

From: Steve Weege <sweege@inwater.org>
Sent: Tuesday, April 13, 2021 6:48 AM
To: Koperski, Meghan
Cc: Ed Hollowell; Jodie_Gless@fpl.com; Ken_Frehafer@fpl.com; Marine Turtle Permits; Michael Bresette; EndangeredSpecies Resource; SCO@dep.state.fl.us; Vince Munne; Cody Mott; Jeff Guertin; Ryan Welsh; Eaton, Kristin; Jonathon Gorham; William.Nurnberger@fpl.com; audra.livergood@noaa.gov; Sciscente, Richard; Seth.Duston@fpl.com
Subject: [External_Sender] March 2021 FPL Marine Turtle Removal Monthly Report
Attachments: March 2021 Marine Turtle Captures.pdf; Monthly Report Notes 2021.pdf; FPL St. Lucie Capture Summary 2021.pdf

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

Subject: Marine Turtle Removal Monthly Summary March 2021

Dear Meghan,

Attached, please find the monthly summary of marine turtle removals for March 2021. This month we captured 32 *Caretta caretta*, seven *Chelonia mydas*, and one *Eretmochelys imbricata* in the intake canal of the St. Lucie power plant on Hutchinson Island. Seven sea turtles were sent for rehabilitation (six non-causal, one causal) and there were no mortalities during the month of March. 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.

Five loggerheads and one hawksbill were sent to rehab facilities for non-causal injuries or illnesses this month. One subadult and three adult male loggerheads were sent for rehabilitation for chronic debilitation. Another adult male loggerhead and an adult female hawksbill were sent for the treatment of shark attack injuries (sustained prior to entrainment into the intake canal). All turtles were sent to either the Loggerhead Marinelifelife Center in Juno Beach or the Gumbo Limbo Nature Center in Boca Raton for rehabilitation. Because these turtles had injuries or illnesses that were unrelated to the power plant, they were classified as non-causal.

There was one causal injury this month. On March 24th, a juvenile green turtle was recovered from the intake wells with injuries to the carapace, likely sustained from the mechanical cleaning rakes. There were two breaks in the posterior carapace and the turtle was nutritionally compromised (severely underweight). Immediately after workup, the turtle was taken to the staff veterinarians at the Loggerhead Marinelifelife Center for examination and initial treatment. It was later transferred to the rehab facility at the Gumbo Limbo Nature Center where it is responding well to treatment.

The primary 5-inch barrier net encountered light amounts of algae and moderate-to-severe quantities of jellyfish throughout the month. In response, 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. Following the recovery of a juvenile green turtle in the

intake wells, Underwater Engineering Services Inc. divers inspected the primary barrier and the net was found to be in good working order. This turtle was particularly small, even in comparison to others that have been found in the intake wells before, and therefore was likely able to pass through the mesh of the barrier net relatively unimpeded.

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 2021. 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
Inwater Research Group, Inc.
4160 NE Hyline Dr.
Jensen Beach, FL 34957
sweege@inwater.org
(772) 349-7252

Hearing Identifier: NRR_DRMA
Email Number: 1120

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Sent Date: 4/13/2021 6:48:21 AM
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From: Steve Weege

Created By: sweege@inwater.org

Recipients:

"Ed Hollowell" <Ed.Hollowell@fpl.com>
Tracking Status: None
"Jodie_Gless@fpl.com" <Jodie_Gless@fpl.com>
Tracking Status: None
"Ken_Frehafer@fpl.com" <Ken_Frehafer@fpl.com>
Tracking Status: None
"Marine Turtle Permits" <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
"Eaton, Kristin" <Kristin.Eaton@fpl.com>
Tracking Status: None
"Jonathon Gorham" <jgorham@inwater.org>
Tracking Status: None
"William.Nurnberger@fpl.com" <William.Nurnberger@fpl.com>
Tracking Status: None
"audra.livergood@noaa.gov" <audra.livergood@noaa.gov>
Tracking Status: None
"Sciscente, Richard" <Richard.Sciscente@fpl.com>
Tracking Status: None
"Seth.Duston@fpl.com" <Seth.Duston@fpl.com>
Tracking Status: None
"Koperski, Meghan" <Meghan.Koperski@myfwc.com>
Tracking Status: None

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Files	Size	Date & Time
MESSAGE	3493	4/13/2021 6:48:40 AM

March 2021 Marine Turtle Captures.pdf	265318
Monthly Report Notes 2021.pdf	190454
FPL St. Lucie Capture Summary 2021.pdf	253633

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**MARINE TURTLE REMOVALS
ST. LUCIE PLANT INTAKE CANAL
MARCH 2021**

Date	Species	Note	Tag #'s	SMCL (cm)	SSCL (cm)	CSCL (cm)	CMCW (cm)	SMCW (cm)	SMPL (cm)	Weight (kg)	Method
3/2/2021	<i>Caretta caretta</i>	1	KKY164/KKY165	91.7	93.1	100.1	89.1	73.3	71.4	123.7	North net
3/3/2021	<i>Caretta caretta</i>	2	KKL0680/KKL0681	64.1	64.8	68.0	63.4	54.1	48.2	35.9	North net
3/4/2021	<i>Eretmochelys imbricata</i>	3	SAC210304-001	79.0	82.3	85.9	73.0	55.8	62.3	66.7	North net
3/6/2021	<i>Caretta caretta</i>		KKY166/KKY167	55.2	56.2	69.6	68.6	55.6	52.6	39.8	North net
3/8/2021	<i>Caretta caretta</i>		KKY168/KKY169	64.0	65.4	68.3	66.5	56.0	51.4	42.7	North net
3/9/2021	<i>Caretta caretta</i>		KKY170/KKY171	62.8	64.0	66.5	63.9	53.9	49.4	37.4	North net
3/9/2021	<i>Caretta caretta</i>		KKY172/KKY173	69.5	70.5	73.0	67.6	54.5	54.8	43.4	North net
3/9/2021	<i>Chelonia mydas</i>		KKY174/KKY175	49.0	49.4	52.0	46.1	40.7	42.2	14.0	South net
3/9/2021	<i>Caretta caretta</i>	4	KKY176/KKY177	98.5	99.9	104.5	96.9	76.2	73.4	165.0	Barrier net
3/9/2021	<i>Caretta caretta</i>		KKY178/KKY179	58.2	59.2	62.8	61.6	49.6	44.9	28.0	North net
3/10/2021	<i>Caretta caretta</i>	5	CMB210310-001	96.0	97.3	102.0	94.0	71.0	67.3		Barrier net
3/10/2021	<i>Caretta caretta</i>		KKY180/KKY181	62.3	63.5	67.4	66.0	52.7	45.7	31.7	North net
3/10/2021	<i>Caretta caretta</i>		KKY182/KKY183	64.8	66.4	70.0	65.9	54.5	51.4	42.2	North net
3/11/2021	<i>Caretta caretta</i>	6	CMB210311-001	101.1	102.5	106.4	97.4	75.8	73.5	145.8	North net
3/11/2021	<i>Caretta caretta</i>	7	KKG381/KKG382	91.9	93.9	98.7	86.2	69.5	66.0	113.4	North net

Date	Species	Note	Tag #'s	SMCL (cm)	SSCL (cm)	CSCL (cm)	CMCW (cm)	SMCW (cm)	SMPL (cm)	Weight (kg)	Method
3/11/2021	<i>Caretta caretta</i>		KKY184/KKY185	70.4	71.8	73.5	70.0	58.1	54.2	53.2	North net
3/11/2021	<i>Caretta caretta</i>		KKY186/KKY187	74.0	75.2	82.5	76.0	58.8	56.5	61.0	North net
3/11/2021	<i>Caretta caretta</i>		KKY188/KKY189	59.9	60.9	65.2	61.8	50.1	47.5	31.6	North net
3/12/2021	<i>Caretta caretta</i>		KKY192/KKY193	61.9	62.9	66.9	62.4	50.9	48.8	37.1	North net
3/13/2021	<i>Caretta caretta</i>	8	ANS210313-001	87.9	88.4	93.2	82.6	66.3	62.0	82.2	North net
3/13/2021	<i>Caretta caretta</i>		KKY190/KKY191	69.8	70.9	75.2	73.1	56.3	55.2	51.3	North net
3/13/2021	<i>Caretta caretta</i>		KKY194/KKY195	70.3	71.8	75.3	73.1	58.9	56.8	53.8	North net
3/14/2021	<i>Chelonia mydas</i>	9	KKL0776/KKY196	47.4	47.6	50.1	42.3	36.0	38.5	13.4	North net
3/14/2021	<i>Caretta caretta</i>	10	KKY197/KKY198	85.8	88.5	91.3	84.0	67.0	68.0	90.8	North net
3/14/2021	<i>Caretta caretta</i>		KKY199/KKY200	66.5	68.0	71.0	69.7	56.4	52.9	47.7	South net
3/14/2021	<i>Caretta caretta</i>		KKY201/KKY202	65.8	66.4	70.4	71.0	54.3	52.7	40.5	North net
3/20/2021	<i>Caretta caretta</i>		KKY203/KKY204	67.2	68.6	72.6	70.3	54.6	52.7	42.5	South net
3/21/2021	<i>Caretta caretta</i>	11	CMB210321-001	70.5	72.4	77.2	75.1	58.2	55.5	39.6	Barrier net
3/23/2021	<i>Chelonia mydas</i>		KKY205	45.9	46.2	47.9	39.6	34.8	37.3	10.8	South net
3/24/2021	<i>Chelonia mydas</i>	12	ANS210324-001	25.9	26.3	27.5	22.4	20.4	20.9	1.5	Intake well
3/24/2021	<i>Caretta caretta</i>		KKY206/KKY207	69.6	71.0	74.9	71.1	59.2	53.7	50.0	North net
3/24/2021	<i>Chelonia mydas</i>		KKY208/KKY209	64.9	65.3	68.2	63.3	52.5	55.8	36.6	North net
3/25/2021	<i>Caretta caretta</i>		KKY210/KKY211	73.5	74.8	78.3	71.9	59.6	58.9	59.8	North net
3/25/2021	<i>Caretta caretta</i>		KKY212/KKY213	62.5	64.3	67.5	65.4	55.8	50.3	36.9	South net
3/25/2021	<i>Caretta caretta</i>		KKY214/KKY215	69.6	70.6	73.0	71.4	59.1	53.8	48.3	South net

Date	Species	Note	Tag #'s	SMCL (cm)	SSCL (cm)	CSCl (cm)	CMCW (cm)	SMCW (cm)	SMPL (cm)	Weight (kg)	Method
3/25/2021	<i>Caretta caretta</i>		KKY216/KKY217	65.3	66.4	70.3	69.6	55.5	53.0	42.9	North net
3/26/2021	<i>Chelonia mydas</i>	13	KKY048/KKY049	36.8	37.0	38.7	32.5	25.7	29.2	6.0	South net
3/26/2021	<i>Chelonia mydas</i>		KKY218/KKY219	33.5	34.1	35.5	31.0	27.8	28.2	4.6	South net
3/27/2021	<i>Caretta caretta</i>		KKY220/KKY221	63.4	64.9	68.1	64.6	52.8	50.1	36.5	South net
3/28/2021	<i>Caretta caretta</i>	14	KKL0516	65.0	66.8	70.4	66.7	53.6	50.2	34.4	South net

NOTES

1. Adult female loggerhead. Tail length = 215 mm.
2. RECAPTURE. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 8/23/19, 12/15/19, 1/19/20, 7/24/20, and 3/3/21. Old healed shark bite in left posterior carapace.
3. REHAB (NON-CAUSAL). Stranding# SAC210304-001. Adult female hawksbill (tail length = 182 mm) caught in the tangle nets with extensive shark attack wounds. Bone exposed in left rear flipper from deep gash and shark rakings in all flippers and inguinal area. Body condition was good as injuries were sustained relatively recently. Loggerhead Marinelifelife Center (LMC) biologists transported this turtle for rehab.
4. REHAB (NON-CAUSAL). Stranding# TBC210309-001. Lethargic adult male loggerhead (tail length = 536 mm) captured at the barrier net. Tagged prior to rehab determination. Turtle had a soft plastron and, despite not being underweight, the heartbeat was visible. Turtle wouldn't crawl to the water when attempted to release. Picked up by LMC staff for triage and overnight observation. Turtle later succumbed to pneumonia.
5. REHAB (NON-CAUSAL). Stranding# CMB210310-001. Severely emaciated and lethargic adult male loggerhead (tail length = 500 mm) recovered from the primary 5-inch barrier net. The Florida Fish and Wildlife Conservation Commission (FWC) sea turtle stranding coordinator picked up and transported the turtle to the Gumbo Limbo Nature Center (GLNC) in Boca Raton for rehab. Weight estimated at 85 kg.
6. REHAB (NON-CAUSAL). Stranding# CMB210311-001. Adult male loggerhead (tail length = 370 mm) captured in the tangle nets with extensive shark attack injuries. Turtle missing 75% of right front flipper with broken humerus bone exposed. Turtle also missing 40% of right rear flipper from recent shark bite. There was some caseous material present indicating that the shark attack injuries were already beginning to heal and therefore occurred prior to entrapment. The FWC Stranding Coordinator transported this turtle to GLNC for rehab.
7. Adult male loggerhead. Tail length = 460 mm. RECAPTURE. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 4/20/19, 5/7/19, and 3/11/21.
8. REHAB (NON-CAUSAL). Stranding# ANS210313-001. Underweight and lethargic adult male loggerhead (tail length = 465 mm) recovered from the tangle nets. FWC transported this turtle to LMC for rehab.
9. RECAPTURE. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 9/21/19 and 3/14/21.
10. Adult female loggerhead. Tail length = 175 mm.
11. REHAB (NON-CAUSAL). Stranding# CMB210321-001. Emaciated and lethargic subadult loggerhead recovered from atop the permanent 5-inch barrier net in the morning. Turtle missing 75% of left front flipper (healed). Heavy epibiont coverage and carbuncle on dorsal side of neck. Ecological Associates biologists transported this animal to GLNC for rehab.
12. REHAB (CAUSAL). Stranding# ANS210324-001. Juvenile green turtle recovered from the intake wells with injuries to the carapace, likely sustained from the mechanical cleaning rakes; there were two 1-2 cm breaks in the posterior carapace. The turtle also had a healing 3 cm cut in its right axilla and was severely underweight. Immediately after workup, the turtle was taken to the staff veterinarians at LMC for examination and initial treatment. After it was stabilized, the turtle was transferred to GLNC for continued treatment/rehabilitation.
13. RECAPTURE. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 9/20/19, 11/9/20, and 3/26/21.
14. RECAPTURE. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 5/5/19, 8/5/19, 5/19/20, 8/17/20, and 3/28/21. Old healed irregular-shaped injury in left side of carapace (12cm x 3cm piece missing). Healed wound in right anterior carapace (7cm x 8cm), possibly from an old boat strike.

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	
	Mar-21	Year to Date	Mar-21	Year to Date	Mar-21	Year to Date	Mar-21	Year to Date	Mar-21	Year to Date	Mar-21	Year to Date
Captures	32	50	7	27	1	1	0	0	0	3	40	81
Causal Mortalities	0	0	0	0	0	0	0	0	0	0	0	0
Non-causal Mortalities	0	0	0	0	0	0	0	0	0	0	0	0
Causal Injuries	0	0	1	1	0	0	0	0	0	0	1	1
Sent to rehab	5	9	1	1	1	1	0	0	0	0	7	11
Fresh Scrapes	Mar-	Year to Date	Mar-	Year to Date	Mar-	Year to Date	Mar-	Year to Date	Mar-	Year to Date	Mar-	Year to Date
None	6	6	1	5	1	1	0	0	0	1	8	13
Minor	25	43	6	22	0	0	0	0	0	2	31	67
Moderate	1	1	0	0	0	0	0	0	0	0	1	1
Severe	0	0	0	0	0	0	0	0	0	0	0	0
Percent with mod/sev scrapes	3.1%	2.0%	0.0%	0.0%	0.0%	0.0%	N/A	N/A	N/A	0.0%	2.5%	1.2%