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Sent: Thursday, August 13, 2020 11:05 AM
To: Koperski, Meghan
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Subject: [External_Sender] July 2020 FPL Marine Turtle Removal Monthly Report
Attachments: July 2020 Marine Turtle Captures.pdf; Monthly Report Notes 2020.pdf; FPL St. Lucie Capture Summary 2020.pdf

Mrs. Meghan Koperski
Tequesta Field Laboratory
19100 SE Federal Highway
Tequesta, FL 33469

Subject: Marine Turtle Removal Monthly Summary July 2020

Dear Meghan,

Attached, please find the monthly summary of marine turtle removals for July 2020. This month we captured 18 *Caretta caretta* and one *Chelonia mydas* in the intake canal of the St. Lucie power plant on Hutchinson Island. Two turtles were sent for rehabilitation (non-causal) and there were no mortalities during the month of July. As with all sea turtle strandings at the Saint Lucie Plant, the Florida Fish and Wildlife Conservation Commission (FWC) was consulted and stranding forms were filed with the state through the Sea Turtle Stranding and Salvage Network.

Two turtles were sent to rehabilitation facilities for non-causal injuries this month. On July 10th, an underweight subadult loggerhead with a heavy epibiont coverage was hand captured in the intake canal (Debilitated Loggerhead Turtle Syndrome). It was picked up and transported by the FWC Stranding Coordinator to the Loggerhead Marinelife Center (LMC) in Juno Beach. On July 24th, another underweight and lethargic subadult loggerhead was found on the 5-inch barrier net. It also had a heavy epibiont load and a recent injury to the posterior carapace measuring 2 cm x 10 cm (exposed bone but not open into the body cavity). The injury was not from entrapment. Inwater Research Group biologists transported this turtle to LMC for rehab.

Both turtles were sent to rehab for injuries or illness that were unrelated to the power plant and were therefore classified as non-causal. The primary 5-inch barrier net encountered moderate-to-severe amounts of algae this past month. IRG biologists performed around-the-clock monitoring of the intake canal and barrier net system either as warranted by sufficiently high debris intrusion levels or whenever directed by FPL oversight personnel. Furthermore, Underwater Engineering Services, Inc. inspected the primary barrier net and removed accumulated algae and debris as needed. Moreover, the primary 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 2020. In addition, this

spreadsheet tracks fresh scrapes incurred on captured turtles for the current month, as well as the entire year.

Please feel free to contact me with any questions.

Sincerely,

Steve

Steve Weege

Sr. Environmental Specialist

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MESSAGE	2866	8/13/2020 11:05:30 AM

July 2020 Marine Turtle Captures.pdf	256609
Monthly Report Notes 2020.pdf	187795
FPL St. Lucie Capture Summary 2020.pdf	252347

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MARINE TURTLE REMOVALS ST. LUCIE PLANT INTAKE CANAL JULY 2020

Date	Species	Note	Tag #'s	SMCL (cm)	SSCL (cm)	CSCL (cm)	CMCW (cm)	SMCW (cm)	SMPL (cm)	Weight (kg)	Method
7/3/2020	<i>Caretta caretta</i>	1	KKT276/KKT277	77.9	80.0	85.0	77.1	60.6	55.7	66.2	North net
7/5/2020	<i>Caretta caretta</i>	2	KKT278/KKT279	86.4	89.1	94.9	84.5	65.0	65.8	91.3	South net
7/10/2020	<i>Caretta caretta</i>	3	422E742232	78.2	78.4	80.8	77.9	59.7	55.3	68.4	Hand capture
7/10/2020	<i>Caretta caretta</i>	4	KKL0751/KKL0753	65.3	66.1	71.0	68.3	56.5	51.7	41.1	Hand capture
7/10/2020	<i>Caretta caretta</i>	5	KKT280/KKT281	84.6	86.6	91.5	81.4	61.4	63.3	87.1	South net
7/13/2020	<i>Caretta caretta</i>		KKT282/KKT283	76.1	77.5	83.0	76.1	60.1	60.0	65.6	South net
7/13/2020	<i>Caretta caretta</i>	6	KKT284/KKT285	89.7	90.0	95.0	89.0	69.9	71.7	105.1	South net
7/16/2020	<i>Caretta caretta</i>	7	KKT286/KKT287	86.4	89.6	96.3	89.0	71.5	64.4	105.9	North net
7/18/2020	<i>Caretta caretta</i>		KKT288/KKT289	75.6	77.7	82.7	78.7	60.0	56.7	62.5	Hand capture
7/18/2020	<i>Caretta caretta</i>		KKT290/KKT291	63.1	64.6	68.0	67.8	52.8	50.2	39.7	Hand capture
7/18/2020	<i>Caretta caretta</i>	8	KKT292/KKT293	95.1	95.9	101.6	89.3	70.0	85.9	104.0	Hand capture
7/18/2020	<i>Caretta caretta</i>	9	KKT294/KKT295	86.7	89.3	98.5	88.4	68.6	66.7	100.4	Hand capture
7/18/2020	<i>Caretta caretta</i>	10	KKT296/KKT297	89.3	90.2	96.7	91.2	71.6	70.7	100.7	Hand capture
7/20/2020	<i>Caretta caretta</i>	11	KKT298/KKT299	91.7	92.4	99.0	93.5	68.4	71.7	117.6	South net
7/24/2020	<i>Caretta caretta</i>	12	KKL0680/KKL0681	61.2	62.3	67.5	63.1	53.2	46.6	32.5	Barrier net

Date	Species	Note	Tag #'s	SMCL (cm)	SSCL (cm)	CSCl (cm)	CMCW (cm)	SMCW (cm)	SMPL (cm)	Weight (kg)	Method
7/26/2020	<i>Caretta caretta</i>		KKT300/KKT301	57.6	58.8	62.9	60.8	47.8	46.4	29.0	Hand capture
7/26/2020	<i>Caretta caretta</i>		KKT302/KKT303	48.1	49.3	54.0	51.4	43.4	39.9	19.2	Hand capture
7/27/2020	<i>Chelonia mydas</i>	13	KKT128/KKT129	40.7	41.0	43.5	36.5	31.4	34.0	9.8	South net
7/29/2020	<i>Caretta caretta</i>		KKT304/KKT305	79.7	80.8	87.8	80.3	62.2	56.7	65.8	Hand capture

NOTES

1. RECAPTURE. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 10/4/08, 12/19/08, 8/18/09, 5/15/10, and 7/3/20. New Inconel tags inserted on this capture event.
2. Adult female loggerhead. Tail length = 203 mm.
3. 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, 4/17/13, 9/2/14, 10/7/17, 11/7/17, 1/16/18, 2/12/19, and 7/10/20. Multiple tag scars on both front flippers; no new tags inserted. Adult male loggerhead. Tail length = 420 mm. Sex determination based on tail length.
4. REHAB (NON-CAUSAL). Stranding# STW200710-01. Underweight subadult loggerhead with heavy epibiont coverage - Debilitated Loggerhead Turtle Syndrome. Carbuncle on dorsal side of head/neck. Picked up and transported by the FWC Stranding Coordinator to Loggerhead Marinelife Center (LMC) in Juno Beach.
5. Adult female loggerhead. Tail length = 195 mm. Deep moderate fresh scrape around nares.
6. Adult female loggerhead. Tail length = 205 mm.
7. Adult female loggerhead. Tail length = 214 mm.
8. Adult female loggerhead. Tail length = 198 mm. Mating scars on ventral side of neck.
9. Adult female loggerhead. Tail length = 228 mm. Slight depression in anterior plastron from either a congenital deformity or an old healed injury.
10. Adult female loggerhead. Tail length = 216 mm. Mating scar on ventral side of neck.
11. Adult female loggerhead. Tail length = 253 mm.
12. REHAB (NON-CAUSAL). Stranding #CRM200724-01. RECAPTURE. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 8/23/19, 12/15/19, 1/19/20. Underweight & lethargic subadult loggerhead found on the 5-inch barrier net. Heavy epibiont load. Recent injury to marginals of the left posterior carapace measuring 2 cm x 10 cm (exposed bone but not open into the body cavity). Injury was not from entrapment. IRG biologists transported the turtle to LMC for rehab.
13. RECAPTURE. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 4/19/18, 5/24/18, 11/5/18, 3/1/20, 7/27/20.

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	
	Jul-20	Year to Date	Jul-20	Year to Date	Jul-20	Year to Date	Jul-20	Year to Date	Jul-20	Year to Date	Jul-20	Year to Date
Captures	18	115	1	53	0	0	0	0	0	5	19	173
Causal Mortalities	0	0	0	1	0	0	0	0	0	0	0	1
Noncausal Mortalities	0	1	0	2	0	0	0	0	0	0	0	3
Causal Injuries	0	0	0	0	0	0	0	0	0	0	0	0
Sent to rehab	2	6	0	1	0	0	0	0	0	2	2	9
Fresh Scrapes	Jul	Year to Date	Jul	Year to Date	Jul	Year to Date	Jul	Year to Date	Jul	Year to Date	Jul	Year to Date
None	2	12	0	10	0	0	0	0	0	2	2	24
Minor	14	97	1	43	0	0	0	0	0	3	15	143
Moderate	2	6	0	0	0	0	0	0	0	0	2	6
Severe	0	0	0	0	0	0	0	0	0	0	0	0
Percent with mod/sev scrapes	11.1%	5.2%	0.0%	0.0%	N/A	N/A	N/A	N/A	N/A	0.0%	10.5%	3.5%