

NRR-DMPSPEm Resource

From: Steve Weege <steveeweeg@gmail.com>
Sent: Tuesday, January 09, 2018 7:19 AM
To: Meghan Koperski
Cc: Ed Hollowell; Jodie Gless; 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; William.Nurnberger@fpl.com; Audra Livergood - NOAA Federal
Subject: [External_Sender] December 2017 FPL Marine Turtle Removal Monthly Report
Attachments: December 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 December 2017

Dear Meghan,

Attached, please find the monthly summary of marine turtle removals for December 2017. This month, we captured 16 *Caretta caretta*, 14 *Chelonia mydas*, one *Eretmochelys imbricata*, and one *Lepidochelys kempii* in the intake canal of the St. Lucie power plant on Hutchinson Island. There was one sea turtle mortality and three turtles were sent for rehabilitation. 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 December 7th, an adult female loggerhead was found floating on the barrier net in the morning. The turtle was moderately decomposed (extremely bloated and scutes sloughing off). No obvious signs of trauma. The turtle was buried after consultation with FWC.

Three turtles were sent to rehabilitation centers for non-causal injuries this month. On December 7th, an emaciated and lethargic subadult loggerhead was found floating on the 5-inch barrier net in the morning. It had a heavy epibiont load and was apparently suffering from Debilitated Loggerhead Turtle Syndrome. FWC personnel transported the turtle to the Loggerhead Marinelife Center (LMC) in Juno Beach for rehabilitation. On December 18th, an adult female hawksbill was found languishing at the surface of the intake canal in the morning (dip-netted). It was emaciated and lethargic with a heavy epibiont load. Ecological Associates, Inc. personnel picked up the turtle and transported it to LMC for rehab. On December 26th, an adult female loggerhead was recovered from the permanent 5-inch barrier net in the morning. The turtle was emaciated and lethargic with an old 1 cm puncture wound in the soft tissue between its right rear flipper and plastron. After coordinating with FWC, Inwater Research Group (IRG) biologists transported the turtle to LMC for rehab. All three strandings were classified as non-causal.

The permanent 5-inch barrier net encountered light-to-moderate loads of jellyfish during the month of December. Underwater Engineering Services continued to inspect the A-1-A barrier net weekly and removed accumulated algae and debris as needed. Furthermore, IRG inspected the entire length of the intake canal (up to the security barrier) at least twice daily for turtles that may have made it past the primary or secondary barrier nets. The area between the 5-inch and 8-inch barrier nets was also monitored periodically with a small john boat. No turtles were encountered west of the primary barrier net in December.

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

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Hearing Identifier: NRR_DMPS
Email Number: 125

Mail Envelope Properties (CAJrYmh9TG+wU5SBJomPHiCJsDo1Fk3nXCkdWe_2-O=b9y-KBhA)

Subject: [External_Sender] December 2017 FPL Marine Turtle Removal Monthly Report
Sent Date: 1/9/2018 7:19:07 AM
Received Date: 1/9/2018 7:19:17 AM
From: Steve Weege

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Files	Size	Date & Time
MESSAGE	3659	1/9/2018 7:19:17 AM
December 2017 Marine Turtle Captures.pdf		77770
Monthly Report Notes 2017.pdf	58150	

FPL St. Lucie Capture Summary 2017.pdf
Power Plant Causal Turtles.pdf

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MARINE TURTLE REMOVALS ST. LUCIE PLANT INTAKE CANAL DECEMBER 2017

Date	Species	Note	Tag #'s	SMCL (cm)	SSCL (cm)	CSCL (cm)	CMCW (cm)	SMCW (cm)	SMPL (cm)	Weight (kg)	Method
12/1/2017	<i>Lepidochelys kempii</i>		MMX130/MMX131	57.4	58.2	61.1	63.5	54.0	44.9	24.9	North net
12/3/2017	<i>Chelonia mydas</i>	1	LLP337/LLP338	58.5	58.6	62.4	55.1	45.5	50.3	28.8	South net
12/4/2017	<i>Chelonia mydas</i>	2	MMX032/MMX033	55.8	56.0	59.6	56.3	43.8	45.4	22.9	North net
12/4/2017	<i>Chelonia mydas</i>	3	MMX132/MMX133	58.7	59.9	63.9	56.2	47.1	48.7	26.6	South net
12/5/2017	<i>Caretta caretta</i>		MMX134/MMX136	68.8	70.0	73.8	69.3	56.7	54.4	49.7	South net
12/5/2017	<i>Chelonia mydas</i>		MMX137	28.8	29.0	30.2	26.1	24.0	23.8	3.0	South net
12/6/2017	<i>Chelonia mydas</i>		MMX138/MMX139	34.9	35.2	37.0	33.5	28.6	28.8	4.8	Dip net
12/7/2017	<i>Caretta caretta</i>	4	JRG171207-01	73.1	73.7	78.3	74.7	57.5	56.0	49.1	Barrier net
12/7/2017	<i>Caretta caretta</i>	5	JRG171207-02	87.6	90.5	97.2	87.0	69.4	65.1	87.4	Barrier net
12/7/2017	<i>Caretta caretta</i>		MMX140/MMX141	66.4	68.4	74.0	73.2	59.2	55.6	50.9	North net
12/7/2017	<i>Chelonia mydas</i>		MMX142/MMX143	69.9	70.2	74.6	70.7	58.9	58.3	47.6	South net
12/7/2017	<i>Chelonia mydas</i>		MMX144/MMX145	59.5	59.6	63.5	65.2	44.8	47.2	26.5	North net
12/8/2017	<i>Caretta caretta</i>		MMX146/MMX147	58.8	60.2	64.3	64.2	52.3	47.3	32.1	South net
12/12/2017	<i>Chelonia mydas</i>		MMX148/MMX149	31.0	31.4	32.7	28.1	25.7	25.8	3.2	South net
12/13/2017	<i>Chelonia mydas</i>	6	MMX062/MMX063	63.2	64.1	68.2	58.9	49.9	52.3	30.7	South net

Date	Species	Note	Tag #'s	SMCL (cm)	SSCL (cm)	CSCL (cm)	CMCW (cm)	SMCW (cm)	SMPL (cm)	Weight (kg)	Method
12/16/2017	<i>Chelonia mydas</i>		MMX150	26.3	26.7	27.7	24.4	21.7	21.9	2.3	Dip net
12/18/2017	<i>Eretmochelys imbricata</i>	7	STW171218-01	71.2	72.7	79.2	71.4	56.2	54.4	37.7	Dip net
12/19/2017	<i>Caretta caretta</i>	8	MMA707/MMX154	70.4	71.5	75.5	72.8	58.5	54.6	48.4	South net
12/19/2017	<i>Chelonia mydas</i>		MMX151	28.0	28.2	29.0	26.9	25.1	23.5	3.2	South net
12/19/2017	<i>Caretta caretta</i>		MMX152/MMX153	56.8	57.4	63.1	62.5	52.5	45.0	31.5	South net
12/20/2017	<i>Caretta caretta</i>		MMX155/MMX156	62.6	63.5	68.1	68.0	55.3	49.6	39.9	South net
12/21/2017	<i>Caretta caretta</i>		MMX157/MMX158	68.0	69.5	75.6	72.1	61.3	54.6	48.2	South net
12/22/2017	<i>Caretta caretta</i>		MMX159/MMX160	69.2	70.5	75.9	72.1	58.2	53.0	43.6	South net
12/26/2017	<i>Caretta caretta</i>	9	STW171226-01	88.7	89.4	96.7	87.2	68.9	66.8	81.2	Barrier net
12/27/2017	<i>Caretta caretta</i>	10	MMA860/MMA861	63.3	64.6	69.1	67.9	53.0	49.4	40.2	North net
12/27/2017	<i>Caretta caretta</i>		MMX161/MMX162	64.9	65.9	69.5	68.2	55.4	52.3	40.2	South net
12/27/2017	<i>Caretta caretta</i>		MMX163/MMX164	58.2	59.4	63.8	62.7	50.4	47.0	30.9	South net
12/28/2017	<i>Caretta caretta</i>		MMX165/MMX166	64.9	65.5	69.8	70.5	55.7	55.2	41.6	North net
12/29/2017	<i>Chelonia mydas</i>		MMX167/MMX168	45.4	45.9	49.2	43.6	39.7	36.8	11.9	North net
12/30/2017	<i>Chelonia mydas</i>	11	MMX169/MMX170	55.4	55.9	61.5	53.4	43.6	43.5	21.4	North net
12/31/2017	<i>Caretta caretta</i>	12	MMJ008/MMJ009	57.1	58.1	63.5	59.3	50.0	45.3	31.4	North net
12/31/2017	<i>Chelonia mydas</i>	13	MMX171/MMX172	44.5	45.0	49.3	42.3	35.5	36.9	11.1	North net

NOTES

1. RECAPTURE. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 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, 12/1/16, 10/4/17, and 12/3/17.
2. RECAPTURE. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 4/2/12, 10/28/12, 3/17/15, 12/12/16, 10/21/17, and 12/4/17.
3. PAPILLOMAS (Balazs Tumor Score = 1 {light}, Total Tumor Score = 3). Deep moderate fresh scrape in nuchal scute.
4. REHAB (NON-CAUSAL). Stranding# JRG171207-01. Emaciated and lethargic subadult loggerhead found floating on the 5-inch barrier net in the morning. Heavy epibiont load. Turtle apparently suffering from Debilitated Loggerhead Turtle Syndrome. Florida Fish and Wildlife Conservation Commission (FWC) personnel transported the turtle to the Loggerhead Marinelife Center (LMC) in Juno Beach for rehab.
5. DEAD (NON-CAUSAL MORTALITY). Stranding# JRG171207-02. Adult female loggerhead found floating on the barrier net in the morning. Turtle was moderately decomposed (extremely bloated and scutes sloughing off). No obvious signs of trauma. The turtle was buried after consultation with FWC. Adult female. Tail length = 249 mm.
6. RECAPTURE. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 10/17/08, 11/26/11, 10/8/13, 10/25/17, and 12/13/17.
7. REHAB (NON-CAUSAL). Stranding# STW171218-01. Adult female hawksbill found languishing at the surface of the intake canal in the morning (dip-netted). Emaciated & lethargic with heavy epibiont load. Ecological Associates, Inc. personnel picked up and transported to LMC for rehab. Adult female. Tail length = 140 mm.
8. RECAPTURE. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 12/15/16 and 12/19/17. This was an excluder device testing turtle from last year.
9. REHAB (NON-CAUSAL). Stranding# STW171226-01. Adult female loggerhead recovered from the permanent 5-inch barrier net in the morning. Turtle was emaciated and lethargic. Old 1 cm puncture wound in soft tissue between right rear flipper and plastron. Inwater Research Group biologists transported the turtle to LMC for rehab. Adult female. Tail length = 197 mm.
10. RECAPTURE. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 5/30/17, 11/5/17, and 12/27/17.
11. PAPILLOMAS (Balazs Tumor Score = 2 {moderate}, Total Tumor Score = 27).
12. STRANGE TAG (PIT & Inconel Tags). PIT tag in left shoulder. Original tagging information pending (Archie Carr Center for Sea Turtle Research). Old healed shark bite in right posterior carapace.
13. PAPILLOMAS (Balazs Tumor Score = 2 {moderate}, Total Tumor Score = 42).

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	
	Dec-17	Year to Date	Dec-17	Year to Date	Dec-17	Year to Date	Dec-17	Year to Date	Dec-17	Year to Date	Dec-17	Year to Date
Captures	16	250	14	182	1	2	0	0	1	1	32	435
Causal Mortalities	0	1	0	3	0	0	0	0	0	0	0	4
Non-Causal Mortalities	1	2	0	2	0	0	0	0	0	0	1	4
Causal Injuries	0	0	0	1	0	0	0	0	0	0	0	1
Sent to Rehab	2	15	0	3	1	1	0	0	0	0	3	19
Fresh Scrapes		Year to Date	Dec-17	Year to Date	Dec-17	Year to Date	Dec-17	Year to Date	Dec-17	Year to Date	Dec-17	Year to Date
None	5	33	1	26	0	0	0	0	0	0	6	59
Minor	11	207	12	143	1	2	0	0	1	1	25	353
Moderate	0	10	1	13	0	0	0	0	0	0	1	23
Severe	0	0	0	0	0	0	0	0	0	0	0	0
Percent with Mod/Sev Scrapes	0.0%	4.0%	7.1%	7.1%	0.0%	0.0%	N/A	N/A	0.0%	0.0%	3.1%	5.3%

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	250	4,679
	Injuries	0	1	*3	0	1	1	0	0	1	1	0	0	0	0	8
	Mortalities	1	0	*21	0	0	0	1	0	0	0	0	0	1	1	25
Green	Total Captures	286	428	267	101	299	161	444	217	127	197	134	181	159	182	3,183
	Injuries	0	3	7	0	2	2	1	0	0	0	0	0	0	1	16
	Mortalities	1	1	1	1	2	0	3	1	2	2	0	4	0	3	21
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	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
Hawksbill	Total Captures	2	2	2	1	4	2	3	2	1	2	3	1	4	2	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
Injury & Mortality Yearly Totals		2	5	32	1	5	3	5	1	3	3	0	4	1	5	70
Total Captures per Year		914	917	692	330	725	424	751	521	362	503	414	465	486	435	7,939

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