AISTW Nest Productivity Assessment for nests moved in 2021 and 2025 1/7/26

Due to beach renourishments, the Amelia Island Sea Turtle Watch moved 47 nests in 2021, and 20 nests in 2025, all under applicable FWC permits. We took inventory of all of those nests after hatching, and compared the hatching success and emergence success data by species to successful nests not moved.[1]

When comparing nests moved in 2021 and 2025 by species, the moved nests were pretty much the same success as those not moved.

For the moved nests:

- The hatching success was about the same for both 2021 and 2025 for Loggerhead (CC) nests (84-87%) and Green (CM) nests (93-94%).
- The emergence success for Loggerhead nests was slightly less for 2021 (79% vs 83%), and less in 2025 (74% vs 83%).
- The emergence success was less for Green nests moved (85% vs 92%).
- Each were replicated at the same depth as the original nest at the foot of a dune.
- None were washed away.
- All emerged.
- No disorientations occurred.
- For 2025, 17 Loggerhead nests were included. Two nests, RDVS1, and RJEL15, and the Leatherback nest were not included.
- For 2021, 40 Loggerhead nests and 7 green nests were included.

We compared by species to be more accurate because both the hatching and emergence success for Green nests are typically 5% higher (90%, 85%) than Loggerhead nests (85%, 80%).

There were two Loggerhead nests that we moved this year (RDVS1, and RJEL15) which totaled 198 unhatched eggs. The two nests are so extreme that they skew the data because we moved only 19 Loggerhead nests. We excluded these two nests from the results.

There are likely many reasons for less than average emergence for moved nests. The number of moved nests evaluated may not be enough to be a good statistical sample, as a few nests with a lot of live hatchlings that did not emerge can skew the data (just 3 of the 20 Loggerhead nests moved in 2025 totaled 94 live in nest, and 1 of the 7 green nests moved in 2021 totaled 25 live in nest).

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[1] The FWC Nest Productivity Assessment consists of Hatching Success (shards/total eggs) and Emergence Success (live emerge/total eggs). See *FWC Marine Turtle Handbook*, page 2-21.

AISTW comparison of 2025 CC nests moved to CC nests not moved

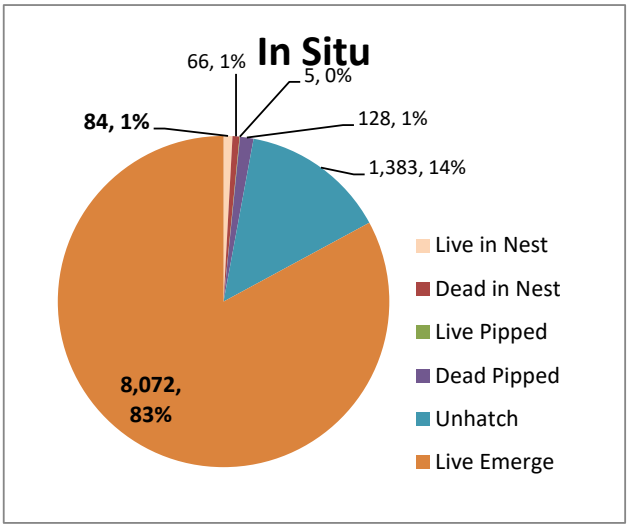
	Number of Nests	Live in Nest	Dead in Nest	Live Pipped	Dead Pipped	Unhatch	Shards (hatched)	Live Emerge	Total eggs laid
In situ nests inventoried	85	84	66	5	128	1,383	8,222	8,072	9,739
Moved nests inventoried	17	191	49	14	92	193	1,796	1,556	2,095

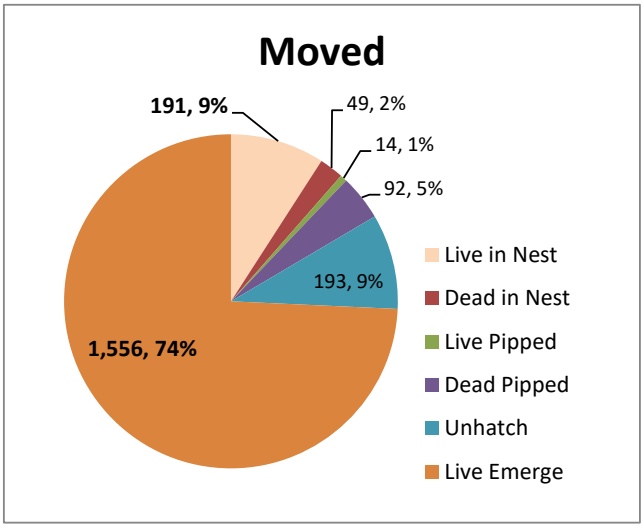
Inventory Comparison of 85 loggerhead nests not moved to 17 loggerhead nests moved (without RDVS1, RJEL15, which contained 198 infertile eggs)

	In Situ	Moved
FWC Hatching Success (shards/total eggs)	**84%**	**86%**
FWC Emergence Success (Live emerge/total eggs)	**83%**	**74%**
Live non emerge / total eggs	**1%**	**9%**
(Live non emerge + Live Emerge) / total eggs	**84%**	**83%**

WBokram as of 11/10/25

See 2016 FWC-marine turtle conservationhandbook, page 2-21





AISTW comparison of 2025 CM nests not moved to 2021 CM nests moved

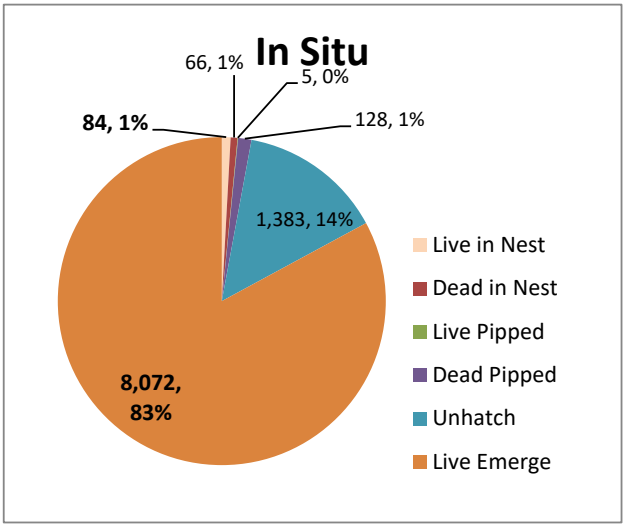
	Number of Nests	Live in Nest	Dead in Nest	Live Pipped	Dead Pipped	Unhatch	Shards (hatched)	Live Emerge	Total eggs laid
In situ nests inventoried	14	5	18	1	11	100	1,592	1,569	1,704
Moved nests inventoried	7	58	22	2	4	48	841	761	895

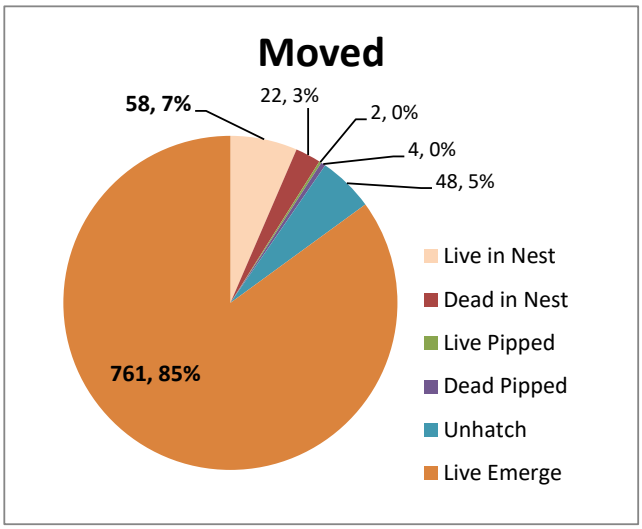
Inventory comparison of 7 green nests moved in 2021 to 14 green nests not moved in 2025

	In Situ	Moved
FWC Hatching Success (shards/total eggs)	**93%**	**94%**
FWC Emergence Success (Live emerge/total eggs)	**92%**	**85%**
Live non emerge / total eggs	**0%**	**6%**
(Live non emerge + Live Emerge) / total eggs	**92%**	**92%**

WBokram as of 11/10/25

See 2016 FWC-marine turtle conservationhandbook, page 2-21

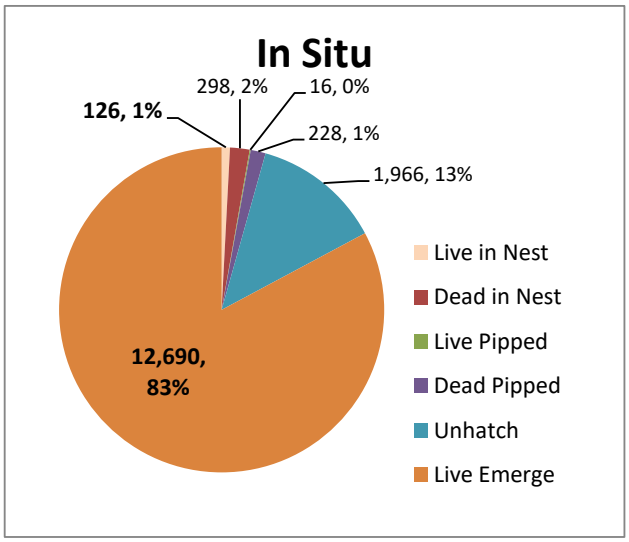
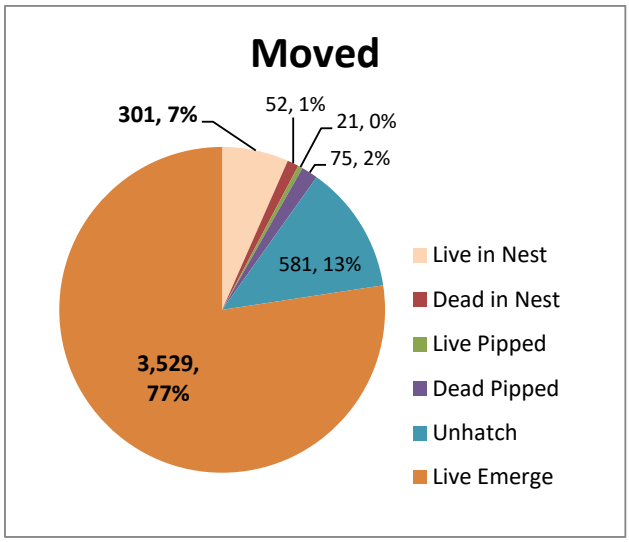




AISTW comparison of 2021 CC nests moved to CC nests not moved

	Number of Nests	Live in Nest	Dead in Nest	Live Pipped	Dead Pipped	Unhatch	Shards (hatched)	Live Emerge	Total eggs laid
In situ nests inventoried	137	126	298	16	228	1,966	13,114	12,690	15,324
Moved nests inventoried	40	301	52	21	75	581	3,882	3,529	4,559

	In Situ	Moved
FWC Hatching Success (shards/total eggs)	**86%**	**87%**
FWC Emergence Success (Live emerge/total eggs)	**83%**	**79%**
Live non emerge / total eggs	**1%**	**7%**
(Live non emerge + Live Emerge) / total eggs	**84%**	**86%**

WBokram as of 11/10/25

See 2016 FWC-marine turtle conservationhandbook, page 2-21