

Green Sea Turtle Nesting Survey, Moloka'i, 2006

Participants

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2006 Green Sea Turtle Nesting Survey Kawa'aloa Bay, Moloka'i

The 2006 Green Sea Turtle nesting survey was carried out from the morning of April 25 when the first turtle track of the season (from the night of April 24) appeared at Kawa'aloa Bay until November 27.

During this period, observers walked the beach from East to West each morning, with the exception of 7 days in October /November that access to the beach was not possible.

The year started with a beach walk, reviewing and where necessary setting up new landmarks as well as issuing each observer a map showing each location. This aided in overcoming the identification problems experienced in 2005, and recommend continuing this practice at the start of each season.

Of the 17 nesting trips onshore 6 hatches were observed. 2 previously hatched nests were found washing out by high surf, making a total of 8 confirmed hatches for 2006.

By direction of George Balaz of the National Marine Fisheries Service the nests were dug up 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	3	79	11	2	2	92
Hatch 3	8	77	4	1	0	82
Hatch 4	13	75	2	0	1	77
Hatch 5	16	77	3	0	0	80
Hatch 6	17	72	3	0	0	75

Hatch 2 – Nest 5 was not excavated, only 2 tracks were observed, a heavy rain had erased part of their tracks so the location of their emergence was not found and the pit had not been well enough identified to locate it.

The 3 live hatchlings found in Nests 3 & 13 were released to the ocean.

The 23 undeveloped eggs and 3 dead hatchlings recovered from these nests were frozen and given to George Balaz.

Of the 11 nesting trips that no hatch was observed, 2 were washed out by high surf exposing empty shells, and of the remaining 9 only 4 could be located accurately enough to excavate. Of those 4, no eggs were discovered.

Weather conditions affect the ability of observers to record a hatch, it is common for this area to have strong winds and there was more than one occasion that there was a heavy enough rainfall to erase any tracks that may have been there.

Excavating the nest near the time of their emergence has the benefit of aiding any straggler hatchling that would not make it out on their own as well as improving the data collection. To find the egg clutch, it is critical that the exit area is clearly identified. If left to the end of the season to excavate as done in the past, the landscape and markers may have changed enough to lose the location of the nest.

When comparing the track counts to the shell counts of the excavated nests, it is clear that track counts are not a reliable source to determine the number of hatchlings.

	Tracks	Actual Count
Hatch 1	18	77
Hatch 2	2	not excavated
Hatch 3	41	77
Hatch 4	50	74
Hatch 5	66	77
Hatch 6	15	72

It is to be noted that of the 32 false crawls made, 28 of these were below the high water line and were found at the Western end of the beach. The other 4 came in to the central and eastern portion of the beach, crawled higher up onto the beach and 1 of these turtles dug 2 very shallow pits.

The nesting activity was from the river east with the exception of two nests #2 & #5 dug just to the west of the river.

Dec 21/06 George Balaz accompanied by Bill Feeter and Lil Macmillan visited the nesting areas, excavated Nests 2 and 15 – no shells were found. George Balaz expressed the desire to meet with the 2007 turtle monitors at the start of the season.

Monk Seal Activity was observed on 6 occasions from late August to Early November. The two occasions that a Seal was observed the sightings were reported to PIFSC in Honolulu.

Submitted by Lil Macmillan.

Date	Nest #	Map Location	# of Pits	Est Hatch (60 days)	Hatch Date	Days Incubated	Hatch #	Track Count	Dig Date	Dig Count	Spoiled	Dead	Live	Successful Hatches
05/23/06	* 1	E/F	2	7/23										
06/08/06	*2	P	2	8/7										
06/09/06	3	I	4	8/8	Aug 4 & 5	56	1	16+2	08/08/06	92	11	2	2	79
06/23/06	* 4	D/E	4	8/22	?									
06/24/06	* 5	O	2	8/23	Sept 2	70	2	2	05/09/06	0				
07/08/06	6	G/H	1	9/6										
07/09/06	* 7	D/E	5	9/7	?									
07/10/06	8	I	1	9/8	Sept 10	62	3	39+2	09/15/06	82	4	1		77
07/23/06	9	G/H	2	9/21										
07/24/06	10	D/E	5	9/22										
07/25/06	11	B	3	9/23										
08/08/06	12	D/E	3	10/7										
08/08/06	* 13	K	2	10/7	Oct 7	60	4	50	10/11/06	77	2		1	75
08/26/06	*14	K	4	10/21										
09/05/06	*15	B	2	11/4										
09/06/06	16	M	2	11/5	Nov 6	61	5	66	11/09/06	80	3			77
09/20/06	*17	F	2	11/19	Nov 24	65	6	15	11/27/06	75	3			72

Notes ***

Nest #1 11/9/06 dug nest, found no eggs
Nest #2 12/21/06 dug nest, found no eggs - with George Balaz
Nest # 4 10/8/06 found 12 empty shells in sand bank being washed out by surf
Nest # 5 9/5/06 dug nest, no eggs - tracks must have come from #5 upper nest - not marked - hatch tracks erased by heavy rain
Nest # 7 9/27/06 found nest washing out, estimated to be 80 empty shells
Nest #13 10/7/06 track count is estimate only, tracks not counted
Nest #14 11/27/06 dug nest, found no eggs
Nest #15 12/21/06 dug nest, found no eggs - with George Balaz
Nest #17 11/24/06 unable to count tracks accurately, high tide waves came up very close to exit area