caretta caretta</i>	8	LLS483/LLS484	66.3	67.5	73.7	68.5	55.7	52.8	46.9	South net
4/23/2016	<i>Chelonia mydas</i>	9	LLS491/LLS492	57.3	58.0	61.6	54.0	44.8	46.3	21.7	South net
4/24/2016	<i>Caretta caretta</i>		LLS493/LLS494	63.9	66.7	69.2	66.5	56.8	50.3	39.0	North net
4/26/2016	<i>Chelonia mydas</i>	10	4A5A473052	46.0	46.3	50.4	42.5	36.2	39.4	13.9	South net
4/26/2016	<i>Caretta caretta</i>	11	EEP329	81.8	83.2	90.6	84.7	65.2	63.0	78.6	North net
4/26/2016	<i>Chelonia mydas</i>	12	LLP389	59.4	59.4	63.4	60.2	47.4	47.8	26.7	South net
4/26/2016	<i>Caretta caretta</i>		LLS495/LLS496	62.2	63.7	68.0	65.4	54.7	49.9	41.5	North net
4/27/2016	<i>Caretta caretta</i>		LLS497/LLS498	73.2	74.2	79.6	76.4	59.6	55.5	54.2	North net
4/27/2016	<i>Caretta caretta</i>		LLS499/LLS500	60.6	62.6	68.0	64.9	54.8	49.9	38.5	South net
4/28/2016	<i>Caretta caretta</i>		LLS501/LLS502	63.0	64.3	68.7	65.7	51.6	49.7	33.4	North net
4/29/2016	<i>Chelonia mydas</i>	13	LLS316/LLS317	50.6	50.8	54.1	48.9	40.0	43.0	17.0	South net
4/29/2016	<i>Caretta caretta</i>	14	LLS503/LLS504	95.2	96.0	100.8	96.4	73.3	73.6	136.6	South net
4/29/2016	<i>Caretta caretta</i>	15	LLS505/LLS506	88.2	91.4	99.0	86.2	62.7	68.4	109.1	North net

## NOTES

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1. 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, 4/3/13, 1/6/14, 7/26/14, 11/23/14, 3/10/15, 1/17/16 and 4/16/16. PAPILLOMAS (Balazs Tumor Score = 3 {heavy}, Total Tumor Score = 8). Large papilloma tumor where tag scar would have been in the left front flipper. Bone exposed on carapace and head (under left eye) from moderate fresh scrapes. Good body condition & active.
2. RECAPTURE. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 8/5/14 and 4/17/16.
3. 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, 6/15/13, 3/8/15, 3/28/15 and 4/19/16. New flipper tag inserted.
4. Adult female. Tail length = 280 mm.
5. REHAB (NON-CAUSAL). Stranding# STW160421-01. Large subadult loggerhead with recent shark bite wounds (laceration in right rear flipper exposing bone). Shark rakings across carapace and right side of plastron. Impact wound/ break in anterior carapace (possible boat strike injury). Inwater Research Group (IRG) biologists transported the turtle partway to rehab at the Gumbo Limbo Nature Center, Boca Raton.
6. Adult female. Tail length = 230 mm. Partially healed wounds above and below left eye (not from entrapment). Large 13cm long partially healed wound in dorsal surface of neck (possible mating wound). Weight not taken due to broken davit.
7. REHAB (NON-CAUSAL). Stranding# STW160422-01. Underweight and lethargic subadult loggerhead with a heavy epibiont load (Debilitated Loggerhead Turtle Syndrome). Sores along the ventral marginals. Bleeding 2.5cm wound in right anterior plastron. Small scar and a healing 5cm cut in right axilla. IRG biologists facilitated transfer to rehab facility by transporting the animal partway to SeaWorld Orlando.
8. RECAPTURE. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 4/22/16 and 4/23/16.
9. RECAPTURE. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 2/17/10, 10/18/13, 11/24/13, 4/9/15 and 4/23/16. New Inconel tags inserted.
10. RECAPTURE. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 12/4/08, 8/18/09, 9/15/09, 6/20/12, 10/3/12, 12/6/12, 3/22/13, 7/11/13, 9/3/14, 12/29/14, 1/14/16 and 4/26/16. PAPILLOMAS (Balazs Tumor Score = 1 {light}, Total Tumor Score = 1). Papilloma at tag application site in left front flipper (no tags flipper tags applied).
11. RECAPTURE. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 10/29/13 and 4/26/16.
12. RECAPTURE. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 3/1/04, 11/3/04, 11/21/04, 7/8/05, 8/12/05, 9/13/05, 4/24/06, 9/29/06, 11/19/06, 12/4/06, 12/9/07, 2/10/08, 4/3/08, 9/14/08, 11/26/08, 12/18/08, 12/14/09, 1/11/10, 9/21/10, 7/25/11, 10/13/11, 7/12/12, 12/16/12, 8/19/13, 2/12/14, 1/4/16 and 4/26/16. Moderate fresh scrapes to 2nd & 3rd vertebral scutes (bone exposed). Turtle missing 50% of left rear flipper and 35% of right rear flipper (both healed).
13. 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, 4/11/13, 7/29/13, 1/3/14, 7/7/14, 3/11/15, 3/1/16 and 4/29/16.
14. Adult female. Tail length = 270 mm.
15. Adult female. Tail length = 264 mm.

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	
	Apr-16	Year to Date	Apr-16	Year to Date	Apr-16	Year to Date	Apr-16	Year to Date	Apr-16	Year to Date	Apr-16	Year to Date
<b>Captures</b>	<b>39</b>	137	<b>12</b>	103	<b>0</b>	1	<b>0</b>	1	<b>1</b>	6	<b>52</b>	248
<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>	8	<b>0</b>	0	<b>0</b>	0	<b>0</b>	0	<b>0</b>	8
<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>2</b>	9	<b>0</b>	5	<b>0</b>	1	<b>0</b>	0	<b>0</b>	2	<b>2</b>	17
<b>Fresh Scrapes</b>	Apr-16	Year to Date	Apr-16	Year to Date	Apr-16	Year to Date	Apr-16	Year to Date	Apr-16	Year to Date	Apr-16	Year to Date
<b>None</b>	<b>6</b>	18	<b>1</b>	20	<b>0</b>	0	<b>0</b>	0	<b>0</b>	0	<b>7</b>	38
<b>Minor</b>	<b>32</b>	110	<b>8</b>	69	<b>0</b>	1	<b>0</b>	0	<b>1</b>	6	<b>41</b>	186
<b>Moderate</b>	<b>1</b>	9	<b>3</b>	14	<b>0</b>	0	<b>0</b>	1	<b>0</b>	0	<b>4</b>	24
<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>2.6%</b>	6.6%	<b>25.0%</b>	13.6%	<b>N/A</b>	0.0%	<b>N/A</b>	100.0%	<b>0.0%</b>	0.0%	<b>7.7%</b>	9.7%

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	137	4,788
	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	0	2
Green	Total Captures	394	286	428	267	101	299	161	444	217	127	197	134	181	103	3,339
	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	1	32
	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	0	66
Total Captures per Year		944	914	917	692	330	725	424	751	521	362	503	414	465	248	8,210

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

\*\* 2016 is a partial year.