

NRR-PMDAPem Resource

From: Steve Weege <steveweege@gmail.com>
Sent: Tuesday, June 06, 2017 1:52 PM
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; Eaton, Kristin; Jonathan Gorham; Terri.Taylor@fpl.com; William.Nurnberger@fpl.com; Audra Livergood - NOAA Federal
Subject: [External_Sender] May 2017 FPL Marine Turtle Removal Monthly Report
Attachments: May 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

May 2017

Dear Meghan,

Attached, please find the monthly summary of marine turtle removals for May 2017. This month, we captured thirty-three (33) *Caretta caretta* and seven (7) *Chelonia mydas* in the intake canal of the St. Lucie power plant on Hutchinson Island. No sea turtles were sent for rehabilitation and there was only one mortality recorded during the month of May. 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 non-causal mortality this month. On the morning of May 19th, a moderately decomposed juvenile green turtle was recovered from atop the permanent 5-inch barrier net. The turtle was bloated and too decomposed to necropsy. No tail length could be taken due to state of decomposition. The turtle was buried above the dune after consultation with FWC. This animal was presumed to have been entrained postmortem and was thereby considered non-causal.

Net inspections were also performed during the month of May. On the 30th, 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 primary 5-inch barrier net was cleaned of all debris and algae during the inspection period. The 8-inch net has begun to degrade and is scheduled for replacement. No holes were found in any of the barrier nets during the quarterly net inspections.

Throughout the month, the permanent 5-inch barrier net experienced moderate loads of algae and only negligible amounts of jellyfish. 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 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

Steve Weege

Sr. Environmental Specialist

Inwater Research Group, Inc.

4160 NE Hyline Dr.

Jensen Beach, FL 34957

sweege@inwater.org

(772) 349-7252

Hearing Identifier: NRR_PMDA
Email Number: 3561

Mail Envelope Properties (CAJrYmh9og4+LVWYOVm8KT1g7ELFRBBgPaMyeQKz44iyhhd4yhg)

Subject: [External_Sender] May 2017 FPL Marine Turtle Removal Monthly Report
Sent Date: 6/6/2017 1:52:04 PM
Received Date: 6/6/2017 1:52:13 PM
From: Steve Weege

Created By: steveweege@gmail.com

Recipients:

"Ed Hollowell" <Ed.Hollowell@fpl.com>
Tracking Status: None
"Jodie Gless" <Jodie_Gless@fpl.com>
Tracking Status: None
"John Jones" <John.Jones@fpl.com>
Tracking Status: None
"Ken Frehafer" <Ken_Frehafer@fpl.com>
Tracking Status: None
"Marine Turtle Permit" <MTP@myfwc.com>
Tracking Status: None
"Michael Bresette" <mbresette@inwater.org>
Tracking Status: None
"EndangeredSpecies Resource" <EndangeredSpecies.Resource@nrc.gov>
Tracking Status: None
"SCO@dep.state.fl.us" <SCO@dep.state.fl.us>
Tracking Status: None
"Vince Munne" <Vince.Munne@fpl.com>
Tracking Status: None
"Cody Mott" <cmott@inwater.org>
Tracking Status: None
"Jeff Guertin" <jguertin@gmail.com>
Tracking Status: None
"Ryan Welsh" <rwelsh@inwater.org>
Tracking Status: None
"debbie.spring@noaa.gov" <debbie.spring@noaa.gov>
Tracking Status: None
"Eaton, Kristin" <Kristin.Eaton@fpl.com>
Tracking Status: None
"Jonathan Gorham" <jgorham@inwater.org>
Tracking Status: None
"Terri.Taylor@fpl.com" <Terri.Taylor@fpl.com>
Tracking Status: None
"William.Nurnberger@fpl.com" <William.Nurnberger@fpl.com>
Tracking Status: None
"Audra Livergood - NOAA Federal" <audra.livergood@noaa.gov>
Tracking Status: None
"Meghan Koperski" <Meghan.Koperski@myfwc.com>
Tracking Status: None

Post Office: mail.gmail.com

Files	Size	Date & Time
MESSAGE	2843	6/6/2017 1:52:13 PM
May 2017 Marine Turtle Captures.pdf		80265
Monthly Report Notes 2017.pdf	58993	
FPL St. Lucie Capture Summary 2017.pdf		80548
Power Plant Causal Turtles.pdf	89842	

Options

Priority:	Standard
Return Notification:	No
Reply Requested:	No
Sensitivity:	Normal
Expiration Date:	
Recipients Received:	

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

Date	Species	Note	Tag #'s	SMCL (cm)	SSCL (cm)	CSCL (cm)	CMCW (cm)	SMCW (cm)	SMPL (cm)	Weight (kg)	Method
5/6/2017	<i>Caretta caretta</i>		MMA808/MMA809	70.6	72.3	75.8	72.9	61.0	54.7	55.7	North net
5/10/2017	<i>Caretta caretta</i>		MMA810/MMA811	68.8	71.2	73.8	67.0	56.6	55.5	45.2	Hand capture
5/11/2017	<i>Caretta caretta</i>	1	MMA575/MMA576	64.0	64.7	69.5	67.2	53.2	49.3	38.7	Hand capture
5/11/2017	<i>Caretta caretta</i>		MMA812/MMA813	66.9	68.3	71.0	70.3	55.4	53.8	44.4	Hand capture
5/14/2017	<i>Caretta caretta</i>	2	MMA814/MMA815	96.4	96.8	102.4	93.6	71.8	73.2	124.9	South net
5/18/2017	<i>Caretta caretta</i>		MMA816/MMA817	76.9	78.0	82.6	76.2	57.9	60.0	70.2	North net
5/19/2017	<i>Caretta caretta</i>		MMA818/MMA819	79.3	81.0	86.7	78.8	62.9	61.5	82.9	South net
5/19/2017	<i>Caretta caretta</i>	3	MMA820/MMA821	93.1	96.1	100.6	88.7	66.4	63.8	106.6	North net
5/19/2017	<i>Caretta caretta</i>		MMA822/MMA823	65.3	66.9	73.4	72.0	53.0	50.2	38.5	North net
5/19/2017	<i>Chelonia mydas</i>	4	RCW170519-01	26.8	27.0	28.8	24.5	21.1	21.9	2.3	Barrier net
5/20/2017	<i>Caretta caretta</i>	5	MMA824/MMA825	70.2	71.0	76.0	68.7	55.7	53.1	46.1	South net
5/22/2017	<i>Caretta caretta</i>		MMA826/MMA827	82.4	84.2	88.7	77.6	63.4	62.1	82.9	South net
5/22/2017	<i>Caretta caretta</i>	6	MMA828/MMA829	95.0	95.7	102.1	89.9	68.9	72.9	123.3	North net
5/23/2017	<i>Caretta caretta</i>	7	MMA830	103.1	104.1	109.7	101.4	80.0	77.0	167.1	North net
5/23/2017	<i>Caretta caretta</i>	8	MMA831/MMA832	88.0	89.9	97.5	92.2	70.6	68.9	114.1	North net

Date	Species	Note	Tag #'s	SMCL (cm)	SSCL (cm)	CSCL (cm)	CMCW (cm)	SMCW (cm)	SMPL (cm)	Weight (kg)	Method
5/24/2017	<i>Chelonia mydas</i>	9	LLP424/MMA835	44.6	44.7	45.6	41.5	35.7	36.3	11.7	North net
5/24/2017	<i>Caretta caretta</i>		MMA833/MMA834	61.7	63.1	67.2	64.8	53.3	49.8	34.0	North net
5/25/2017	<i>Caretta caretta</i>	10	MMA836/MMA837	85.8	87.5	91.3	85.0	67.4	66.7	101.9	Hand capture
5/27/2017	<i>Caretta caretta</i>		MMA838/MMA839	79.0	81.6	86.0	79.6	62.3	61.5	77.5	North net
5/27/2017	<i>Caretta caretta</i>	11	MMA840/MMA841	91.4	91.9	97.4	92.2	71.8	73.0	117.5	South net
5/27/2017	<i>Chelonia mydas</i>		MMA842/MMA843	63.3	64.0	66.5	60.6	50.8	53.1	32.6	South net
5/28/2017	<i>Caretta caretta</i>	12	MMA844/MMA845	91.5	92.5	97.6	92.4	73.7	71.5	131.3	North net
5/28/2017	<i>Caretta caretta</i>		MMA846/MMA847	58.4	59.7	62.9	62.6	52.2	46.6	30.6	North net
5/28/2017	<i>Caretta caretta</i>		MMA848/MMA849	80.5	83.2	86.9	84.4	65.7	66.5	95.3	North net
5/30/2017	<i>Caretta caretta</i>	13	MMA850/MMA851	92.2	93.4	98.8	89.4	71.6	72.2	109.6	North net
5/30/2017	<i>Caretta caretta</i>	14	MMA852/MMA853	86.3	86.7	92.8	84.1	67.7	65.2	97.5	Hand capture
5/30/2017	<i>Chelonia mydas</i>	15	MMA854/MMA855	91.4	91.8	95.0	92.9	74.3	73.4	103.1	Hand capture
5/30/2017	<i>Caretta caretta</i>		MMA856/MMA857	66.9	67.6	72.0	66.4	53.6	51.6	41.0	Hand capture
5/30/2017	<i>Caretta caretta</i>	16	MMA858/MMA859	83.0	85.1	90.0	82.5	65.7	62.8	83.1	Hand capture
5/30/2017	<i>Caretta caretta</i>		MMA860/MMA861	62.4	64.1	67.4	66.5	54.1	49.7	38.1	Hand capture
5/30/2017	<i>Caretta caretta</i>	17	MMA862/MMA863	89.7	91.0	96.3	84.9	67.8	68.0	106.6	Hand capture
5/30/2017	<i>Caretta caretta</i>	18	MMA864/MMA865	72.8	74.0	77.5	73.7	58.7	55.3	52.5	Hand capture
5/30/2017	<i>Chelonia mydas</i>	19	MMA866/MMA867	54.5	54.7	57.8	53.5	43.7	44.5	23.1	Hand capture
5/30/2017	<i>Caretta caretta</i>	20	MMA868/MMA869	89.3	88.5	94.4	88.1	69.1	67.0	103.5	North net
5/30/2017	<i>Caretta caretta</i>	21	MMA870/MMA871	91.7	92.8	98.0	84.4	67.0	68.8	111.1	North net

Date	Species	Note	Tag #'s	SMCL (cm)	SSCL (cm)	CSCl (cm)	CMCW (cm)	SMCW (cm)	SMPL (cm)	Weight (kg)	Method
5/31/2017	<i>Chelonia mydas</i>	22	MMA872/MMA873	86.8	87.5	95.2	85.9	68.7	72.8	100.1	Hand capture
5/31/2017	<i>Caretta caretta</i>	23	MMA874/MMA875	96.1	96.4	102.0	89.4	71.3	72.8	133.4	Hand capture
5/31/2017	<i>Chelonia mydas</i>	24	MMA876/MMA877	88.9	89.1	93.6	86.6	70.9	70.9	84.3	Hand capture
5/31/2017	<i>Caretta caretta</i>		MMA878/MMA879	72.5	74.1	77.5	74.8	59.8	57.5	50.8	Hand capture
5/31/2017	<i>Caretta caretta</i>		MMA880/MMA881	67.6	68.0	72.2	72.0	56.9	52.1	42.8	Hand capture

NOTES

1. RECAPTURE. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 9/9/16 and 5/11/17.
2. Adult female. Tail length = 273 mm.
3. Adult male. Tail length = 410 mm.
4. DEAD (NON-CAUSAL MORTALITY). Stranding# RCW170519-01. Moderately decomposed juvenile green turtle found on the permanent 5-inch barrier net in the morning. Very bloated. Too decomposed to necropsy. No tail length could be taken due to state of decomposition. The turtle was buried above the dune after consultation with FWC.
5. RECAPTURE. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 2/27/09, 3/21/10 and 5/20/17. New Inconel tags inserted on this capture event.
6. Adult female. Tail length = 249 mm.
7. Adult female. Tail length = 275 mm. Necrotic tissue in process of healing on both front flippers, left eye and neck region. Turtle missing 20% from terminal end of right front flipper. Long gash in dorsal side of right front flipper with exposed bone. Consulted with FWC and Dr. Nancy Mettee, DVM prior to releasing this nesting female. Condition deemed fair.
8. Adult female. Tail length = 140 mm. Healing 42 cm break in posterior carapace.
9. RECAPTURE. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 9/26/10, 1/17/16 and 5/24/17.
10. Adult female. Tail length = 226 mm. Large mating scar on left side of neck.
11. Adult female. Tail length = 210 mm.
12. Adult female. Tail length = 200 mm.
13. Adult female. Tail length = 259 mm. Turtle missing 25% from terminal end of right front flipper (healed).
14. Adult female. Tail length = 219 mm.
15. Adult male. Tail length = 355 mm.
16. Adult female. Tail length = 224 mm.
17. Adult female. Tail length = 270 mm.
18. RECAPTURE. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 8/18/07, 8/21/07, 8/24/07, 9/2/07, 9/10/07, 10/25/07, 12/17/07, 1/25/08, 4/6/08, 4/30/08, 7/13/08, 8/24/08, 9/13/08, 10/6/08, 10/18/08, 4/17/09, 6/17/09, 8/13/09, 10/27/09, 6/11/10, 9/15/10, 9/15/11, 10/21/11, 11/30/11, 7/7/12, 3/20/13, 11/4/15, 12/27/16, 1/6/17 and 5/30/17.
19. RECAPTURE. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 8/5/08, 5/10/11, 6/13/11, 7/25/11, 7/7/12, 2/5/13, 3/20/13, 5/7/14, 1/3/15, 4/16/15, 6/15/15 and 5/30/17.
20. Adult female. Tail length = 224 mm.
21. Adult female. Tail length = 258 mm.
22. Adult female. Tail length = 179 mm.
23. Adult female. Tail length = 300 mm. Partially healed shark rakings on plastron and all four flippers. Extensive flipper damage from shark attack and partially healed shark rakings across entire width of head.
24. Adult male. Tail length = 390 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	
	May-17	Year to Date	May-17	Year to Date	May-17	Year to Date	May-17	Year to Date	May-17	Year to Date	May-17	Year to Date
Captures	33	80	7	21	0	0	0	0	0	0	40	101
Causal Mortalities	0	0	0	0	0	0	0	0	0	0	0	0
Non-Causal Mortalities	0	0	1	2	0	0	0	0	0	0	1	2
Causal Injuries	0	0	0	0	0	0	0	0	0	0	0	0
Sent to Rehab	0	6	0	0	0	0	0	0	0	0	0	6
Fresh Scrapes	May-17	Year to Date	May-17	Year to Date	May-17	Year to Date	May-17	Year to Date	May-17	Year to Date	May-17	Year to Date
None	1	11	2	6	0	0	0	0	0	0	3	17
Minor	32	67	4	14	0	0	0	0	0	0	36	81
Moderate	0	2	1	1	0	0	0	0	0	0	1	3
Severe	0	0	0	0	0	0	0	0	0	0	0	0
Percent with Mod/Sev Scrapes	0.0%	2.5%	14.3%	4.8%	N/A	N/A	N/A	N/A	N/A	N/A	2.5%	3.0%

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	80	4,509
	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	0	1	3
Green	Total Captures	286	428	267	101	299	161	444	217	127	197	134	181	159	21	3,022
	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	101	7,605

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

**2017 is a partial year.