From:	Steve Weege <sweege@inwater.org></sweege@inwater.org>
Sent:	Tuesday, June 14, 2022 7:03 AM
То:	Koperski, Meghan
Cc:	Eldridge, Jodie; Marine Turtle Permits; Michael Bresette; EndangeredSpecies
	Resource; SCO@dep.state.fl.us; Vince Munne; Eaton, Kristin; William
	Nurnberger; Audra Livergood - NOAA Federal; Sciscente, Richard;
	Seth.Duston@fpl.com; Cody Mott; Jguertin
Subject:	[External_Sender] May 2022 FPL Marine Turtle Removal Monthly Report
Attachments:	May 2022 Marine Tutle Captures.pdf; FPL St. Lucie Capture Summary
	2022.pdf; Monthly Report Notes 2022.pdf

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

Subject: Marine Turtle Removal Monthly Summary May 2022

Dear Meghan,

Attached, please find the monthly summary of marine turtle removals for May 2022. This month we captured 39 *Caretta caretta* and three *Chelonia mydas* in the intake canal of the St. Lucie power plant on Hutchinson Island. Two sea turtles were sent for rehabilitation (both non-causal) and there were no mortalities in May. As with all sea turtle strandings at the St. 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 sea turtles were sent to rehab for non-causal injuries this month. On May 14th, a juvenile loggerhead was dip-netted with heavy monofilament line tangled around the base of one of its front flippers. This turtle was taken to the Gumbo Limbo Nature Center in Boca Raton for rehabilitation. On May 22nd, an adult female loggerhead was captured in the tangle nets with an open wound from a shark attack. The left front flipper was missing and the head of the humerus was projecting outward from the healing terminus. The humeral bone was covered in shark teeth marks. There was also an old boat strike injury to the posterior carapace consisting of two completely healed 20 cm gashes. Loggerhead Marinelife Center biologists picked up and transported this turtle to Zoo Miami for rehabilitation. Because these injuries/illnesses were unrelated to the power plant, both were classified as non-causal strandings.

The primary 5-inch barrier net encountered severe amounts of algae this past month. IRG 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 (UESI) divers inspected and cleaned the 5-inch barrier net as needed. Altogether, 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 2022. 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 <u>sweege@inwater.org</u> (772) 349-7252

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Subject: Sent Date:	[External_Sender] May 2022 FPL Marine Turtle Removal Monthly Report 6/14/2022 7:02:58 AM
Received Date:	6/14/2022 7:03:29 AM
From:	Steve Weege

Created By: sweege@inwater.org

Recipients:

"Eldridge, Jodie" <Jodie.Eldridge@nexteraenergy.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** "Eaton, Kristin" <Kristin.Eaton@fpl.com> Tracking Status: None "William Nurnberger" < William.Nurnberger@fpl.com> Tracking Status: None "Audra Livergood - NOAA Federal" <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** "Cody Mott" <cmott@inwater.org> Tracking Status: None "Jguertin" <jguertin@inwater.org> Tracking Status: None "Koperski, Meghan" < Meghan.Koperski@myfwc.com> Tracking Status: None

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Files	Size	Date &	Time
MESSAGE	2868	6/14/20)22 7:03:29 AM
May 2022 Marine Tutle Capture	s.pdf	262530	
FPL St. Lucie Capture Summary	/ 2022.pdf	2	53080
Monthly Report Notes 2022.pdf		191594	

Options	
Priority:	Normal
Return Notification:	No
Reply Requested:	No

Sensitivity: Expiration Date:

Normal

MARINE TURTLE REMOVALS ST. LUCIE PLANT INTAKE CANAL MAY 2022

Date	Species I	Note	Tag #'s	SMCL (cm)	SSCL (cm)	CSCL (cm)	CMCW (cm)	SMCW (cm)	SMPL (cm)	Weight (kg)	Method
5/3/2022	Caretta caretta		FFE605/FFE606	68.6	69.4	71.4	71.1	57.9	55.0	46.1	North net
5/6/2022	Caretta caretta		FFE607/FFE608	84.6	84.9	88.9	78.8	61.8	62.8	85.5	Hand capture
5/6/2022	Caretta caretta	1	FFE609/FFE610	94.7	97.8	102.9	92.4	73.1	71.9	130.4	Hand capture
5/8/2022	Caretta caretta	2	FFE611/FFE612	93.9	94.7	99.2	87.4	67.8	69.0	113.0	North net
5/9/2022	Caretta caretta		FFE613/FFE614	74.2	74.8	76.9	72.5	58.8	56.2	54.2	North net
5/13/2022	Caretta caretta		FFE615/FFE616	48.1	49.3	52.5	49.6	42.6	38.9	17.8	North net
5/14/2022	Caretta caretta		FFE617/FFE618	57.4	58.8	60.5	58.1	49.5	44.0	26.0	North net
5/14/2022	Caretta caretta	3	FFE619/FFE620	91.2	91.7	94.9	86.1	69.5	70.0	120.3	North net
5/14/2022	Caretta caretta	4	FFE621/FFE622	86.5	87.3	91.7	83.7	64.6	66.9	98.9	North net
5/14/2022	Caretta caretta	5	SRH220514-001	56.6	58.8	62.1	61.1	50.3	46.6	32.9	Dip net
5/15/2022	Caretta caretta	6	FFE623/FFE626	95.4	96.6	99.6	83.8	67.1	66.1	103.8	South net
5/16/2022	Caretta caretta	7	FFE627/FFE628	103.7	105.1	109.0	96.9	76.6	81.8	171.8	North net
5/18/2022	Caretta caretta	8	FFE629/FFE630	92.8	94.2	96.3	88.0	68.6	65.9	107.5	South net
5/18/2022	Caretta caretta	9	FFE632/FFE631	90.5	91.3	94.8	86.4	73.5	65.3	110.7	North net
5/19/2022	Caretta caretta	10	FFE633/FFE634	93.8	94.8	97.3	87.2	71.3	71.6	123.0	North net
5/20/2022	Chelonia mydas	5	FFE635/FFE636	42.5	43.0	44.5	38.1	34.0	35.3	10.4	South net
5/20/2022	Caretta caretta		FFE637/FFE638	82.9	83.6	85.1	75.9	62.1	63.0	80.3	North net

Date	Species	Note	Tag #'s	SMCL (cm)	SSCL (cm)	CSCL (cm)	CMCW (cm)	SMCW (cm)	SMPL (cm)	Weight (kg)	Method
5/22/2022	Caretta caretta	11	FFE639/FFE640	94.9	95.7	96.8	89.3	71.4	74.6	128.4	Hand capture
5/22/2022	Caretta caretta	12	FFE641	91.9	93.4	96.3	87.7	67.8	65.3	103.3	Hand capture
5/22/2022	Caretta caretta	13	FFE642/FFE643	96.5	98.2	102.3	91.8	75.8	76.3	134.8	Hand capture
5/22/2022	Caretta caretta	14	FFE644/FFE645	87.6	88.0	92.0	80.7	64.5	67.0	90.4	Hand capture
5/22/2022	Caretta caretta		FFE646/FFE647	66.3	68.0	69.9	68.1	57.8	52.5	41.4	Hand capture
5/22/2022	Chelonia myda:	5	FFE648/FFE649	45.2	45.7	47.2	40.4	35.3	37.3	12.3	Hand capture
5/22/2022	Caretta caretta	15	STW220522-001	98.5	103.6	107.0	99.7	78.0	81.0	176.4	North net
5/23/2022	Chelonia myda:	5 16	982000410603762	58.7	59.0	62.5	55.6	46.9	46.3	242.0	Hand capture
5/23/2022	Caretta caretta	17	FFE439/FFE440	68.1	69.7	71.3	65.7	55.9	52.1	45.0	Hand capture
5/23/2022	Caretta caretta	18	FFE650/FFE651	83.2	85.2	87.0	85.5	70.8	68.3	108.9	Hand capture
5/23/2022	Caretta caretta	19	FFE652/FFE653	86.6	89.2	91.3	85.1	69.0	70.4	105.4	North net
5/23/2022	Caretta caretta		FFE654/FFE655	65.8	66.9	70.6	68.3	54.0	51.5	41.3	Hand capture
5/23/2022	Caretta caretta	20	FFE656/FFE657	93.7	94.3	96.1	86.9	66.9	67.7	112.1	Hand capture
5/23/2022	Caretta caretta		FFE658/FFE659	80.9	81.3	87.1	79.4	59.5	61.2	74.3	Hand capture
5/26/2022	Caretta caretta	21	FFE660/FFE661	88.8	90.1	96.3	83.6	67.5	69.6	107.8	North net
5/26/2022	Caretta caretta	22	KKY366/FFE662	82.3	84.3	86.1	76.5	62.7	59.4	78.6	North net
5/27/2022	Caretta caretta	23	FFE663/FFE664	84.6	86.0	91.4	81.2	66.9	64.5	99.3	North net
5/27/2022	Caretta caretta	24	FFE665/FFE666	91.6	93.7	97.8	86.5	70.3	71.6	127.2	Hand capture
5/27/2022	Caretta caretta	25	FFE667/FFE668	91.6	93.1	94.6	82.9	66.3	64.7	90.5	Hand capture
5/27/2022	Caretta caretta		FFE669/FFE670	80.5	81.2	82.5	79.9	60.9	62.0	79.0	Hand capture

Date	Species I	Note	Tag #'s	SMCL (cm)	SSCL (cm)	CSCL (cm)	CMCW (cm)	SMCW (cm)	SMPL (cm)	Weight (kg)	Method
5/27/2022	Caretta caretta		FFE671/FFE672	74.5	74.7	77.7	73.0	57.3	58.2	58.1	Hand capture
5/27/2022	Caretta caretta		FFE673/FFE674	80.3	81.1	84.8	78.5	68.1	62.1	83.0	Hand capture
5/31/2022	Caretta caretta	26	FFE675/FFE676	86.7	89.4	93.3	82.5	66.7	67.9	100.8	Hand capture
5/31/2022	Caretta caretta		FFE677/FFE678	64.6	65.7	70.7	69.5	57.0	51.2	36.1	Hand capture
5/31/2022	Caretta caretta	27	FFE679/FFE680	85.5	86.5	89.7	83.0	65.1	65.0	90.2	North net

	Loggerheads		Green turtles (Chelonia		Hawksbills (Eretmochelys		Leathe		Kemp's (Lepido	s ridley		
	(Caretta	caretta)	(Chelonia mydas)		imbricata)		(Dermochelys coriacea)		kem	-	Overall	Totals
			туи	us)	imoricaia)		20110	<i>leu)</i>	Kem	<i>pu)</i>	Overail	TUTAIS
		Year to		Year to		Year to		Year to		Year to		Year to
	May-22	Date	May-22	Date	May-22	Date	May-22	Date	May-22	Date	May-22	Date
Captures	39	69	3	39	0	0	0	1	0	1	42	110
Causal												
Mortalities	0	0	0	0	0	0	0	0	0	1	0	1
Non-causal												
Mortalities	0	0	0	0	0	0	0	0	0	0	0	0
Causal												
Injuries	0	0	0	0	0	0	0	0	0	0	0	0
Sent to												
rehab	2	3	0	1	0	0	0	0	0	0	2	5
Fresh		Year to		Year to		Year to		Year to		Year to		Year to
Scrapes	May-22	Date	May-22	Date	May-22	Date	May-22	Date	May-22	Date	May-22	Date
None	3	10	1	6	0	0	0	0	0	0	4	16
Minor	33	54	2	33	0	0	0	0	0	1	35	88
Moderate	3	5	0	0	0	0	0	1	0	0	3	6
Severe	0	0	0	0	0	0	0	0	0	0	0	0
Percent												
with												
mod/sev												
scrapes	7.7%	7.2%	0.0%	0.0%	N/A	N/A	N/A	100.0%	N/A	0.0%	7.1%	5.5%

- 1. Adult male loggerhead. Tail length = 435 mm.
- Adult male loggerhead. Tail length = 465 mm. Healing hooking wound in left side of jaw. Two healed gashes in right side of carapace (15cm and 17cm).
- 3. Adult female loggerhead. Tail length = 240 mm.
- 4. Adult female loggerhead. Tail length = 201 mm.
- 5. REHAB (NON-CAUSAL). Stranding# SRH220514-001. Juvenile loggerhead dip-netted with heavy monofilament line tangled around base of right front flipper. Turtle also missing 8 cm x 10 cm piece of right posterior carapace (healed, includes part of last vertebral and costal scutes). Turtle was taken to the Gumbo Limbo Nature Center in Boca Raton for rehabilitation.
- 6. Adult male loggerhead. Tail length = 490 mm.
- RECAPTURE. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 6/28/05 and 5/16/22. Adult female loggerhead. Tail length = 275 mm. New Inconel tags inserted on this capture event.
- 8. Adult male loggerhead. Tail length = 415 mm.
- 9. Adult male loggerhead. Tail length = 465 mm.
- Adult female loggerhead. Tail length = 265 mm. Turtle missing 50% of its right front flipper (healed). Scar tissue in left axilla and left front flipper (probable mating wounds).
- 11. Adult female loggerhead. Tail length = 240 mm. Mating scar in ventral side of neck.
- 12. Adult male loggerhead. Tail length = 470 mm. Granulated tissue in front flippers, possible mating wounds/ bites. Only one Inconel tag inserted in LFF due to flipper damage. Healed broken bone in left shoulder.
- 13. Adult female loggerhead. Tail length = 245 mm. Turtle missing 50% of left front flipper and 25% of right front flipper. Broken bone in proximal RFF just distal to the humeral articulation (scar tissue over wound).
- 14. Adult female loggerhead. Tail length = 203 mm. Mating scars in ventral side of neck. Moderate fresh scrape in nares.
- 15. REHAB (NON-CAUSAL). Stranding# STW220522-001. Adult female loggerhead captured in the tangle nets with an open wound from a shark attack (tail length = 226 mm). Left front flipper missing with entire humerus projecting outward from the healing terminus. The humeral bone is covered in shark teeth marks. The tissue is granulated and not bleeding, but the skin has not yet covered the wound. There is an old boat strike injury to the posterior carapace consisting of two completely healed 20 cm gashes. Loggerhead Marinelife Center biologists picked up & transported this turtle to Zoo Miami for rehabilitation.
- RECAPTURE. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 12/6/18, 3/20/19, 12/2/19, 10/11/20, and 5/23/22. PAPILLOMAS (Balazs Tumor Score = 2 {moderate}, Total Tumor Score = 7). Papilloma tumors in old tag sites. No new Inconel tags inserted.
- 17. RECAPTURE. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 10/19/21 and 5/23/22. PAPILLOMAS (Balazs Tumor Score = 1 {light}, Total Tumor Score = 3).
- 18. Adult female loggerhead. Tail length = 230 mm. Scar tissue in right shoulder.
- Adult female loggerhead. Tail length = 280 mm. Large healed notch in distal trailing edge of right front flipper (5% missing, healed). Broken phalange proximal to flipper damage.
- 20. Adult male loggerhead. Tail length = 528 mm.
- 21. Adult female loggerhead. Tail length = 225 mm.
- 22. STRANGE TAG (Originally tagged in Johnson Keys near Big Pine Key, The Florida Keys by Inwater Research Group on 7/18/21). Adult male loggerhead. Tail length = 451 mm. Sex determination based on tail length. One new Inconel tag #FFE662 applied on this capture event.
- 23. Adult female loggerhead. Tail length = 197 mm. Healing mating wounds on left side of head and jaw.
- 24. Adult female loggerhead. Tail length = 220 mm. Healed longitudinal 44 cm crack through vertebral scutes in anterior carapace (probable old boat strike injury). Mating scar in ventral side of neck.
- 25. Adult male loggerhead. Tail length = 437 mm.
- Adult female loggerhead. Tail length = 198 mm. Shark rakings in anterior plastron and marginals. Turtle missing 20% from terminal end of right rear flipper (healed).
- 27. Adult female loggerhead. Tail length = 205 mm. Crack in first vertebral scute from an old boat strike injury.

- 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