

2021 KAWA'ALOA GREEN SEA TURTLE MONITORING REPORT

for

THE NATURE CONSERVANCY, MOLOKAI, HAWAII

VOLUNTEERS:

- As the global pandemic continued throughout 2021, we managed to safely navigate an expanded volunteer group for monitoring the 2021 Green Sea Turtle Nesting season.
- We had the support of four volunteer monitoring teams.

MONITORING:

- With the exception of bad weather periods and poor road conditions, volunteers checked the beach in the morning hours, every other day, for most of the season.
- Following a report of possible nest activity on Kawa'aloa by the TNC staff, the first "official" monitoring trek took place on May 12, 2021.
- 2021 monitoring continued through October 20, 2021.
- 2021 monitoring was limited to Kawa'aloa.
- Kalani Point/Keonelele was not routinely monitored due to limited support and volunteer teams opting for access via the Mo'omomi Pavilion.

MARKERS

- Location markers were re-staked on May 12th and May 20, 2021.
- Marker ID's were refreshed in mid-August. Some markers pulled at end of season. Will re-stake in 2022.
- GPS points were also taken for each marker this season.
- Markers are utilized for identifying and recording the last excavation of each nesting trip on shore.

KAWA'ALOA BAY ACTIVITY SUMMARY:

- There were 71 Honu trips observed on shore by our volunteer teams.
- 56 false crawls/turnabouts and 15 nests tagged as excavations with egg deposits. (no #13 nest)
- Following review, nests #9, 10 & 11 were determined to be excavation attempts and not actual nests.
- Nesting and excavation patterns indicated the possibility of just two nesting sea turtles again this season.

HATCHES

- Nest #3 was the only nest observed as a successful hatch with a dozen of tracks.
An exit pattern was marked on 7/22/2021 and a dig was completed on 7/30/2021.
Findings included:
71 successful hatches, 4 undeveloped, with 4 dead. Four live hatchlings were released to sea.
- High winds and extreme high tides prevented clear evidence of #4 as a hatch. This nest was not dug.

CLIMATE CHANGE AND KING TIDES:

- Nests #2, 4, 5, 14, 15, and 16 were washed over by high seas and/or king tides.

SIGHTINGS

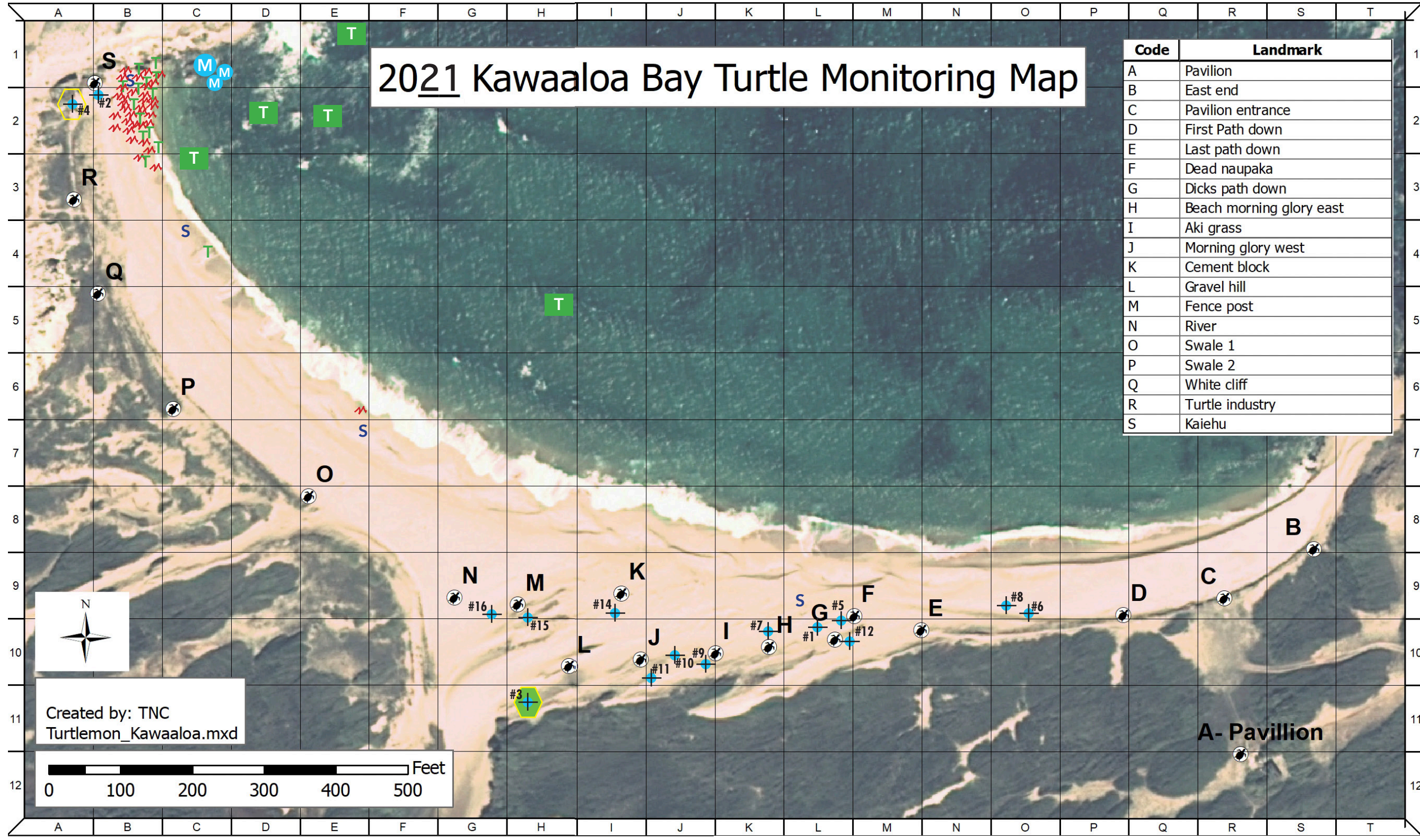
- Visual sightings included 3 occasions with resting seals and 13 occasions with basking sea turtles.
- On 8/20/2021 there were three Manta Rays observed at S marker. One adult and 2 babies.
- There were 4 reported sightings of Green Sea Turtles swimming along the west cliffs of Kawa'aloa.
- One sighting of a turtle swimming mid-point of Kawa'aloa.

Submitted by:

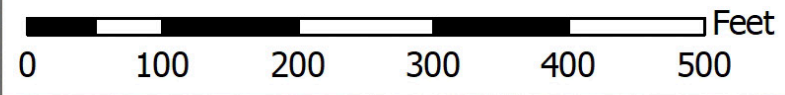
Nadine Powell, TNC Molokai Turtle Tracking Volunteer

2021 Kawaaloo Bay Turtle Monitoring Map

Code	Landmark
A	Pavilion
B	East end
C	Pavilion entrance
D	First Path down
E	Last path down
F	Dead naupaka
G	Dicks path down
H	Beach morning glory east
I	Aki grass
J	Morning glory west
K	Cement block
L	Gravel hill
M	Fence post
N	River
O	Swale 1
P	Swale 2
Q	White cliff
R	Turtle industry
S	Kaiehu



Created by: TNC
Turtlemon_Kawaaloo.mxd



- = #1-12 and 14-16 Nests. No #13
- = Possible Hatch NOT Verified with Dig
- = Successful Hatch with Dig
- = Turnabout
- = Turtle Sighting
- = Monk Seal Sighting
- = Manta Ray Sighting

Map provided by TNC

Markings prepared by
Nadine Powell, TNC Volunteer, 2021

2021 Kawa'aloa Green Sea Turtle Monitoring Data for The Nature Conservancy							
Date of Visit	NESTS	Notes	False Crawls	Turnarounds	Turtle Sightings	Seal Sightings	Other Sightings
5/12/2021		1st Kawa'aloa visit. Nadine began relabeling markers for the season. 2 resting honu at S and 2 additional turnabout tracks		2 @ S	2 @ S		
5/13/2021		No new activity					
5/19/2021	#1 located 50' west of G #2 east of S	1 excavation marked for first nest of season 2 excavations marked for nest #2a & 2b 3 resting honu at S and 3 turnabouts at S		3 @ S	3 @ S		
5/20/2021	#3 east of M in grass	1 excavation. Ron completed remainder of new markers for the season.					
5/23/2021		1 monk seal sighting at "O" and 2 turnabouts at S		2 @ S		1 @ O	
5/26/2021		No new activity					
5/27/2021		No new activity					
5/28/2021		1 turnabout visual between S & R		1 between S&R			
5/31/2021		No new activity					
6/1/2021		1 honu sighting at S and 2 additional turnabout imprints		2 @ S	1 @ S		
6/2/2021		No new activity					
6/3/2021	#4 @ S west of stream bed	1 new excavation marked as nest #4 at S marker					
6/4/2021	#5 between F&G	2 new excavations between F & G. Our #5 nest for the season.					
6/8/2021		1 honu sighting at S and 3 additional turnabout imprints		3 @ S	1 @ S		
6/9/2021		No new activity					
6/10/2021		No new activity					
6/16/2021	#6 between D&E	1 excavation					
6/18/2021	#7 30' west of #1 & 60' NW of H	Staked nest #7. Sighted a monk seal and several basking tracks at S		3 @ S		1 @ S	
6/21/2021	#8 between E&D	Staked nest #8. Sighted 3 honu @ S + tracks up steam at S, shallow dig attempt at ridge going back to sea	1 @ S		3 @ S		
6/23/2021		No new nests, 3 basking tracks at S		3 @ S			
6/25/2021		No new activity					
6/29/2021		1 turnaround between R		1 near R			
6/30/2021		3 turnarounds at S		3 @ S			
7/2/2021		2 turnarounds at S		2 @ S			
7/14/2021		No new activity					
7/16/2021	#9, #10, #11 marked by newest team	After further evaluation, these were false crawls and not actual nests.	1 @ Q				
7/18/2021		No new activity					
7/21/2021	#12 20' SE of F marker	New nest 20 ft SE of F marker, near seagrass ridge Ron reported possible exit for #3					
7/22/2021		Observed massive EXIT on #3 + 3 turnarounds at S		3 @ S			
7/23/2021		3 turnabout tracks at S and possible hatch of #4? + false crawl at beach before Kawa'aloa, no nest digs	false crawl beach east of Kawa'aloa	3 @ S			
7/25/2021		2 turnabouts @ S		2 @ S			

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7/27/2021		1 turnaround between S. Possible hatch marked at #4		1 @ S			
7/28/2021		No new activity.					
7/30/2021	DIG on #3	DIG with 71 hatches, 4 underdeveloped, 4 dead and 4 live.					
8/2/2021		No activity					
8/4/2021		2 turnarounds at S		2 @ S			
8/6/2021		No activity. Windy.					
8/8/2021	#14 our newest team marked 14 a-e 100-150 west of marker K (14a is near #1 furthest east)	5 excavations attempts all were marked as nests by our newest team. We verified and watched #14a and 14e throughout the season. No confirmed exit.	1 @ K				
8/11/2021	#15 east of stream near M #16a & 16b east of stream near M	2 new nests staked. #15 & 16.					
8/13/2021		No activity.					
8/15/2021		Rain. Aborted trip.					
8/18/2021		No activity.					
8/20/2021		No activity. Manta Ray and 2 babies sighting.					3 Manta Rays
8/21/2021		Remarked #14 group. Turnabout at S.		1 @ S			
8/22/2021		No nest activity. One resting honu sighting. 3 sets of turnabouts at S.		3 @ S	1 @ S		
8/25/2021		No activity.					
8/27/2021		No activity.					
8/30/2021		No activity.					
9/1/2021		No new nest activity.	1 @ G				
9/3/2021		No new turtle nesting. One resting turtle near S			1 @ S		
9/6/2021		No new activity.					
9/8/2021		No new nest activity.					
9/10/2021		No new activity.					
9/12/2021		No new activity. Resting turtle at S.			1 @ S		
9/15/2021		No new activity. Picked up plastics.					
9/17/2021		Aborted trip due to rain.					
9/20/2021		No hatch.					
9/22/2021		No hatch activity.					
9/24/2021		Aborted trip. Wet roads.					
9/26/2021		High winds and seas. #14, 15 & 16 showed signs of high tide interference.					
9/29/2021		No new activity.					
10/1/2021		No new activity.					
10/4/2021		No new activity. High winds. No visible exits.					
10/6/2021		2 honu resting west end of beach @ S			2 @ S		
10/8/2021		No new activity. High winds. No visible exits.					
10/13/2021		1 honu resting near S			1 @ S		

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10/15/2021		No activity.					
10/20/2021		1 monk seal sighting nestled up against log between H & G				1 between H & G	