

1 November 2022

Kennard Watson, Director
Panama City Beach Turtle Watch, Inc.
6509 Palm Court
Panama City Beach, Florida 32408

Dan Rowe, Executive Director
Bay County Tourist Development Council
17001 Panama City Beach Parkway
Panama City Beach, Florida 32417

Dear Mr. Rowe:

This letter provides results for the 2022 sea turtle nesting season on Panama City Beach. The information is submitted by Panama City Beach Turtle Watch, Inc. (aka Turtle Watch) to fulfill requirements of our contract with the Bay County Tourist Development Council. Season highlights include:

- Exceptional loggerhead hatchling production with 3175 turtles from 42 nests, representing the second highest annual total since monitoring began on our beach over three decades ago. Two green turtle nests produced an additional 131 hatchlings.
- Severe effects from beachfront lighting disorienting 79% of hatchlings emerging at night, the highest disorientation percentage since 2013 when countywide lighting ordinances went into effect.
- Improved Leave No Trace ordinance within the City limits where vendor chairs were stacked nightly at base of dune, eliminating obstruction incidents with nesting turtles. No improvement observed on County beaches where vendor equipment left on the beach at night continued to impact nesting turtles.
- Over 3000 people attended our public nest excavations, many of which were also streamed on social media.
- Excellent seabird nesting season with 120 least tern nests producing 60+ chicks at Laguna Beach and Sunnyside Beach. These sites were among the most productive in northwest Florida this year.

Major results are summarized below. Additional reports have been submitted to the Florida Fish and Wildlife Conservation Commission (FWC) to fulfill requirements of our State Permits 038 and 271. These documents are available upon request.

Survey Area and Nourishment Activities. Turtle Watch monitors sea turtle activity along 17.5 miles of Gulf beach between St. Andrews State Park and Camp Helen State Park. Portions of the survey area were nourished in 2021-22 with sand pumped onto the beach from an offshore source. Figure 1 is a map of the survey area showing two construction segments totaling about 13 miles along with Florida Department of Environmental Protection Reference Monuments (R-markers). Sand pumping was performed on the western segment (R-1 to R-41) during 15 September 2021 to 13 February 2022 and the eastern segment (R-62 to R-92) during 22 October 2021 to 16 April 2022. The eastern segment was tilled while the western segment was left untilled as part of a joint research project by the U.S. Fish and Wildlife Service and U.S. Geological Survey.

Nest Identification and Relocation. Morning surveys to identify fresh sea turtle crawls were performed from May 1 to September 15. The surveys were done on all-terrain vehicles, and nests were identified solely from the physical evidence left in the sand by the nesting turtle (body pit and sand mound created by flippers). Beginning on September 16 and continuing through October 23, surveys were limited to checks of existing nests which were monitored daily until they hatched and/or were excavated. Regarding nest relocation, nests found in the nourishment project area, including the reference area (Figure 1), were required to remain in place unless laid next to a storm drain, in which case they could be moved to a safer spot nearby.

Nesting and Hatchling Production. We found 44 nests and 28 non-nesting emergences (false crawls) during 2022, reversing a declining nesting trend on Panama City Beach since 2016. Of the 44 nests, 42 were made by threatened loggerheads and 2 by threatened green turtles. Of the 28 false crawls, 27 were made by loggerheads and one by a green turtle. Locations of nests and false crawls are shown in Figure 2, a map of the survey area with each column of symbols representing activity on a 0.5-mile section of beach (35 sections). Tables 1-4 provide detailed information

on each nest and false crawl, including the location, date found, date hatched, and nest excavation results. Additional findings are as follows:

- Combined loggerhead hatchling production was 3175 hatchlings from 3865 eggs for an overall emergence success of 82% (38 evaluated nests, Figure 3).
- Average loggerhead nest size was 104 eggs (range 70-147, 36 nests, excluding wash-outs) and average incubation period was 63 days (range 58-69, 34 nests, Figure 4).
- Two green nests produced 131 hatchlings from 270 eggs (49%) with incubation of 65 and 67 days.
- All nests were left in situ. One was completely washed out by storm drain runoff from heavy rains, and two were partially washed out by high surf with salvaged eggs reburied at a higher spot nearby. Nine nests were flooded by surf, 3 of which failed to hatch.
- One nesting loggerhead was tagged during nighttime beach cleaning operations. A metal tag was applied to the right front flipper of the turtle which carried other pre-existing tags originally applied by Mote Marine Laboratory when the turtle nested in 2014 at Casey Key in southwest Florida.
- One loggerhead nest was missed by the morning surveys and found by beach walkers. Three false crawls were mis-identified as nests based on results of excavation attempts when these sites failed to hatch (no eggs found).
- Public was invited to 35 nest excavations performed after hatching. In addition to 3220 people who attended in person, many more joined virtually at several events streamed live on our Facebook page.

Beachfront Lighting Affecting Nesting and Hatchling Turtles. Artificial lights from beachfront development continue to pose a serious threat to sea turtles on our urban beach, causing substantial numbers of hatchlings to become disoriented when emerging from nests at night. We submitted disorientation data to FWC's online system and provided a separate summary report with more on this subject, including procedures to monitor nests and estimate lighting effects on nesting and hatchling turtles. Key results are as follows:

- Lights disoriented 2237 of 2828 hatchlings or 79% of those emerging at night from 30 nests, the highest disorientation percentage since 2013 when Bay County's lighting ordinances went into effect.
- Condo lights (interior and exterior), parking lot lights, and urban glow were the largest contributors to hatchling disorientation (Figure 5).
- Adult loggerheads were disoriented at one nest and one false crawl.
- FWC imposed new, more stringent conditions for nighttime monitoring, including restrictions on the number of personnel authorized to perform night checks and additional reporting requirements.

Beach Furniture Affecting Nesting Turtles. Significant improvements were observed within the City limits in 2022, thanks to an updated Leave No Trace (LNT) ordinance requiring nightly storage of vendor chairs at the base of the dune. Consequently, none of the 7 obstructed nesting incidents shown in Table 5 occurred on the municipal beach. All were documented in the unincorporated east and west ends of the survey area, where the County LNT ordinance continues to allow vendor chairs on the beach at night during the nesting season. Turtles were obstructed mainly by vendor-owned lounge chairs, often in tightly spaced rows near the shoreline (Figure 6).

Stranding Incidents. Twenty (20) turtles stranded within the survey area between May and October (Table 6). They consisted of 14 loggerheads, 5 Kemp's ridleys, and one green turtle. Eleven were found dead on the beach or in the water. The beach cleaning contractor, Coastal Parasail, removed dead turtles from the beach as part of their beach cleaning duties. Gulf World Marine Institute (GWMI) responded to 9 injured turtles found in the surf, some accidentally hooked by recreational fishermen at the Gulf piers. These turtles were taken to GWMI for treatment. While stranding activity was higher than normal, this is due partly to better reporting of turtles caught by fishermen, thanks to educational efforts by GWMI and Turtle Watch.

Seabird and Shorebird Nesting. Panama City Beach was among the most productive seabird nesting areas in the Florida panhandle in 2022. Turtle Watch surveyors coordinated with FWC personnel who surveyed Panama City Beach for seabirds such as least terns and black skimmers which nest in colonies, and shorebirds such as snowy plovers which are non-colonial. FWC posted three locations within the survey area at Bid-a-Wee Beach, Laguna Beach, and Pier Park to protect nesting least terns and black skimmers. The Laguna Beach and Sunnyside colonies had approximately 120 least tern nests and fledged at least 60 chicks (Figure 7). In addition, the Laguna Beach colony had one black skimmer nest which fledged two chicks. The third colony just west of the City Pier had 15

least tern nests. All nests at this colony failed before hatching following disturbance from people and fireworks associated with the July 4 holiday. Generally, the greatest impacts to the colonies this year included disturbance from people and fireworks including several instances of people walking through the posted colonies, vehicle impacts, and dogs on the beach. Overall, least tern nesting was very successful this year, with Panama City Beach joining Fort Pickens – Gulf Islands National Seashore and Santa Rosa Island (Eglin AFB) as some of the most productive nesting sites in the panhandle.

Beach Cleaning Coordination. Turtle Watch surveyors notified Coastal Parasail each morning when surveys were done and nests marked so that beach cleaning could begin. Additionally, Turtle Watch provided Wildlife Observers as part of nighttime enforcement of the LNT ordinances performed nightly between May 10 and September 18, removing tents and other personal gear covered by the ordinances. Pandemic protocols (masking, physical distancing) were fully relaxed this season, allowing crews to accompany the Wildlife Observer who drove a gator (mule) while watching for nesting and hatchling turtles and other wildlife, including birds. The vehicle stopped, lights were turned off, and crews were advised to halt operations when turtles were observed. Crews received training from Turtle Watch representatives on nighttime operations to minimize impacts on beach wildlife.

If you have questions, please contact me during business hours at (850) 238-9895 or at pcbturtle@yahoo.com. Thanks.

Sincerely,

Kennard Watson

Kennard Watson
Turtle Watch Director

cc: Robbin Trindell (FWC Tallahassee), Meghan Koperski (FWC Tequesta), Beth Mongiovi (FWRI St Petersburg), Nick Vitale (FWC Panama City), Patty Kelly (FWS Panama City), Margaret Lamont (USGS Gainesville), Justin Lashley (COE Mobile), Lisa Armbruster (Sustainable Beaches), Lauren Albrittain (GWMI), Timothy Justice (Bay County Code Enforcement), Lanie Smith (PCB Code Enforcement), Mel Leonard (Panama City Beach), Drew Whitman (Panama City Beach)



Figure 1. Survey area showing two beach sections nourished in 2021-2022.



Figure 2. Sea turtle nest and false crawl locations on Panama City Beach in 2022. Each column of symbols represents crawls on ½-mile beach segment (blue circles nests, yellow circles false crawls).

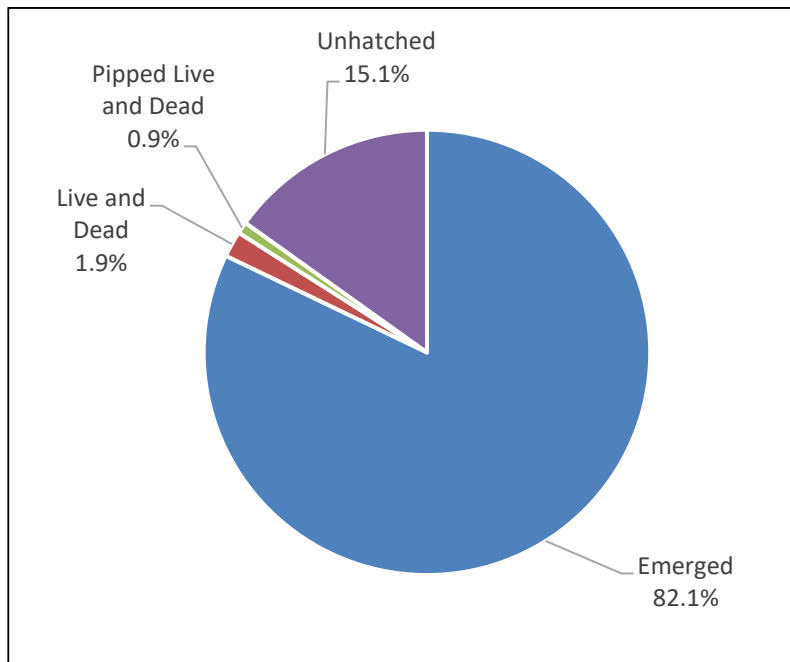


Figure 3. Emergence success for loggerhead nests on Panama City Beach in 2022 (38 in situ nests). Contents are unhatched eggs, live and dead hatchlings found in nest, pipped eggs where hatchling partially broke free of shell, and emerged hatchlings that escaped the nest.

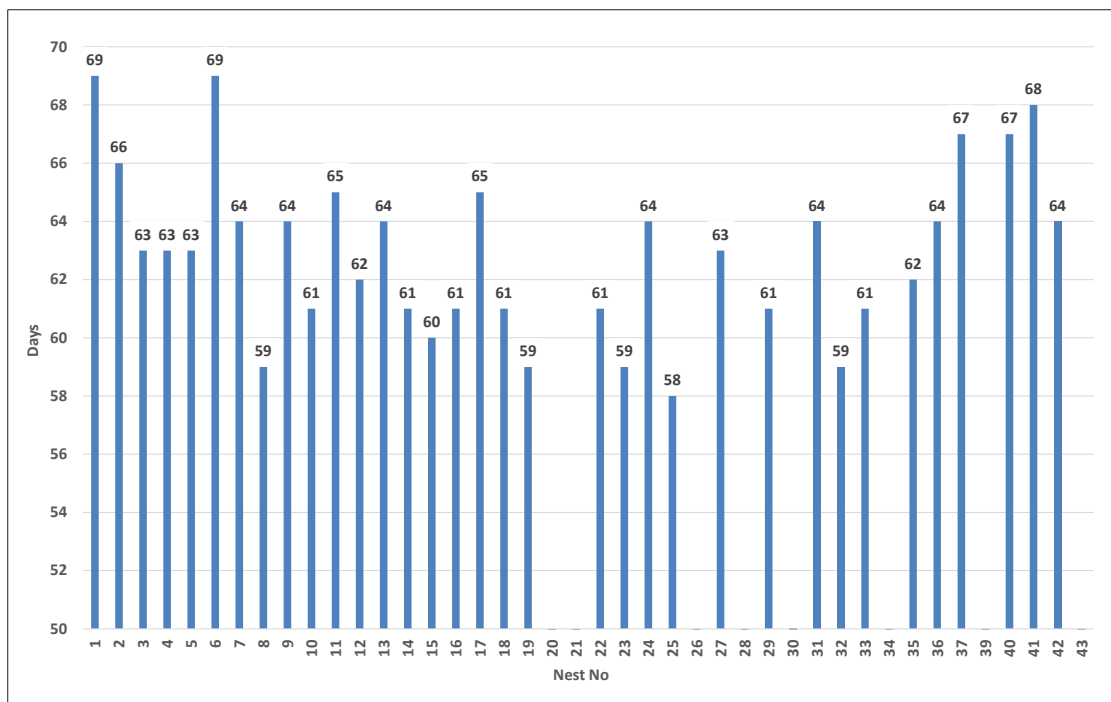


Figure 4. Loggerhead incubation periods on Panama City Beach in 2022 (34 nests). Blanks indicate nests that failed to hatch or had unknown incubation periods.

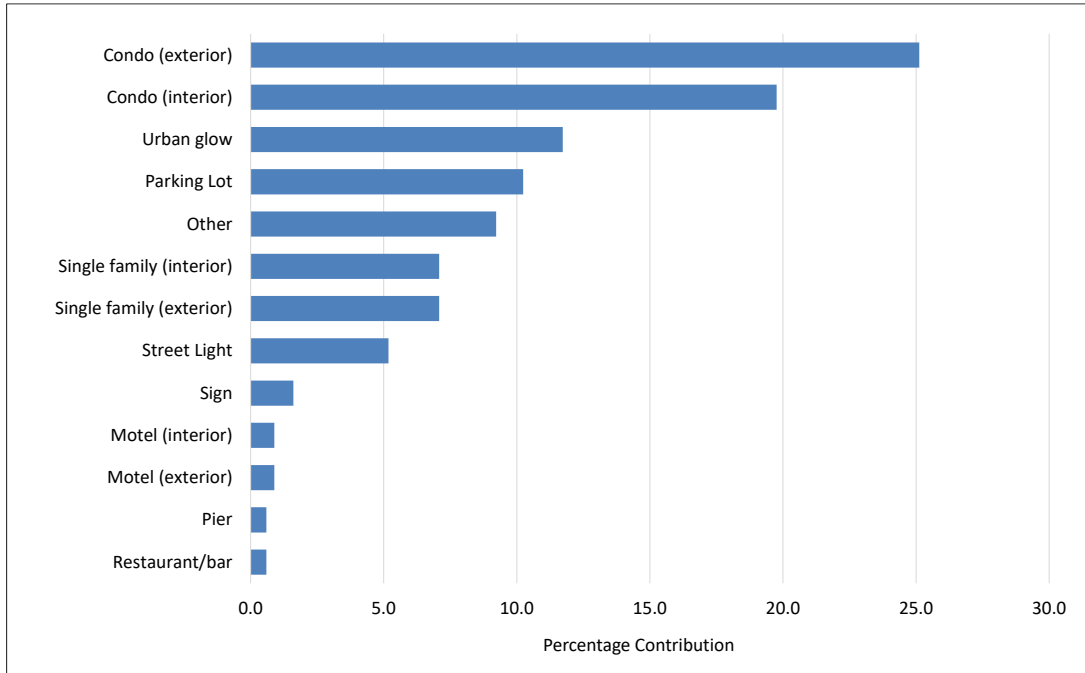


Figure 5. Lights contributing to hatchling disorientation incidents on Panama City Beach in 2022 (28 loggerhead nests).

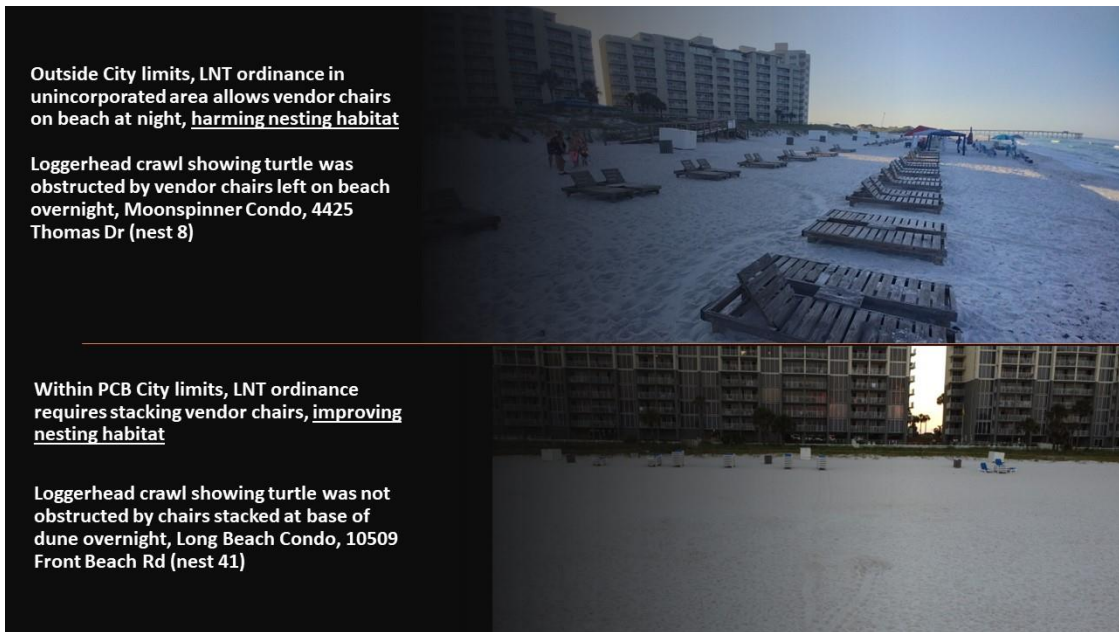


Figure 6. Vendor chairs left on beach overnight impeded nesting turtles on County beaches (top picture) but not City beaches (bottom picture) due to improved Leave No Trace ordinance requiring vendor chairs to be stacked at base of dune nightly within City limits in 2022.



Figure 7. Least tern and black skimmer nesting sites at Laguna Beach and Sunnyside Beach in 2022. These locations were among the most productive tern nesting sites in northwest Florida.

Table 1. Sea turtle nest locations and hatching information on Panama City Beach in 2022.
Cc loggerhead, Cm green, UNK unknown

Nest No	Species	Address	In Situ or Relocated	Date Laid	Date Hatched	Incubation (days)	Total Eggs	Turtles Emerged	Latitude	Longitude
1	Cc	Laguna Beach Christian Retreat, 20225 Front Beach Rd	In situ	22-May	29-Jul	69	106	101	30.243716	-85.935793
2	Cc	House, 9618 Beach Blvd	In situ	23-May	27-Jul	66	147	141	30.172269	-85.801568
3	Cc	Pinnacle Port Condo, 23223 Front Beach Rd	In situ	25-May	26-Jul	63	100	95	30.265205	-85.986686
4	Cc	Latitude 29 Condo, 21703 Front Beach Rd	In situ	27-May	29-Jul	63	105	102	30.253006	-85.956047
5	Cc	Long Beach Resort, 10509 Front Beach Rd	In situ	30-May	31-Jul	63	96	81	30.175723	-85.807766
6	Cc	Boardwalk Beach Hotel and Convention Center, 9600 S Thomas Dr	In situ	31-May	7-Aug	69	100	73	30.171946	-85.801050
7	Cc	Townhouse, 17135 Front Beach Rd	In situ	31-May	2-Aug	64	118	61	30.221724	-85.890468
8	Cc	Moonspinner Condo, 4425 Thomas Dr	In situ	3-Jun	31-Jul	59	84	80	30.134189	-85.746707
9	Cc	Seachase Condo, 17351 Front Beach Rd	In situ	4-Jun	6-Aug	64	105	89	30.225776	-85.898556
10	Cc	Moondrifter Condo, 8815 Thomas Dr	In situ	4-Jun	3-Aug	61	118	108	30.169347	-85.796596
11	Cc	Ramsgate Condo, 23011 Front Beach Rd	In situ	4-Jun	7-Aug	65	92	87	30.259819	-85.973729
12	Cc	The Shores Condo, 22519 Front Beach Rd	In situ	5-Jun	6-Aug	62	96	90	30.257774	-85.968595
13	Cc	House, 20804 Front Beach Rd	In situ	10-Jun	12-Aug	64	116	110	30.247371	-85.944053
14	Cc	Sugar Sands Motel, 20723 Front Beach Rd	In situ	11-Jun	10-Aug	61	118	113	30.246823	-85.942913
15	Cc	Russell-Fields City Pier, 16201 Front Beach Rd	In situ	12-Jun	10-Aug	60	119	112	30.214537	-85.877106

16	Cc	Ramsgate Condo, 23011 Front Beach Rd	In situ	17-Jun	16-Aug	61	89	79	30.260364	-85.975023
17	Cc	House, 21619 Front Beach Rd	In situ	18-Jun	21-Aug	65	100	95	30.252377	-85.954704
18	Cc	House, 22339 Front Beach Rd	In situ	18-Jun	18-Aug	61	110	100	30.256683	-85.965850
19	Cc	Continental Condo, 15413 Front Beach Rd	In situ	19-Jun	16-Aug	59	83	75	30.210217	-85.868532
20	Cc	M.B. Miller County Pier, 12213 Front Beach Rd	In situ	23-Jun	UNK	UNK	0	0	30.189645	-85.832230
21	Cc	Sugar Sands Motel, 20723 Front Beach Rd	In situ	24-Jun	UNK	UNK	0	0	30.246757	-85.942895
22	Cc	Ramsgate Condo, 23011 Front Beach Rd	In situ	25-Jun	24-Aug	61	105	102	30.260546	-85.975292
23	Cc	Summerwinds Condo, 6323 Thomas Dr	In situ	27-Jun	24-Aug	59	128	105	30.150356	-85.767833
24	Cc	Townhouse, 19108 Front Beach Rd	In situ	30-Jun	1-Sep	64	105	103	30.236841	-85.920942
25	Cc	Ocean Reef Condo, 14415 Front Beach Rd	In situ	2-Jul	28-Aug	58	136	115	30.203098	-85.855428
26	Cc	House, 19987 Front Beach Rd	In situ	2-Jul	UNK	UNK	0	0	30.242271	-85.933157
27	Cc	Shoreline Villas, 23007 Front Beach Rd	In situ	3-Jul	3-Sep	63	114	109	30.259579	-85.973135
28	Cc	Panama City Resort and Club, 16709 Front Beach Rd	In situ	4-Jul	UNK	UNK	0	0	30.219385	-85.885741
29	Cc	Bel Air Beach Condo, 8511 Surf Dr	In situ	4-Jul	3-Sep	61	81	80	30.164410	-85.788316
30	Cc	House, 13209 Oleander Dr	In situ	5-Jul	UNK	UNK	29	2	30.196446	-85.843576
31	Cc	Polynesian Village Condo, 16621 Front Beach Rd	In situ	6-Jul	7-Sep	64	124	122	30.218227	-85.883852
32	Cc	Townhouse, 5922 Gulf Dr	In situ	6-Jul	3-Sep	59	80	66	30.147308	-85.763640
33	Cc	Treasure Island Resort, 5004 Thomas Dr	In situ	7-Jul	5-Sep	61	135	106	30.139306	-85.753363
34	Cc	House, 22115 Front Beach Rd	In situ	9-Jul	UNK	UNK	101	0	30.255122	-85.962322
35	Cc	Pinnacle Port Condo, 23223 Front Beach Rd	In situ	10-Jul	10-Sep	62	70	61	30.265250	-85.986927

36	Cc	Townhouse, 19304 Front Beach Rd	In situ	10-Jul	11-Sep	64	96	52	30.237682	-85.922888
37	Cc	House, 21809 Front Beach Rd	In situ	10-Jul	14-Sep	67	107	97	30.253297	-85.957653
38	Cm	Townhouse, 17807 Front Beach Rd	In situ	11-Jul	13-Sep	65	130	5	30.233621	-85.913881
39	Cc	House, 13001 Oleander Dr	In situ	UNK	UNK	UNK	74	0	30.194810	-85.840660
40	Cc	Bonita Beach Condo, 17921 Front Beach Rd	In situ	21-Jul	25-Sep	67	103	91	30.235243	-85.917613
41	Cc	Long Beach Resort, 10509 Front Beach Rd	In situ	24-Jul	30-Sep	68	82	70	30.176204	-85.808390
42	Cc	Mariner East Condo, 6211 Thomas Dr	In situ	26-Jul	27-Sep	64	109	102	30.149491	-85.765974
43	Cc	Townhouse, 22811 Front Beach Rd	In situ	29-Jul	UNK	UNK	84	0	30.258909	-85.971570
44	Cm	House, 16407 Front Beach Rd	In situ	14-Aug	20-Oct	67	140	126	30.216912	-85.880309

Table 2. Sea turtle false crawl locations and crawl dates on Panama City Beach in 2022.
Cc loggerhead, Cm green

Crawl No	Species	Address	Crawl Date	Latitude	Longitude
1	Cc	Moonspinner Condo, 4425 Thomas Dr	23-May	30.13440	-85.74725
2	Cc	Days Inn, 12818 Front Beach Rd	24-May	30.19352	-85.83829
3	Cc	Springhill Suites by Marriott, 12513 Front Beach Rd	24-May	30.19106	-85.83398
4	Cc	House, 16429 Front Beach Rd	24-May	30.21715	-85.88197
5	Cc	House, 14114 Front Beach Rd	24-May	30.20148	-85.85241
6	Cc	Gulf Crest Condo, 8715 Surf Dr	27-May	30.16586	-85.79074
7	Cc	Ambassador Beach Condo, 15617 Front Beach Rd	31-May	30.21118	-85.87049
8	Cc	Ocean Reef Condo, 14415 Front Beach Rd	2-Jun	30.20325	-85.85577
9	Cc	Grandview Condo, 10713 Front Beach Rd	2-Jun	30.17891	-85.81295
10	Cc	Calypso Resort, 15817 Front Beach Rd	2-Jun	30.21328	-85.87462
11	Cc	Dunes of Panama Condo, 7205 Thomas Dr	3-Jun	30.15682	-85.77676
12	Cc	Pirates Cove Villas, 23001 Front Beach Rd	4-Jun	30.25918	-85.97215
13	Cc	Lollye on the Beach Motel, 8501 Surf Dr	10-Jun	30.16399	-85.78779
14	Cc	Pirates Cove Villas, 23001 Front Beach Rd	10-Jun	30.25909	-85.97207
15	Cc	House, 13700 Front Beach Rd	13-Jun	30.19945	-85.84873
16	Cc	House, 384 Beachside Dr, Carillon Beach	13-Jun	30.26162	-85.97781
17	Cc	Boardwalk Beach Resort, 9450 South Thomas Dr	15-Jun	30.16994	-85.79796
18	Cc	Sterling Breeze Condo, 16701 Front Beach Rd	18-Jun	30.21896	-85.88483
19	Cc	Landmark Condo, 17501 Front Beach Rd	19-Jun	30.22821	-85.90362
20	Cm	Sunset Inn, 8109 Surf Dr	19-Jun	30.16178	-85.78405
21	Cc	Calypso Resort, 15817 Front Beach Rd	23-Jun	30.21377	-85.87549
22	Cc	House, 19907 Front Beach Rd	29-Jun	30.24065	-85.92956
23	Cc	Lollye on the Beach Motel, 8501 Surf Dr	6-Jul	30.16402	-85.78769
24	Cc	House, 21515 Front Beach Rd	10-Jul	30.25178	-85.95399
25	Cc	House, 22021 Front Beach Rd	10-Jul	30.25474	-85.96101
26	Cc	Schooners, 5121 Gulf Dr	15-Jul	30.14063	-85.75515
27	Cc	Top of Gulf Condo, 8817 Thomas Dr	23-Jul	30.16908	-85.79647
28	Cc	Sunnyside Beach Resort, 22400 Front Beach Rd	29-Jul	30.25581	-85.96405

Table 3. Loggerhead nest excavation data on Panama City Beach in 2022 (38 nests). Contents are unhatched eggs, live and dead hatchlings found in nest, pipped eggs where hatchling partially broke free of shell, and emerged hatchlings that escaped the nest. **Red indicates nests partially washed out.**

Nest No	Eggs	Turtles Emerged	Live in Nest	Dead in Nest	Pipped Live	Pipped Dead	Unhatch	Emergence Success	In Situ or Relocated
1	106	101	2	0	0	0	3	0.95	In situ
2	147	141	1	0	0	0	5	0.96	In situ
3	100	95	1	0	0	0	4	0.00	In situ
4	105	102	0	0	0	0	3	0.00	In situ
5	96	81	1	0	0	0	14	0.84	In situ
6	100	73	5	0	1	0	21	0.00	In situ
7	118	61	0	0	0	2	55	0.52	In situ
8	84	80	0	0	0	0	4	0.95	In situ
9	105	89	0	0	0	0	16	0.00	In situ
10	118	108	1	0	0	1	8	0.00	In situ
11	92	87	0	0	0	0	5	0.95	In situ
12	96	90	1	0	0	0	5	0.94	In situ
13	116	110	0	0	0	0	6	0.95	In situ
14	118	113	2	0	0	0	3	0.96	In situ
15	119	112	0	0	0	0	7	0.94	In situ
16	89	79	0	1	0	0	9	0.89	In situ
17	100	95	1	0	0	0	4	0.95	In situ
18	110	100	0	1	0	0	9	0.91	In situ
19	83	75	0	0	0	0	8	0.90	In situ
23	128	105	0	0	0	0	23	0.82	In situ
24	105	103	0	0	0	0	2	0.98	In situ
25	136	115	3	1	0	0	17	0.85	In situ
27	114	109	0	0	0	0	5	0.96	In situ
29	81	80	0	0	0	0	1	0.99	In situ
30	29	2	0	0	0	26	1	0.07	In situ
31	124	122	0	0	0	0	2	0.98	In situ
32	80	66	1	0	0	0	13	0.83	In situ
33	135	106	1	0	0	0	28	0.79	In situ
34	101	0	0	2	0	2	97	0.00	In situ
35	70	61	0	0	0	0	9	0.87	In situ
36	96	52	0	41	0	0	3	0.54	In situ
37	107	97	0	0	0	0	10	0.91	In situ
39	74	0	0	0	0	0	74	0.00	In situ
40	103	91	6	0	1	0	5	0.88	In situ
41	82	70	1	0	0	0	11	0.85	In situ
42	109	102	0	0	0	0	7	0.94	In situ
43	84	0	0	0	0	0	84	0.00	In situ
TOTAL	3865	3175	27	46	2	31	584	0.82	

Table 4. Green turtle nest excavation data on Panama City Beach in 2022 (2 nests). Contents are unhatched eggs, live and dead hatchlings found in nest, pipped eggs where hatchling partially broke free of shell, and emerged hatchlings that escaped the nest.

Nest No	Eggs	Turtles Emerged	Live in Nest	Dead in Nest	Pipped Live	Pipped Dead	Unhatch	Emergence Success	In Situ or Relocated
38	130	5	0	23	0	1	101	0.04	In situ
44	140	126	2	2	0	0	10	0.90	In situ
TOTAL	270	131	2	25	0	1	111	0.49	

Table 5. Obstacles encountered by sea turtles during nesting attempts on Panama City Beach in 2022. Cc loggerhead, Cm green.

Crawl No	Species	Crawl Type	Address	Latitude	Longitude	Incident Date	Obstacles Encountered
4	Cc	Nest	Latitude 29 Condo, 21703 Front Beach Rd	30.253006	-85.956047	27-May	dune crossover
8	Cc	Nest	Moonspinner Condo, 4425 Thomas Dr	30.134189	-85.746707	3-Jun	vendor chairs
33	Cc	Nest	Treasure Island Resort, 5004 Thomas Dr	30.139306	-85.753363	6-Jul	vendor chairs, vendor box
42	Cc	Nest	Mariner East Condo, 6211 Thomas Dr	30.149491	-85.765974	26-Jul	volleyball net posts
43	Cc	Nest	Townhouse, 22811 Front Beach Rd	30.258909	-85.97157	29-Jul	beach chair, hole 7 ft wide
1	Cc	False Crawl	Moonspinner Condo, 4425 Thomas Dr	30.1344	-85.74725	23-May	vendor chairs
20	Cm	False Crawl	Sunset Inn, 8109 Surf Dr	30.16178	-85.78405	19-Jun	vendor chairs

Table 6. Sea turtle strandings on Panama City Beach from May to October 2022.
 GWMI Gulf World Marine Institute, NMFS National Marine Fisheries Service,
 Cc loggerhead, Cm green, Lk Kemp's ridley, UNK unknown.

No.	Date	Location	Latitude	Longitude	Species	Shell Length (cm)	Final Disposition
1	1-May	Russell-Fields City Pier, 16201 Front Beach Rd	30.21287	-85.87897	Cc	69.2	Alive, taken to GWMI
2	2-May	SpringHill Suites, 12513 Front Beach Rd	30.19134	-85.83429	Cc	72.1	Dead, buried off beach
3	7-May	House, 13309 Oleander Dr	30.19715	-85.84454	Lk	54.2	Dead, buried off beach
4	7-May	Edgewater Beach Resort, 11212 Front Beach Rd	30.18404	-85.82161	Lk	30.3	Dead, buried off beach
5	13-May	House, 17489 Front Beach Rd	30.22784	-85.90277	Cc	67.3	Dead, buried off beach
6	17-May	Russell-Fields City Pier, 16201 Front Beach Rd	30.21239	-85.87954	Cc	95.2	Alive, taken to GWMI
7	19-May	Pineapple Willies restaurant, 9875 S Thomas Dr	30.17456	-85.80584	Cc	87.5	Dead, buried off beach
8	23-May	M.B. Miller County Pier, 12213 Front Beach Rd	30.18649	-85.8338	Cc	58.3	Alive, taken to GWMI
9	3-Jun	Sugar Sands Motel, 20723 Front Beach Rd	30.24682	-85.94299	Lk	65.5	Dead, salvaged carcass NMFS
10	6-Jun	Aquavista Condo, 17155 Front Beach Rd	30.22137	-85.89312	Cc	66.2	Alive, taken to GWMI
11	8-Jun	Russell-Fields City Pier, 16201 Front Beach Rd	30.214	-85.877	Cc	75.2	Dead, buried off beach
12	8-Jun	Barefoot Hide A Way Grill, 15405 Front Beach Rd	30.20844	-85.86744	Cc	64.6	Alive, taken to GWMI
13	12-Jun	M.B. Miller County Pier, 12213 Front Beach Rd	30.18652	-85.83381	Cc	93.5	Alive, taken to GWMI
14	30-Jun	Commodore Condo, 4715 Thomas Dr	30.13611	-85.74927	Lk	41.4	Dead, buried off beach
15	30-Jun	M.B. Miller County Pier, 12213 Front Beach Rd	30.1867	-85.83366	Cc	74.5	Alive, taken to GWMI
16	4-Aug	House, 22025 Front Beach Rd	30.25464	-85.96129	Cc	UNK	Dead, buried off beach
17	20-Aug	Sea Side Villas, 4701 Thomas Dr	30.13548	-85.74917	Cm	31	Alive, taken to GWMI
18	6-Sep	Russell-Fields City Pier, 16201 Front Beach Rd	30.21389	-85.87846	Cc	67.4	Dead, buried off beach
19	22-Sep	House, 20015 Front Beach Rd	30.24284	-85.93437	Lk	68.8	Dead, buried off beach
20	13-Oct	Russell-Fields City Pier, 16201 Front Beach Rd	30.21212	-85.87982	Cc	90.3	Alive, taken to GWMI