

From: agarstin@inwater.org
Sent: Saturday, June 15, 2024 10:54 AM
To: 'Koperski, Meghan'
Cc: Sean.Fitzgerald@nexteraenergy.com; 'Marine Turtle Permits'; 'Michael Bresette'; EndangeredSpecies Resource; 'SCO'; 'Vince Munne'; 'Eaton, Kristin'; 'William Nurnberger'; audra.livergood@noaa.gov; 'Cody Mott'; 'Ryan Welsh'; 'Jeff Guertin'; 'Annessia Michaels'; 'Andrea Fisher'; Robert.Craven@fpl.com; Damon.Hobson@fpl.com; Andrew.McHenry@fpl.com; Timothy.Falkiewicz@fpl.com
Subject: [External_Sender] May 2024 FPL Marine Turtle Removal Monthly Report
Attachments: May '24 Sea Turtle Monthly Report.pdf

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

**Subject: Marine Turtle Removal Monthly Summary
May 2024**

Dear Meghan,

Attached, please find the monthly summary of marine turtle removals for May 2024. This month we captured 39 *Caretta caretta*, nine *Chelonia mydas*, and one *Lepidochelys kempii* in the intake canal of the St. Lucie power plant on Hutchinson Island. Two sea turtles were sent for rehabilitation (non-causal), and there were no recorded mortalities this month. 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 green was recovered by dip net with an embedded hook and monofilament line in the left front flipper. On May 18th, a subadult loggerhead was recovered from the north tangle net with a shark bite to its right front flipper (bone protruding). Both turtles were taken to Loggerhead Marinelifelife Center in Juno Beach for rehab. Because these injuries/illnesses were unrelated to the power plant, these were classified as non-causal strandings.

The primary 5-inch barrier net encountered negligible-to-severe amounts of algae and jellyfish 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 2024. 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,
Aaron Garstin
Biologist
Inwater Research Group, Inc.
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(201) 301-4563

Hearing Identifier: NRR_DRMA
Email Number: 2531

Mail Envelope Properties (007801dabf33\$d0eb9bb0\$72c2d310\$)

Subject: [External_Sender] May 2024 FPL Marine Turtle Removal Monthly Report
Sent Date: 6/15/2024 10:53:39 AM
Received Date: 6/15/2024 10:54:07 AM
From: agarstin@inwater.org

Created By: agarstin@inwater.org

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Tracking Status: None

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Files	Size	Date & Time
MESSAGE	2522	6/15/2024 10:54:07 AM
May '24 Sea Turtle Monthly Report.pdf		369769

Options	
Priority:	Normal
Return Notification:	No
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Sensitivity:	Normal
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Sincerely,



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MARINE TURTLE REMOVALS ST. LUCIE PLANT INTAKE CANAL

Date	Species	Note	Tag #'s	SMCL (cm)	SSCL (cm)	CSCL (cm)	CMCW (cm)	SMCW (cm)	SMPL (cm)	Weight (kg)	Method
5/1/2024	<i>Caretta caretta</i>	1	FFV083/FFV084	88.4	90.8	97.0	89.3	71.1	69.0	106.2	North net
5/1/2024	<i>Caretta caretta</i>		FFV085/FFV086	64.4	65.3	69.5	68.4	57.3	50.9	44.5	South net
5/2/2024	<i>Chelonia mydas</i>	2	FFS376/	52.4	52.6	55.9	48.5	40.5	41.0	18.0	South net
5/2/2024	<i>Caretta caretta</i>	3	FFV087/FFV088	86.0	88.9	93.7	83.7	67.9	67.8	109.0	North net
5/2/2024	<i>Caretta caretta</i>		FFV089/FFV090	78.4	79.4	83.8	74.7	58.0	61.2	65.9	South net
5/3/2024	<i>Caretta caretta</i>	4	FFE792/FFE793	65.8	68.3	74.0	64.9	54.5	49.3	39.9	South net
5/6/2024	<i>Caretta caretta</i>		FFV091/FFV092	78.5	79.9	86.7	75.5	60.1	62.2	79.0	North net
5/6/2024	<i>Caretta caretta</i>	5	FFV093/FFV094	87.8	88.0	93.7	84.7	64.5	67.6	95.8	South net
5/6/2024	<i>Lepidochelys kempii</i>		FFV095/FFV096	54.3	55.4	58.0	64.0	55.5	41.1	23.1	South net
5/6/2024	<i>Caretta caretta</i>		FFV097/FFV098	70.2	71.8	81.2	72.9	58.1	53.8	52.2	South net
5/7/2024	<i>Chelonia mydas</i>	6	/FFM383	50.9	51.3	54.1	46.5	40.0	42.2	17.7	North net
5/7/2024	<i>Caretta caretta</i>	7	FFV099/FFV100	95.7	97.4	103.7	97.0	72.2	71.1	145.7	North net
5/7/2024	<i>Caretta caretta</i>	8	FFV101/FFV102	90.7	92.3	100.1	90.2	68.8	68.0	107.7	South net
5/8/2024	<i>Caretta caretta</i>	9	FFV103/FFV104	86.0	88.7	95.2	86.7	65.6	65.5	106.2	North net
5/8/2024	<i>Caretta caretta</i>	10	FFV105/FFV106	94.7	95.9	103.7	95.5	71.1	71.8	131.4	South net
5/10/2024	<i>Caretta caretta</i>		FFV107/FFV108	75.7	77.0	82.2	72.6	57.7	57.0	55.2	South Net
5/11/2024	<i>Caretta caretta</i>	11	FFV109/FFV110	83.7	85.1	90.2	79.7	65.2	65.4	90.3	North Net
5/11/2024	<i>Caretta caretta</i>	12	FFV111/FFV112	87.4	89.2	91.7	89.9	66.3	69.5	112.1	North Net
5/11/2024	<i>Caretta caretta</i>	13	FFV113/FFV114	87.2	88.8	94.2	85.1	67.9	68.1	101.7	North Net
5/13/2024	<i>Caretta caretta</i>	14	FFV115/FFV116	90.9	92.5	98.9	87.7	68.0	73.6	108.1	North Net
5/14/2024	<i>Chelonia mydas</i>	15	FFM406/FFM407	55.5	55.7	69.4	63.6	52.0	53.6	39.6	South Net
5/14/2024	<i>Chelonia mydas</i>	16	FFT375/	58.5	58.9	62.3	57.7	44.9	47.5	25.8	Dip Net
5/14/2024	<i>Caretta caretta</i>	17	FFV117/FFV118	86.1	87.1	93.4	86.3	65.9	69.6	95.3	North Net
5/14/2024	<i>Chelonia mydas</i>	18	FFV119/KKY057	55.4	55.5	58.4	50.2	42.3	43.8	22.1	North Net
5/14/2024	<i>Caretta caretta</i>	19	FFV120/FFV121	92.0	94.8	101.2	86.0	64.9	67.0	101.1	North Net
5/14/2024	<i>Chelonia mydas</i>	20	MMX212/FFT528	43.2	43.3	46.6	43.8	36.7	35.4	12.3	North Net

5/15/2024	<i>Caretta caretta</i>	21	FFW000/FFW001	93.9	94.3	101.5	93.2	70.7	72.1	130.7	Dip Net
5/16/2024	<i>Caretta caretta</i>		FFV126/FFV127	73.0	73.5	77.8	72.2	57.6	56.3	58.7	North Net
5/16/2024	<i>Caretta caretta</i>	22	FFV129/FFV128	92.2	92.7	100.0	93.5	76.0	71.8	121.8	North Net
5/17/2024	<i>Caretta caretta</i>	23	FFV122/FFV123	90.5	91.6	97.6	92.1	71.2	66.8	113.8	North Net
5/18/2024	<i>Caretta caretta</i>	24	/	70.2	70.8	77.6	71.7	56.8	54.5	57.0	North Net
5/18/2024	<i>Caretta caretta</i>	25	FFV124/FFV125	97.3	98.0	103.8	90.2	66.5	67.6	112.0	South Net
5/19/2024	<i>Caretta caretta</i>	26	FFV130/FFV131	92.4	92.9	98.3	84.2	68.8	69.8	116.6	South Net
5/19/2024	<i>Caretta caretta</i>	27	FFV132/FFV133	83.3	84.8	91.5	83.7	59.9	63.5	83.2	South Net
5/21/2024	<i>Caretta caretta</i>	28	FFV134/FFV135	85.5	87.0	93.6	85.2	68.0	69.0	92.2	South Net
5/22/2024	<i>Caretta caretta</i>	29	FFV136/FFV137	92.3	94.5	98.0	87.5	71.6	71.4	125.3	South Net
5/22/2024	<i>Caretta caretta</i>	30	FFV138/FFV139	92.4	94.3	99.7	88.6	70.0	75.6	119.9	South Net
5/23/2024	<i>Chelonia mydas</i>	31	FFV140/FFV141	52.3	52.5	54.5	47.5	40.8	42.0	17.3	North Net
5/23/2024	<i>Caretta caretta</i>		FFV142/FFV143	79.8	80.5	87.1	78.1	57.8	63.0	73.6	North Net
5/23/2024	<i>Caretta caretta</i>	32	FFV144/FFV145	95.9	98.5	103.3	93.0	75.8	77.2	139.9	North Net
5/25/2024	<i>Caretta caretta</i>	33	FFV147/FFV146	99.3	99.9	106.5	91.9	69.6	71.4	139.6	North Net
5/26/2024	<i>Caretta caretta</i>	34	FFV148/FFV149	85.2	86.3	92.1	86.8	70.5	66.4	96.0	North Net
5/26/2024	<i>Caretta caretta</i>	35	FFV150/FFV151	84.2	85.5	91.5	82.6	63.1	65.2	85.0	North Net
5/28/2024	<i>Caretta caretta</i>		FFV153/FFV152	79.5	80.0	87.5	80.0	61.0	60.2	77.8	South Net
5/29/2024	<i>Caretta caretta</i>		FFV154/FFV155	70.1	71.0	76.5	71.9	58.9	56.5	56.0	North Net
5/30/2024	<i>Caretta caretta</i>	36	FFE439/FFE440	67.8	69.7	72.9	66.6	55.5	51.9	42.3	South Net
5/30/2024	<i>Chelonia mydas</i>	37	FFM469/FFM470	62.5	62.8	66.9	60.4	48.8	50.0	34.0	North Net
5/30/2024	<i>Caretta caretta</i>		FFV156/FFV157	82.9	84.8	90.2	83.6	66.1	62.9	96.7	North Net
5/31/2024	<i>Chelonia mydas</i>	38	FFT410/	47.5	47.7	50.1	43.3	36.2	40.4	14.9	North Net

NOTES

1. Adult female loggerhead. TL= 22.3 cm. Healing mating wounds on neck.
2. RECAPTURE, from 4/27/18, 4/19/19, 6/3/19, 9/14/19, 10/8/19, 12/2/19, 1/3/20, 8/16/20, 1/23/21, 1/6/22, 12/14/22, 2/8/23, 2/19/23, 4/14/23, 6/2/23, 6/11/23, 9/24/23, 11/20/23, 1/8/24, 3/7/24. Healed entanglement wound on proximal RFF. Missing trailing edge of LRF. Missing small notch at tip of RFF. No new RFF inconel tag applied due to tag scars.
3. Adult female loggerhead. TL= 21.1 cm. Healing mating wounds on dorsal and ventral sides of neck. Puncture wounds ventral base of neck.
4. RECAPTURE, from: 8/23/19, 12/15/19, 1/19/20, 7/24/20, 3/3/21, 6/8/21, 8/11/21, 10/19/21, 3/12/22, 8/11/22, 10/15/22, 4/15/23, 5/6/23, 7/19/23, 8/22/23. Missing, healed portion of left carapace along marginals. Curved measurements OB.
5. Adult female loggerhead. TL= 21.5 cm. Missing 85% of RFF, healing. Healing wounds on base of LFF. 10 cm wound along marginals close to RRF, skin separating from shell. PIT tag in LFF due to flipper damage. Photo plate mislabeled in ventral photo.
6. RECAPTURE, from 4/19/18, 5/24/18, 11/5/18, 3/1/20, 7/27/20, 9/22/20, 12/30/20, 3/16/22, 1/26/23, 9/5/23, 1/25/24.
7. Adult female loggerhead. TL= 25 cm. Missing healed trailing edge of LFF. Healed notch in RRF.
8. Adult female loggerhead. TL= 26.2 cm. Healed notch in RFF. Healing mating wound ventral side of neck. Healed notches in rear marginals. 27 x 16 cm healed damage to carapace, likely boat strike.
9. Adult female loggerhead. TL= 24.8 cm. Possible tag scar in RFF.
10. Adult female loggerhead. TL= 22.4 cm.
11. Adult female loggerhead. TL= 18.2 cm. Constriction wounds on both right and left marginals. Healing mating wounds on both axilla. Curved measurements OB.
12. Adult female loggerhead. TL= 24.5 cm. Old mating wound ventral side of neck. Old healed carapace damage right posterior, probably an old boat strike. Missing 5% healed RRF. Possible old hooking wound in RRF.
13. Adult female loggerhead. TL= 22.5 cm. Mating wound on dorsal side of neck. Curved measurements OB.
14. Adult female loggerhead. TL= 20.7 cm. 5% missing, healed LFF. Missing small portion LRF.
15. RECAPTURE, from 7/19/11, 10/3/21, 2/25/23, 11/28/23.
16. RECAPTURE, from: 11/12/20, 12/16/21, 12/17/22, 5/5/23, 5/18/23, 9/11/23, 9/26/23, 12/27/23. REHAB (NON-CAUSAL); STSSN# HWB240514-002. "Yiannis". Embedded fishing hook trailing small portion of line in LFF. Small chip out of upper tomium (FS). 5% missing, healed LFF. Taken to LMC for rehab. CMCL: 61.8 cm.
17. Adult female loggerhead. TL= 16.8 cm. Old prop wound on posterior vertebral scutes (13.6 cm). 50% missing, healed LFF. Healing mating wounds ventral side RFF.
18. RECAPTURE, from 11/12/20, 8/21/21. Healing wound ventral base RFF. New inconel tag applied to LFF.
19. Adult male loggerhead. TL= 45.5 cm. Soft concave plastron. Mating wounds on tail. Curved measurements taken OB.
20. RECAPTURE, from: 1/19/18, 8/22/23, 11/17/23.
21. Adult female loggerhead. TL= 28.5 cm. STRANGE TAG, originally found during nighttime tagging on 4/30/24 nesting in Zone O (27.34621, -80.23649). Mating wound on neck.
22. Adult female loggerhead. TL= 24 cm. Small healed notch in RRF. Lower tag in RFF.
23. Adult female loggerhead. TL= 26 cm.
24. REHAB (NON-CAUSAL); STSSN# HWB20240518-001. "Janel". Shark bite on RFF, with bone protruding. Shark rakings on carapace and plastron. Brought to LMC for rehab. CMCL: 76.7 cm.
25. Adult male loggerhead. TL= 47.9 cm. Missing healed 10% LRF. Curved measurements OB.
26. Adult female loggerhead. TL= 26.9 cm. Missing, healed 5% RFF.
27. RECAPTURE, from 7/15/11.
28. Adult female loggerhead. TL= 20.5 cm. Healed notches trailing edges of RFs. Healing wound ventral side of neck.
29. Adult female loggerhead. TL= 21.9 cm. Injury along right pygal and penultimate marginal. Healed notches in both RFs. Photo plate has wrong date.
30. Adult female loggerhead. TL= 19.9 cm.
31. RECAPTURE, from 2/1/22, 11/14/22, 12/31/22, 2/8/23, 5/13/23, 5/22/23, 6/9/23.
32. Adult female loggerhead. TL= 25.5 cm. 50% missing LFF. Small healed notch in RFF. Healed wound (hole) on LRF.
33. Adult male loggerhead. TL= 46.8 cm. 60% missing, healed LFF. Wound to right eye, possibly from mating/fighting. Shark wounds on ventral side RRF, plastron, base of RFF. Lower tag in RFF.
34. Adult female loggerhead. TL= 20.1 cm. Small healed notch on RFF. Incorrect date on ventral photo.

35. Adult female loggerhead. TL= 18.9 cm. Missing healed right marginals. Mating wound ventral side of neck.
36. RECAPTURE, from: 10/19/21, 5/3/22, 10/22/22, 11/12/22, 1/15/23, 2/21/23, 4/1/23, 4/27/23, 7/8/23, 9/7/23, 10/8/23, 10/29/23, 12/15/23, 3/21/24. "Dexter". Missing, healed 10% LRF. Possible maturing male.
37. RECAPTURE, from 9/23/19, 8/20/22, 4/22/23, 12/7/23.
38. RECAPTURE, from 10/7/17, 9/30/22, 9/23/23, 10/6/23, 2/11/24. Indent to right anterior carapace, fully healed. No new tag in RFF due to tag scars.

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>		Olive ridley <i>(Lepidochelys olivacea)</i>		Overall Totals	
	May-24	Year to Date	May-24	Year to Date	May-24	Year to Date	May-24	Year to Date	May-24	Year to Date	May-24	Year to Date	May-24	Year to Date
Captures	39	92	9	108	0	1	0	0	1	9	0	0	49	210
Causal Mortalities	0	0	0	1	0	0	0	0	0	0	0	0	0	1
Non-Causal Mortalities	0	1	0	0	0	0	0	0	0	0	0	0	0	2
Causal Injuries	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sent to rehab	1	9	1	5	0	0	0	0	0	0	0	0	2	14
Fresh Scrapes	May-24	Year to Date	May-24	Year to Date	May-24	Year to Date	May-24	Year to Date	May-24	Year to Date	May-24	Year to Date	May-24	Year to Date
None	3	9	0	10	0	0	0	0	0	0	0	0	3	19
Minor	36	83	9	97	0	1	0	0	1	9	0	0	46	190
Moderate	0	0	0	1	0	0	0	0	0	0	0	0	0	1
Severe	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Percent with mod/sev scrapes	0.0%	0.0%	0.0%	0.9%	NA	0.0%	NA	NA	0.0%	0.0%	NA	NA	0.0%	0.5%