

SEA TURTLE NEST PRODUCTIVITY ASSESSMENT INFORMATION SHEET

NOTES

1. Please verify that the first 5 columns of each Nest Productivity Worksheet accurately represent your beach and your nest marking scheme. For a definition of "nest marking scheme," see the "Definitions" section below. If there are any discrepancies between what has been pre-entered in these 5 columns for your beach and what you think should be entered, contact the FWC/FWRI: **Beth.Brost@MyFWC.com** (727-502-4738).

2. Sampling Period: Ideally, all nesting activity and species should be encompassed. Please start marking nests as soon as you begin your surveys and continue to the end of the nesting season.

3. Please use the worksheets provided in this spreadsheet for data submittal - -Do not submit your own spreadsheet.

4. In the "Hatched Eggs" and "Unhatched Eggs" sections of each of the 5 species Nest Productivity Worksheets, fill-in zeroes when no eggs are present in an inventory category instead of leaving the cells blank.

5. Make sure to fill in the "Hatched Eggs" and "Unhatched Eggs" sections of the Nest Productivity Worksheets with numbers, not text descriptions like "most."

6. Examine the nest sign carefully to estimate exactly where the eggs are deposited. This will allow you to mark the nest via stakes placed systematically at predetermined distances/orientations from the clutch or via triangulated stakes placed in the dune, so that you will be able to find the eggs at the end of incubation. Although NPA protocol previously called for locating the clutch by gentle probing with the fingers, we are discontinuing this recommendation to minimize human effects on the nest.

7. If a nest has been washed-over by the tide, still attempt a nest inventory - - even if the eggs have been washed-over repeatedly and the embryos have died, the eggs can still be counted and this gives us valuable data.

8. Please do not stop marking nests on your beach partway through the season without contacting FWC/FWRI at 727-502-4738, Beth.Brost@MyFWC.com.

9. Please do not change the nest marking scheme (e.g., Every nth nest marked for the nest inventory study) partway throught the season before contacting FWC/FWRI at 727-502-4738, Beth.Brost@MyFWC.com

10. THE NPA SPREADSHEET IS NOT AVAILABLE ONLINE BUT WILL BE SENT DIRECTLY TO EACH PERMIT HOLDER BY FWC/FWRI. E-MAIL THIS SPREADSHEET COMPLETE WITH THE NEST PRODUCTIVITY DATA TO FWC/FWRI (Beth.Brost@MyFWC.com) on or before November 30. For questions regarding the annual report, please contact Beth Brost at 727-502-4738 or Beth.Brost@MyFWC.com.

DEFINITIONS

Self-Releasing: A screen or cage through which hatchlings escape unaided.

Restraining: A screen or cage that does not allow hatchlings to escape unaided.

Pipped: Hatchling broken through shell but not completely free of shell, not a hatched egg.

Initial Treatment: Describes how nest was treated at the time nest was made. Use codes under "Treatment" below.

Final Treatment: Describes any change in treatment anytime during the incubation period. For example, screen or cage added. Explain final treatment (event & date) under "Additional Notes". Use codes under "Treatment" below.

Relocated: Clutch was moved from the original site of deposition. Nests are only considered relocated if it is the initial treatment. If nest is relocated later due to storms, erosion, etc., this should be noted under "Additional Notes."

Man-Made Structures: seawall, rock pile, revetment, exposed geotube, dune crossover/stairs/boardwalk, private walkway, sand fence, storage structure.





Seaward of structure: The nest is considered to be seaward of the man-made structure if you can walk directly landward from the nest and encounter it. For sand fencing, consider the series of grouped sand fences as a single barrier. Any nest laid seaward of the series of sand fences or in between individual sand fences should be marked as a "Yes". **Note:** lifeguard towers, beach furniture, individual posts, recreational equipment, etc. should not be included.



Nest Marking Scheme: The method used to choose the nests that will be included as part of your nest productivity sample so that the sample is representative of your entire beach.

Examples of entries for "nest marking scheme":

"10TH" = Every <u>10th</u> nest encountered on your beach was chosen to be used as part of the productivity sample.

'ALL'' = All nests on your beach were chosen to be used as part of the productivity sample.

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		CO	DDES										
Species Codes:	Species Codes: CC (loggerhead) CM (green turtle) DC (leatherback) EI (hawksbill) LK (Kemp's ridley)												
Treatment Codes:													
A = Eggs left in Place	, No Additional Pro	tection	$\mathbf{E} = \mathbf{Relocated}, \mathrm{No} A$	Additional Protect	ion								
$\mathbf{B} = \text{Eggs}$ left in Place,	Self-Releasing Scre	en	$\mathbf{F} = \text{Relocated, Self-}$	Releasing Screen									
C = Eggs left in Place, Self-Releasing Cage $G = Relocated, Self-Releasing Cage$													
$\mathbf{D} = \text{Eggs}$ left in Place,	Restraining Cage		$\mathbf{H} = \text{Relocated}, \text{Retra}$	aining Cage									

Revised: 6	May2016	LOGGE	RHEAD NEST	PRODUCTIVIT	TY WORKS	SHEET												
6						Total # of CC Nests Marked for						What type of structure is it? (seawall, rock pile,	Clutch Size Counted When Nest	Use "treatme the inform Explain unde notes" if an	tment ent codes" on ation sheet. er "additional nd when the nent changed.			Predated?
Year	Species	Permit Number	Permit Holder	Beach Name	Nest Marking Scheme	this Productivity Sample This # should match the total # of entries listed on this worksheet.	Nest Label	Date Nest Was Made mm/dd/yy	Latitude in Decimal Degrees (DD.ddddd)	Longitude in Decimal Degrees (DD.ddddd)	If Yes, is it within 3 feet of the structure Y/N?	revetment, exposed geotube, dune crossover, private	Was Made Yolked eggs only; If not counted on the date the nest was laid, please enter "UNK"	Initial Treatment	Final Treatment	Y/N?	Date(s) Predation Occurred	If Predated, by What Predator(s)? Raccoon, Bird, Ghost Crab, Cat, Dog, Coyote, Feral Hog, Ants (indicate if fire ants), fox, armadillo, etc.
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																		<u> </u>

							Nest	Washed Ou	t							Hatche	d Eggs
If nest was predated by Ghost Crabs, were there fewer than 10 eggs damaged Y/N?	Roots Invaded	Eggs Damaged By Another Turtle (Y?N)?	Poached (eggs removed) (Y/N)?	Nest Washed Over (no eggs washed away) (Y/N)?	Inundated (standing water) (Y/N)?	Complete Wash out (Y/N)?		Did Washout Occur Post- Hatch, but Pre- Inventory (Y/N)?	If Nest Was Washed Out By A Major Storm, Give Storm Name	First Emergence Date If no emergence signs are noted, please enter "UNK". (mm/dd)	Subsequent Emergence Date(s) If there were no emergences after the "first emergence", please enter "UNK". (mm/dd)	Was Nest Inventoried (Y/N)?	If Nest Not Inventoried, Why Not? Examples: complete predation, eggs all washed away, project limitations, nest poached, could not find nest again.	Date Nest was	# of Ha in M Dead		# of Empty Shells Count shell fragments that are >50% complete; # represents hatchlings that have emerged + hatchlings left in the nest

	Unb	atched Eggs		
	hatchl	ing still in eg	g	
	nateill		D	1
# of P	'ipped,			
Hatchlir	ng Still In			
SI	nell			
			# of	
			Damaged	
			Eggs	
			Damaged by	
		# of Whole		
		Eggs	roots, nesting	
		All stages of	female, or	
D 1		embryos	during	
Dead	Live	inside	relocation.	Additional Notes About this Nest

Revised: 6	May2016	GREEN	TURTLE N	EST PRODUC	CTIVITY W	ORKSHEET	Γ						
Year	Species	Permit Number	Permit Holder	Beach Name	Nest Marking Scheme	Total # of CM Nests Marked for this Productivity Sample This # should match the total # of entries listed on this worksheet.	Nest Label	Date Nest Was Made mm/dd/yy	Latitude in Decimal Degrees (DD.ddddd)	Longitude in Decimal Degrees (DD.dddd)	it within 3 feet of the	geotube dune	Counted When Nes Was Mad Yolked egg only; If no counted on t date the nes was laid,

ize d est de	Treat Use "treatment the informa Explain under notes" if and initial treatment	nt codes" on tion sheet. r "additional d when the		
igs ot the est , er	Initial Treatment	Final Treatment	Y/N?	Date(s) Predation Occurred

								Nest	Washed Out							
Cut, 205, Cojote, I ciui	If nest was predated by Ghost Crabs, were there fewer than 10 eggs damaged Y/N?	Roots Invaded Eggshells (Y/N)?	Eggs Damaged By Another Turtle (Y?N)?	Poached (eggs removed) (Y/N)?	Nest Washed Over (no eggs washed away) (Y/N)?	Inundated (standing water) (Y/N)?	Complete Wash out (Y/N)?	Partial Wash out (Y/N)?	Did Washout Occur Post- Hatch, but Pre- Inventory (Y/N)?	Washed Out	If no emergence signs are noted, please enter "UNK".	Subsequent Emergence Date(s) If there were no emergences after the "first emergence", please enter "UNK". (mm/dd)		If Nest Not Inventoried, Why Not? Examples: complete predation, eggs all washed away, project limitations, nest poached, could not find nest again.	Date Nest was Inventoried (mm/dd)	# Hatchl Ne
		(111)•		(1///)•	(111)	(111)	(1/1/)•	(1/1/)•	(1/1/)•		(IIIII) dd)	(iiiii) dd)	(1/1/)•	uguiii.	(IIIII) dd)	
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Hatched	l Eggs		Un hate	hatched Eggs hling still in eg	55	
of ings in est	# of Empty Shells Count shell fragments that are >50%	Hatchlin	ipped, g Still In lell		# of Damaged	
Live	complete; # represents hatchlings that have emerged + hatchlings left in the nest	Dead	Live	# of Whole Eggs All stages of embryos inside	Eggs Damaged by predators, roots, nesting female, or during relocation.	Additional Notes About this Nest
	in the nest	Deau	Live	entory os hiside	Terocation.	Additional Proces About this Prest

Revised:	6May2016	LEATHE	RBACK NEST P	RODUCTIVITY V	VORKSH	ЕЕТ			
		Permit			Nest Marking	Total # of DC Nests Marked for this Productivity Sample This # should match the total # of entries listed	Nest	Date Nest Was Made	Degrees
Year	Species	Number	Permit Holder	Beach Name	Scheme	on this worksheet.	Label	mm/dd/yy	(DD.ddddd)

			of structure			tment			
			is it?	Clutch Size		nt codes" on the			
			(seawall, rock	Counted When		sheet. Explain			
			•	Nest Was	under "addition	nal notes" if and			Predated?
			pile,	Made					
	Is the nest		revetment,						If Predated, by What
	seaward of	If Yes, is it	exposed	Yolked eggs					Predator(s)?
Longitude	a man-	within 3 feet	geotube, dune	only; If not					Raccoon, Bird, Ghost Crab,
in Decimal	made	of the	crossover,	counted on the				Date(s)	
	structure	structure	private	date the nest was	Initial	Final		Predation	Cat, Dog, Coyote, Feral
Degrees			walkway, sand				Y/N?	Occurred	Hog, Ants (indicate if fire
(DD.ddddd)	Y/N?	Y/N?	fence, other	"UNK"	Treatment	Treatment	Y/IN:	Occurred	ants), fox, armadillo, etc.
L									

							Nest Wa	shed Out	Was	First
If nest was predated by Ghost Crabs, were there fewer than 10 eggs damaged Y/N?	Roots Invaded Eggshells (Y/N)?	Eggs Damaged By Another Turtle (Y?N)?	Poached (eggs removed) (Y/N)?	Nest Washed Over (no eggs washed away) (Y/N)?	Inundated (standing water) (Y/N)?	Complete Wash out (Y/N)?	Partial Wash out (Y/N)?	Did Washout Occur Post- Hatch, but Pre- Inventory (Y/N)?	Washed Out By A Major Storm, Give Storm Name	Emergence Date If no emergence signs are noted, please enter "UNK". (mm/dd)

		Inventoried,						T	1 (1 15	
Subsequent		Why Not?			TT (1	1.5			nhatched Eg	-
Emergence		Examples:			Hatche	d Eggs # or Empty		11 /	hling still in	egg
Date(s)		complete		in l	Nest	Shells	Hatchli	ng Still		
If there were no		predation, eggs				Count shell				# of Damaged
emergences		all washed				fragments that			# of	Eggs
after the "first		away, project				are >50%			Whole	Damaged by
emergence",		limitations, nest				complete; #			Eggs	predators, roots,
please enter	Was Nest	poached, could	Date Nest was			represents			All stages	nesting female,
"UNK".	Inventoried	not find nest	Inventoried			hatchlings that			of embryos	or during
(mm/dd)	(Y/N)?	again.	(mm/dd)	Dead	Live	have emerged +	Dead	Live	inside	relocation.
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Additional Notes About this Nest	
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