

Balsam, Briana

From: Michael_Bresette@fpl.com
Sent: Wednesday, April 08, 2009 12:04 PM
To: Meghan.Koperski@MyFWC.com
Cc: Logan, Dennis; Ed_Hollowell@fpl.com; Shelley.Norton@noaa.gov; Vince_Munne@fpl.com; Winifred.Perkins@fpl.com; Bob.Hoffman@noaa.gov; Stacy.Foster@fpl.com; David.Niebch@fpl.com; Jodie.Gless@fpl.com
Subject: March Sea Turtle captures
Attachments: St. Lucie caps 2009.xls; March09.pdf

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

Subject: Marine Turtle Removal Monthly Summary
March 2009

Dear Meghan,

Attached, please find the monthly summary of marine turtle removals for March 2009. In March, we captured thirty one (31) Caretta caretta and twenty three (23) Chelonia mydas at the intake canal of the St. Lucie power plant on South Hutchinson Island. On March 9, a lethargic juvenile green turtle with fibropapillomas was found at the top of the primary barrier net and was transported to the Mote Marine Lab for rehabilitation after consultation with personnel from FWCC. On March 13, a loggerhead with deep, healing propeller wounds was captured and transported to the Marinelife Center in Juno Beach after consultation with personnel from FWCC. Both of these incidents were not considered causal to power plant operation. On March 23, a loggerhead was found at the top of the barrier net with several healing wounds from a possible boat hit. This turtle also sustained a fresh, deep cut behind the left eye and a skull fracture to the left dorsal side of the head as a result of entrainment through the intake pipe. The turtle was transported to the Marinelife Center after consultation with personnel from FWCC and this injury was considered causal to power plant operation.

There was one mortality recorded at the intake canal in March. On March 23, during hand capture efforts by snorkelers a moderately decomposed loggerhead was found on the bottom of the canal, halfway between the headwall and primary barrier net. This turtle was not buried and was likely entrained into the canal in the moribund state it was found. This turtle was extremely emaciated with a heavy epibiont load. Because this turtle was found in the middle of the canal, we believe that it must have come in shortly before hand capture efforts began. If this turtle had been undetected it would have ended up on the barrier net within a couple of hours due to the strong currents in the canal. After consultation with personnel from FWCC, this

mortality was not considered causal to power plant operation. All other turtles that were captured in March were released on the same day of capture.

Throughout the month of March the primary barrier net experienced heavy loads of algae that threatened its integrity. Divers were deployed to clean the nets during five days in March to restore the net to original design specifications.

Tag numbers and morphometric data for all turtles are attached. Also, attached is a spreadsheet of all captures, mortalities, injuries and causal events delineated by species and month for 2009. This spreadsheet tracks fresh scrapes and will be helpful in determining the success of the intake pipe cleaning project. If you have any questions or comments about the enclosed data please contact me at your convenience.

Sincerely,

Michael J. Bresette
Sr. Environmental Specialist
Quantum Resources, Inc.

(See attached file: St. Lucie caps 2009.xls)(See attached file: March09.pdf)

**MARINE TURTLE REMOVALS
ST. LUCIE PLANT INTAKE CANAL
MARCH 2009**

Date	Species	Note	Tag #'s	SMCL (cm)	SSCL (cm)	CSCL (cm)	CMCW (cm)	SMCW (cm)	SMPL (cm)	Weight (kg)	Method
3/1/2009	<i>Caretta caretta</i>		YYW128/YYW129	66.5	67.9	73.4	68.8	56.5	53.9	48.2	Hand capture
3/1/2009	<i>Caretta caretta</i>		YYW130/YYW131	61.8	63.3	67.0	62.7	51.4	48.9	33.0	Hand capture
3/2/2009	<i>Caretta caretta</i>		YYW132/YYW133	62.1	63.6	68.1	65.8	53.9	49.9	37.5	Hand capture
3/5/2009	<i>Chelonia mydas</i>			28.5	29.2	30.3	24.3	21.9	23.5	2.9	Dip net
3/5/2009	<i>Chelonia mydas</i>			25.6	26.1	27.4	23.5	20.8	22.5	2.2	Hand capture
3/5/2009	<i>Caretta caretta</i>		YYW134/YYW135	65.2	66.1	70.1	67.8	56.3	54.4	42.2	North net
3/5/2009	<i>Caretta caretta</i>		YYW136/YYW137	57.0	58.1	62.4	60.5	49.0	44.2	27.9	South net
3/8/2009	<i>Chelonia mydas</i>	1		31.2	31.7	33.8	28.4	25.8	25.5	3.8	Hand capture
3/8/2009	<i>Caretta caretta</i>	2	TTY220/TTY221	66.9	68.3	73.0	56.7	68.1	50.9	38.8	Hand capture
3/9/2009	<i>Chelonia mydas</i>	3		29.8	30.0	32.4	26.6	23.1	25.7	3.4	Barrier net
3/10/2009	<i>Caretta caretta</i>		YYW138/YYW139	69.4	70.7	76.7	73.5	59.6	55.0	51.0	Hand capture
3/12/2009	<i>Caretta caretta</i>		YYW140/YYW141	67.1	68.1	72.0	67.5	55.4	52.1	42.3	North net
3/13/2009	<i>Caretta caretta</i>	4		70.6	72.7	78.2	70.1	57.5	53.8	50.7	South net
3/13/2009	<i>Chelonia mydas</i>			24.2	25.0	25.9	22.8	20.6	20.7	1.9	North net
3/13/2009	<i>Caretta caretta</i>		YYW142/YYW143	59.1	60.4	63.3	57.7	50.2	45.8	29.2	North net
3/13/2009	<i>Caretta caretta</i>		YYW144/YYW145	78.7	79.6	85.1	78.9	64.0	60.2	69.2	North net
3/14/2009	<i>Chelonia mydas</i>		YYW146	29.3	29.6	32.5	29.7	25.3	24.3	3.7	Hand capture

Date	Species	Note	Tag #'s	SMCL (cm)	SSCL (cm)	CSCL (cm)	CMCW (cm)	SMCW (cm)	SMPL (cm)	Weight (kg)	Method
3/15/2009	<i>Chelonia mydas</i>			33.2	33.6	35.1	30.7	26.9	26.9	4.4	North net
3/15/2009	<i>Caretta caretta</i>	5	YYW147/YYW148	86.5	87.9	94.4	90.0	70.5	68.2	92.5	South net
3/16/2009	<i>Caretta caretta</i>		YYW149/YYW150	56.6	57.7	62.2	61.1	50.7	46.0	26.7	North net
3/17/2009	<i>Caretta caretta</i>	6	YYR246/YYR247	60.6	61.2	65.9	64.1	51.6	46.3	32.4	Hand capture
3/19/2009	<i>Chelonia mydas</i>		YYW151	28.8	29.1	30.5	25.4	23.5	24.0	3.1	Hand capture
3/21/2009	<i>Chelonia mydas</i>			26.3	26.6	28.8	24.8	22.2	22.6	2.6	Barrier net
3/21/2009	<i>Caretta caretta</i>		YYW152/YYW153	67.4	68.4	74.4	73.6	59.4	53.3	52.6	North net
3/22/2009	<i>Chelonia mydas</i>			27.9	28.3	30.8	27.3	23.6	23.4	3.3	Barrier net
3/22/2009	<i>Caretta caretta</i>		YYW154/YYW155	54.6	55.5	61.3	60.0	49.2	45.5	28.5	North net
3/22/2009	<i>Chelonia mydas</i>	7	YYW156	73.1	73.1	78.2	72.1	58.8	59.9	55.5	Hand capture
3/23/2009	<i>Chelonia mydas</i>			27.0	27.4	29.1	25.2	22.2	22.6	2.5	Dip net
3/23/2009	<i>Caretta caretta</i>	8		85.2	87.0	93.0	84.5	68.8	65.4	94.6	Barrier net
3/23/2009	<i>Caretta caretta</i>		YYW157/YYW158	61.9	63.2	67.6	67.0	56.5	49.9	43.3	North net
3/24/2009	<i>Caretta caretta</i>		YYW159/YYW160	64.2	65.3	70.1	68.5	56.1	51.9	40.4	South net
3/24/2009	<i>Caretta caretta</i>		YYW161/YYW162	72.2	73.6	80.0	81.4	62.0	58.4	68.4	South net
3/25/2009	<i>Caretta caretta</i>	9		70.2	71.4	77.0	72.2	57.7	52.9	34.0	Hand capture
3/25/2009	<i>Chelonia mydas</i>	10	YYR260	43.2	43.5	47.3	42.3	35.6	36.1	11.8	Hand capture
3/25/2009	<i>Caretta caretta</i>		YYW163/YYW164	57.3	58.4	62.1	60.0	49.5	46.4	31.4	Hand capture
3/25/2009	<i>Caretta caretta</i>		YYW165/YYW166	55.2	56.0	60.6	57.6	47.1	43.3	24.5	Hand capture
3/27/2009	<i>Chelonia mydas</i>			26.7	26.9	28.8	23.6	20.6	22.3	2.7	Hand capture

Date	Species	Note	Tag #'s	SMCL (cm)	SSCL (cm)	CSCL (cm)	CMCW (cm)	SMCW (cm)	SMPL (cm)	Weight (kg)	Method
3/27/2009	<i>Chelonia mydas</i>		YYW167	29.1	29.4	31.5	27.0	22.5	23.8	3.1	Dip net
3/27/2009	<i>Caretta caretta</i>		YYW168/YYW169	67.6	68.5	75.0	77.7	58.2	54.3	48.5	Dip net
3/28/2009	<i>Chelonia mydas</i>			27.9	28.4	30.2	25.9	23.2	23.9	3.1	Dip net
3/28/2009	<i>Chelonia mydas</i>	11	YYW170	40.0	40.3	43.0	37.2	31.8	33.0	9.0	North net
3/28/2009	<i>Chelonia mydas</i>		YYW171	39.5	39.9	42.5	37.2	31.9	32.6	8.1	North net
3/29/2009	<i>Chelonia mydas</i>			26.1	26.2	27.9	23.1	20.8	22.4	2.3	Hand capture
3/29/2009	<i>Chelonia mydas</i>			32.0	32.3	34.2	28.4	25.6	26.0	4.1	Hand capture
3/29/2009	<i>Chelonia mydas</i>	12	YYW172	36.0	36.3	38.6	33.7	28.5	29.5	5.8	South net
3/29/2009	<i>Caretta caretta</i>		YYW173/YYW174	58.5	59.7	65.0	63.6	51.0	46.7	33.4	South net
3/30/2009	<i>Caretta caretta</i>		YYW175/YYW176	65.0	66.2	71.6	67.8	54.9	53.2	43.3	Hand capture
3/30/2009	<i>Chelonia mydas</i>		YYW177	33.3	33.7	36.5	29.6	25.7	26.8	4.6	Hand capture
3/31/2009	<i>Chelonia mydas</i>			33.9	34.3	35.9	32.7	27.8	27.1	5.1	South net
3/31/2009	<i>Caretta caretta</i>	13	TTY211	63.5	64.7	69.2	66.0	53.5	48.1	34.0	Hand capture
3/31/2009	<i>Caretta caretta</i>		YYW178/YYW179	65.2	67.2	74.4	68.1	54.7	51.5	41.2	South net
3/31/2009	<i>Caretta caretta</i>		YYW180/YYW181	71.9	73.3	78.1	71.4	60.5	56.0	50.5	South net
3/31/2009	<i>Caretta caretta</i>		YYW182/YYW183	68.0	69.3	76.1	73.9	60.4	54.5	51.5	Hand capture
3/31/2009	<i>Caretta caretta</i>		YYW184/YYW185	64.7	66.1	70.8	68.5	55.8	51.3	41.2	Hand capture

NOTES

1. Recapture. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 10/16/08
2. Recapture. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 1/17/07
3. Turtle found at surface of primary barrier net. Lethargic and covered with papillomas and leech cocoons. Tumor score = 82. Transported to Mote Marine Lab by FWC personnel. Not causal to power plant operation.
4. Turtle found with two deep propeller cuts along posterior costal and marginal scutes on both sides. Wounds are healing and extend deep into body cavity. Turtle was held overnight and transported to Marinelife Center on 3/14/09. Not causal to power plant operation
5. Adult female. Tail length = 171 mm
6. Recapture. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 8/23/08, 9/17/08 and 1/10/09.
7. Recapture. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 2/16/98, 3/11/02, 8/11/02, 5/10/05, 6/15/05, 9/2/05, 12/12/05, 4/25/06, 8/20/06, 9/17/07, 1/25/08 and 4/13/08.
8. Turtle found at surface of primary barrier net with injuries. Compound fracture to left rear flipper with bone and muscle exposed. Deep gash on tail and another deep gash on posterior area of plastron on left side extending into soft tissue. These injuries were most likely due to an offshore boat strike prior to entrainment. Moderate to severe fresh cuts and scrapes on head with one causing skull fracture to left side. This injury was causal to power plant operation. Turtle was transported to Marinelife Center after consulting with FWCC personnel
9. Turtle was found dead at bottom of intake canal by a diver. No wounds or abnormalities. Moderately decomposed. Not causal to power plant operation
10. Recapture. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 7/24/03, 1/16/04, 9/23/05, 9/19/06 and 8/28/08
11. Recapture. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 12/21/05.
12. Recapture. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 9/30/05 and 4/5/06
13. Recapture. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 1/12/07, 2/28/07, 7/12/07, 8/5/07 and 9/8/07

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-08	Year to Date	Mar-08	Year to Date	Mar-08	Year to Date	Mar-08	Year to Date	Mar-08	Year to Date	Mar-08	Year to Date
Captures	31	66	23	61	0	0	0	0	0	0	54	127
Causal Mortalities	0	0	0	0	0	0	0	0	0	0	0	0
Non-causal Mortalities	1	1	0	0	0	0	0	0	0	0	1	1
Causal Injuries	1	1	0	0	0	0	0	0	0	0	1	1
Sent to rehab	2	4	1	2	0	0	0	0	0	0	3	6
Fresh Scrapes	Mar-08	Year to Date	Mar-08	Year to Date	Mar-08	Year to Date	Mar-08	Year to Date	Mar-08	Year to Date	Mar-08	Year to Date
None	4	4	1	2	0	0	0	0	0	0	5	6
Minor	15	42	19	41	0	0	0	0	0	0	34	83
Moderate	10	18	3	17	0	0	0	0	0	0	13	35
Severe	2	2	0	1	0	0	0	0	0	0	2	3
Percent with mod/sev scrapes	38.7%	30.3%	13.0%	29.5%	#DIV/0!	#DIV/0!	0.0%	0.0%	#DIV/0!	0.0%	27.8%	29.9%