Green Sea Turtle Nesting Survey, Moloka'i, 2009 Participants

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2009 Green Sea Turtle Nesting Survey Kawa'aloa Bay, Moloka'i

This survey was done by a group of volunteers on behalf of Nature Conservancy of Hawaii Molokai, under direction of George Balazs of the National Marine Fisheries Service in Honolulu.

The 2009 Green Sea Turtle nesting survey was carried out from April 26 until November 15. From April 26 to May 23 the beach was checked two to three times a week. May 24 and forward observers walked the beach from East to West each morning, with the exception of 2 days in May, 1 day in June, 1 day in July, 4 days in August, 1 day in October and 4 days in November when volunteers were not available or access to the beach was not possible. May 26 all location markers were refreshed. The procedures for identifying and recording the excavations are those that were adopted in 2007, with the exception of using a tin can and metal detector. Recording & identifying the last excavations of each nesting trip on shore was done by using landmarks and measurements, gps waypoints, and a stick marking the center of the body pit.

Of the 66 trips on shore 30 produced excavations. Of these, 12 hatches were observed. As in 2007 & 2008 these nests were dug up at least 3 days after the last hatchling had been observed to emerge.

The contents of these nests were as follows:

	Nest	Successful Hatches	Undeveloped	Dead	Live	Total Eggs Laid	
Hatch 1	4	75	-			75	
Hatch 2	5A	55	14	1	2	70	
Hatch 3	6	70	1	4		75	
Hatch 4	9	84	1	3		88	
Hatch 5	11	54	2	9	2	65	
Hatch 6	12	66				66	
Hatch 7	16	56	5			61	
Hatch 8	20	63	3	5		71	
Hatch 9	19	72	3		1	75	
Hatch 10	23	51	12			63	
Hatch 11	25	70	3	8		81	
Hatch 12	28	67	3		5	70	
		783	47	30	10	860	

The 10 live hatchlings found in Nests 5A, 11, 19 & 28 were released to the ocean.

28 of the 30 dead hatchlings were found in their nests still partially in their shells. 1 dead from hatch 2 was found on the shoreline.

The 47 undeveloped eggs, and the 30 dead hatchlings were frozen and given to George Balazs.

Of the 36 false crawls made, 18 crawled high up onto the beach and 18 stayed below the tide line.

June 4, 9am to 10:30am observers watched a green sea turtle crawl from the ocean across the beach, up the side of a sand dune and return back to the ocean.

On her return trip to the ocean, pictures were taken for future identification and sent to George Balazs. The turtle had no tags.

Sept 16, evening, George Balazs found 2 female green sea turtles basking below high water at the western end of the beach. Both turtles had been tagged when nesting at the French Frigate Shoals in 2007.

Nesting activity was mainly East of the River.

Of the 30 nesting trips onshore, 7 were west of the River, 4 of those were at the most western part of the beach close to the base of the rock cliff face.

5 nesting excavations were washed over by high tides, no hatch was observed from these nests. 1 nest was completely washed out by high surf – 4 of those eggs were recovered from the ocean and given to George Balazs.

1 gps unit and the metal detector were returned to George Balazs.

2 Nesting trips were made onto the small sand beach immediately to the east of Kawa'aloa beach. The excavations were recorded and monitored but no hatches were observed.

No Monk Seal Activity was observed

Submitted by: Lil Macmillan

Date	Nest #	Мар	# of Pits	Est Hatch	Hatch Date	Days	Hatch #	Dig Date	Dig Count	spoiled/	Dead	Live	Successful	
		Location		(60 days)		Incubated				undeveloped			Hatches	
				, ,						-				
5/30/2009	1	Е	2	30-Jul										
06/03/09	2	K/L	1	2-Aug										
06/06/09	A5	I/J	1?	5-Aug	8/9	64	2	08/14/09	70	14	1	2	55	
06/07/09	3	H/I	1	6-Aug										
06/08/09	4	G	2	7-Aug	8/9	62	1	08/14/09	75				75	
06/16/09	5	M	1	15-Aug										
06/21/09	6	F	2	20-Aug	8/24	64	3	08/28/09	75	1	4		70	
06/21/09	7	I/J	2	20-Aug										
06/22/09	8	S	2	21-Aug										
07/01/09	9a	D/E	1?											
07/04/09	9	I	2	2-Sep	9/4	62	4	09/09/09	88	1	3		84	
07/07/09	10	S	2	5-Sep										
07/08/09	11	H/I	2	6-Sep	9/6	60	5	9/9/2009	65	2	9	2	54	
07/18/09	12	K	3	16-Sep	9/19	63	6	9/24/2009	66				66	
07/25/09	13	J	2?	23-Sep										
07/25/09	14	S	2	23-Sep										
07/26/09	15	M	3	24-Sep										
07/30/09	16	F	3	28-Sep	9/26	59	7	10/2/2009	61	5			56	
08/13/09	17	E/F	1	12-Oct										
08/13/09	18	G	1	12-Oct										
08/13/09	19	ı	1	12-Oct	10/14	63?	9	10/16/09	75	3		1	72	
08/13/09	20	I/J	3	12-Oct	10/13	61?	8	10/16/09	71	3	5		63	
08/13/09	21	Q/R	3	12-Oct										
08/13/09	22	S	1	12-Oct										
08/26/09	23	Н	1	24-Oct	10/27	62	10	11/01/09	63	12			51	
08/28/09	24	0	1	26-Oct										
08/29/09	25	0	1	27-Oct	10/28	60	11	11/01/09	81	3	8		70	
09/09/09	26	B/C	1	8-Nov										
09/09/09	27	J/K	1	8-Nov										
09/10/09	28	D/E	4	9-Nov	11/09	60	12	11/15/09	70	3		5	67	
totals	30								860	47	30	10	783	
	notes :													
	A5	wind had re	emoved all	signs of her a	ctivity other th	an in the dar	mp sand ne	ar the water - sa	ame track width	as 1 & 2, a pos	sible exc	avation	recorded	
	5	washed over												
	8	washed over	er by high ti	des										
	9a	unrecorded	l nest wash	ed out by hig	h tides - 4 egg	s recovered	from ocean							
	10	washed over	er by high ti	des										
	14	washed over	er by high ti	des										
	17 - 22													
	27	washed over												-
														-
-														