

Balsam, Briana

From: David Singewald [dsingewald@att.net]
Sent: Monday, January 11, 2010 9:23 AM
To: meghan.koperski@myfwc.com
Cc: Logan, Dennis; ed_hollowell@fpl.com; shelley.norton@noaa.gov; vince_munne@fpl.com; bob.hoffman@noaa.gov; david_niebch@fpl.com; jodie_gless@fpl.com; mbresette@inwater.org
Subject: Marine Turtle Captures December 2009
Attachments: Dec09rep.rtf; Notes09.xls; St. Lucie caps 2009.xls

Dear Meghan,

Attached, please find the monthly summary of marine turtle removals for December 2009. In December, we captured twenty four (24) *Caretta caretta*, and twenty four (24) *Chelonia mydas* at the intake canal of the St. Lucie power plant on Hutchinson Island. On December 28, a sub-adult loggerhead was found with deep lacerations to both rear flippers caused by a shark attack. After consultation with FFWCC personnel this turtle was transported to the Marinelife Center in Juno Beach by Inwater Research Group biologists and was determined to be non-causal to power plant operation. On the same day, a sub-adult green turtle was captured and found to have multiple fresh cuts and scrapes to the head exposing the skull. This event was considered causal to power plant operation as a result of injuries sustained during entrainment through the intake pipe. This turtle was transported by IRG biologists to the Marinelife Center in Juno Beach as a cautionary measure of a possible skull fracture and/or concussion.

Throughout the month of December the 5" barrier net experienced light loads of algae that entered into the intake canal. This temporary barrier has effectively kept turtles from moving further down the canal. A permanent fix to the primary net continues to remain in the design phase.

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/year to date for 2009. This spreadsheet also includes and tracks fresh scrapes incurred on captured turtles for the month of December as well as 2009 year end totals and percentage.

Sincerely,

David A. Singewald
Sr. Environmental Specialist
Inwater Research Group, Inc.
4160 NE Hyline Dr.
Jensen Beach, FL 34957
772-216-5096

MARINE TURTLE REMOVALS ST. LUCIE PLANT INTAKE CANAL DECEMBER 2009

Date	Species	Note	Tag #'s	SMCL (cm)	SSCL (cm)	CSCL (cm)	CMCW (cm)	SMCW (cm)	SMPL (cm)	Weight (kg)	Method
12/2/2009	<i>Caretta caretta</i>	1	TTY211	63.0	64.6	67.7	64.8	53.6	48.0	35.0	Hand capture
12/2/2009	<i>Caretta caretta</i>		UUB708/UUB709	56.5	57.4	61.8	58.4	49.6	45.5	28.4	South net
12/3/2009	<i>Chelonia mydas</i>	2	YYW346	40.0	40.1	42.3	36.7	31.7	33.9	6.4	North net
12/4/2009	<i>Caretta caretta</i>		UUB710/UUB711	71.1	72.8	77.6	72.7	60.1	53.4	45.9	Hand capture
12/7/2009	<i>Chelonia mydas</i>		UUB712/UUB713	39.4	40.1	42.0	35.3	31.3	33.1	6.8	North net
12/7/2009	<i>Caretta caretta</i>		UUB714/UUB715	65.8	67.2	72.2	68.0	58.4	53.8	45.1	North net
12/7/2009	<i>Chelonia mydas</i>	3	YYB180	60.7	60.9	65.0	57.0	47.7	50.8	33.0	North net
12/9/2009	<i>Chelonia mydas</i>		UUB716/UUB717	63.3	64.6	68.3	60.2	51.5	52.2	30.4	South net
12/9/2009	<i>Caretta caretta</i>		UUB718/UUB719	63.1	64.2	69.1	64.5	54.6	50.7	37.3	South net
12/10/2009	<i>Caretta caretta</i>		UUB720/UUB721	64.5	66.1	72.6	71.0	57.7	51.0	40.4	Hand capture
12/10/2009	<i>Chelonia mydas</i>	4	UUB722/UUB723	67.4	67.8	72.8	65.8	52.4	54.7	40.8	Hand capture
12/10/2009	<i>Chelonia mydas</i>		UUB724	45.3	45.5	48.1	40.0	35.8	37.7	11.6	Hand capture
12/10/2009	<i>Chelonia mydas</i>	5	UUB725	55.2	55.4	59.9	52.9	42.8	45.4	23.9	Hand capture
12/11/2009	<i>Caretta caretta</i>		UUB726/UUB727	58.5	59.3	65.6	62.9	50.0	46.7	36.0	South net
12/12/2009	<i>Chelonia mydas</i>		UUB728	29.4	29.8	31.3	27.1	24.5	25.4	3.3	North net
12/13/2009	<i>Chelonia mydas</i>		UUB729/UUB730	73.0	73.4	78.0	68.2	56.7	60.2	47.8	North net
12/13/2009	<i>Caretta caretta</i>		UUB731/UUB732	72.6	73.8	80.6	76.3	64.0	55.6	57.9	North net

Date	Species	Note	Tag #'s	SMCL (cm)	SSCL (cm)	CSCL (cm)	CMCW (cm)	SMCW (cm)	SMPL (cm)	Weight (kg)	Method
12/14/2009	<i>Chelonia mydas</i>	6	UUB733	52.3	52.3	55.5	51.4	41.8	42.2	20.2	North net
12/14/2009	<i>Chelonia mydas</i>	7	YYW391	52.7	53.1	56.2	49.6	44.5	43.1	20.1	South net
12/15/2009	<i>Chelonia mydas</i>	8	YYW069	51.4	51.9	54.5	47.3	39.9	42.9	17.3	North net
12/16/2009	<i>Caretta caretta</i>		UUB734/UUB735	53.3	54.2	59.0	56.0	47.5	42.5	24.6	North net
12/18/2009	<i>Caretta caretta</i>		UUB736/UUB737	60.4	61.4	67.3	63.8	52.9	45.8	35.4	North net
12/18/2009	<i>Caretta caretta</i>	9	YYR246/YYR247	60.6	62.2	68.2	65.0	50.5	46.2	35.8	North net
12/19/2009	<i>Chelonia mydas</i>	10	UUB738/UUB739	49.8	50.3	53.6	46.5	39.7	41.3	16.0	South net
12/20/2009	<i>Caretta caretta</i>		UUB740/UUB741	65.0	66.4	71.9	69.4	57.4	54.3	49.8	North net
12/21/2009	<i>Chelonia mydas</i>			26.5	27.0	28.1	22.6	20.5	21.8	2.1	Dip net
12/21/2009	<i>Caretta caretta</i>		UUB742/UUB743	47.0	47.8	52.0	51.2	41.4	37.1	16.1	North net
12/21/2009	<i>Chelonia mydas</i>		UUB744	31.2	31.3	33.0	29.8	26.7	25.9	4.1	Dip net
12/23/2009	<i>Chelonia mydas</i>			28.8	29.1	30.5	26.5	24.3	24.5	3.2	Dip net
12/23/2009	<i>Chelonia mydas</i>		UUB745	42.3	43.0	44.5	37.8	32.8	34.1	9.7	North net
12/26/2009	<i>Chelonia mydas</i>	11		70.1	70.5	75.0	67.1	55.0	59.3	48.6	North net
12/26/2009	<i>Caretta caretta</i>		UUB746/UUB747	69.0	70.2	76.9	75.0	60.7	55.6	52.2	North net
12/26/2009	<i>Caretta caretta</i>		UUB748/UUB749	67.6	68.9	73.3	73.4	58.9	56.6	52.8	North net
12/26/2009	<i>Caretta caretta</i>		UUB750/UUB751	62.3	63.7	69.2	67.7	55.4	49.1	36.5	North net
12/26/2009	<i>Caretta caretta</i>		UUB752/UUB753	61.6	62.9	68.0	67.1	53.6	50.6	37.9	North net
12/27/2009	<i>Chelonia mydas</i>			28.8	29.5	30.7	26.9	24.9	24.4	3.3	Dip net
12/27/2009	<i>Caretta caretta</i>	12	UUB742/UUB743	46.5	47.8	50.0	51.0	41.4	37.1	16.3	Dip net

Date	Species	Note	Tag #'s	SMCL (cm)	SSCL (cm)	CSCL (cm)	CMCW (cm)	SMCW (cm)	SMPL (cm)	Weight (kg)	Method
12/28/2009	<i>Chelonia mydas</i>	13		70.5	71.1	76.4	71.3	55.6	60.2	49.9	South net
12/28/2009	<i>Caretta caretta</i>	14		68.3	70.4	75.7	70.6	55.7	52.7	46.0	South net
12/29/2009	<i>Chelonia mydas</i>			30.8	31.1	32.2	28.3	25.8	25.5	3.7	Dip net
12/29/2009	<i>Chelonia mydas</i>			26.1	26.5	27.5	24.7	22.7	21.8	2.4	Dip net
12/29/2009	<i>Chelonia mydas</i>	15	UUB754/UUB755	54.0	54.4	58.5	50.6	42.1	45.1	22.7	South net
12/29/2009	<i>Caretta caretta</i>		UUB756/UUB757	65.2	66.3	72.0	67.8	56.5	50.9	40.6	Dip net
12/29/2009	<i>Chelonia mydas</i>	16	YYB008	63.9	64.3	67.7	57.8	49.7	53.4	33.5	South net
12/30/2009	<i>Caretta caretta</i>		UUB758/UUB759	62.8	64.1	70.6	68.7	56.4	50.3	43.3	North net
12/30/2009	<i>Caretta caretta</i>		UUB760/UUB761	49.0	50.5	54.8	52.3	41.7	38.8	17.7	North net
12/30/2009	<i>Caretta caretta</i>		UUB762/UUB763	54.8	56.0	61.8	60.9	49.0	44.0	25.9	North net
12/30/2009	<i>Caretta caretta</i>		UUB764/UUB765	55.0	55.9	61.9	62.0	49.0	44.5	29.2	South net

NOTES

1. 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, 9/8/07 and 3/3/09.
2. Recapture. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 7/28/09.
3. Recapture. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 6/15/03, 7/17/03, 11/26/03, 4/1/04, 5/14/05, 7/2/05, 7/23/05, 10/17/05, 5/10/06, 8/21/06, 9/25/06, 12/2/07, 3/15/08, 11/2/08, 2/14/09 and 6/23/09.
4. Recapture. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 8/7/03, 9/22/03, 8/20/04, 4/26/06 and 8/15/06.
5. Recapture. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 6/28/98, 10/12/98, 2/26/99, 5/11/99, 9/16/99, 12/13/99, 1/14/00, 1/24/00, 3/20/00, 4/17/00, 6/7/00, 9/15/00, 12/10/00, 8/9/01, 4/13/02, 1/11/03, 8/15/03, 10/2/03, 3/3/04, 5/23/04, 4/30/05, 5/29/05, 6/30/05, 10/5/05, 11/4/05, 2/2/06, 8/18/06, 9/17/08 and 12/10/08.
6. Recapture. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 3/1/04, 11/3/04, 11/21/04, 7/8/05, 8/12/05, 9/13/05, 4/24/06, 9/29/06, 11/19/06, 12/4/06, 12/9/07, 2/10/08, 4/3/08, 9/14/08, 11/26/08 and 12/18/08.
7. Recapture. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 8/20/09.
8. Recapture. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 12/8/01, 5/3/05, 5/9/05, 7/7/05, 5/16/06, 8/23/06, 9/12/06, 10/30/06, 4/26/07, 4/12/08, 8/5/08, 1/26/09 and 4/22/09.
9. Recapture. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 8/23/08, 9/17/08, 1/10/09 and 3/17/09.
10. Recapture. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 2/17/05, 5/15/07 and 8/4/08.
11. Recapture. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 10/31/03, 5/8/05, 6/18/05 and 4/18/06.
12. Recapture. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 12/21/09.
13. Turtle found with deep lacerations to both rear flippers caused by a shark attack. Bone is exposed on left rear flipper. Shark bites/rakings present on both carapace and plastron. Transported to Marinelife Center by IRG biologists. Not causal to power plant operation.
14. Turtle found with fresh cuts/scrapes on head exposing the skull due to entrainment through intake pipe. Transported to Marinelife Center by IRG biologists as a cautionary measure of a possible concussion or skull fracture. Causal to power plant operation.
15. Recapture. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 5/18/04 and 2/15/06.
16. Recapture. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 12/30/03, 10/6/04, 2/9/07, 5/24/07, 6/10/07 and 7/26/09.

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	
	Dec-09	Year to Date	Dec-09	Year to Date	Dec-09	Year to Date	Dec-09	Year to Date	Dec-09	Year to Date	Dec-09	Year to Date
Captures	24	260	24	161	0	2	0	1	0	0	48	424
Causal Mortalities	0	0	0	0	0	0	0	0	0	0	0	0
Non-causal Mortalities	0	1	0	1	0	0	0	0	0	0	0	2
Causal Injuries	0	1	1	2	0	0	0	0	0	0	1	3
Sent to rehab	1	14	0	5	0	0	0	0	0	0	1	19
Fresh Scrapes	Dec-09	Year to Date	Dec-09	Year to Date	Dec-09	Year to Date	Dec-09	Year to Date	Dec-09	Year to Date	Dec-09	Year to Date
None	2	26	3	11	0	0	0	0	0	0	5	37
Minor	18	170	17	103	0	1	0	0	0	0	35	274
Moderate	4	61	3	42	0	1	0	1	0	0	7	105
Severe	0	3	1	5	0	0	0	0	0	0	1	8
Percent with mod/sev scrapes	16.7%	24.6%	16.7%	29.2%	#DIV/0!	50.0%	#DIV/0!	100.0%	#DIV/0!	#DIV/0!	16.7%	26.7%