



# SOUTHEAST GAP ANALYSIS PROJECT



## Species Modeling Report

### Loggerhead

*Caretta caretta*

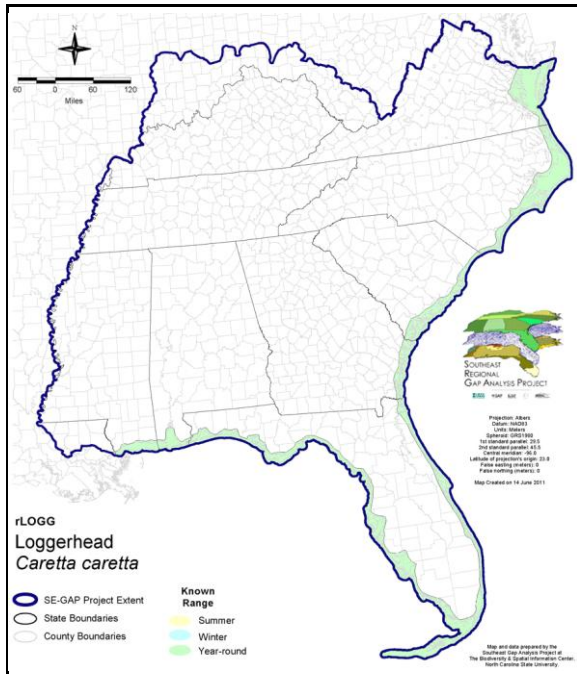
Taxa: Reptilian  
 Order: Cryptodeira  
 Family: Cheloniidae

SE-GAP Spp Code: **rLOGG**

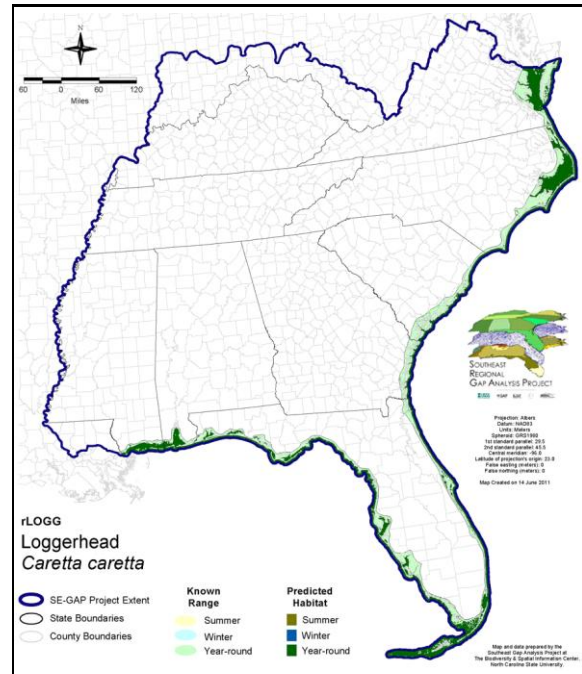
ITIS Species Code: 173830

NatureServe Element Code: ARAAA01010

#### KNOWN RANGE:



#### PREDICTED HABITAT:



Range Map Link: [http://www.basic.ncsu.edu/segap/datazip/maps/SE\\_Range\\_rLOGG.pdf](http://www.basic.ncsu.edu/segap/datazip/maps/SE_Range_rLOGG.pdf)

Predicted Habitat Map Link: [http://www.basic.ncsu.edu/segap/datazip/maps/SE\\_Dist\\_rLOGG.pdf](http://www.basic.ncsu.edu/segap/datazip/maps/SE_Dist_rLOGG.pdf)

GAP Online Tool Link: <http://www.gapservice.ncsu.edu/segap/segap/index2.php?species=rLOGG>

Data Download: [http://www.basic.ncsu.edu/segap/datazip/region/vert/rLOGG\\_se00.zip](http://www.basic.ncsu.edu/segap/datazip/region/vert/rLOGG_se00.zip)

#### PROTECTION STATUS:

Reported on March 14, 2011

Federal Status: LT

State Status: AL (SP), CT (T), DE (E), FL (FT), GA (E), LA (Threatened), MA (T), MD (T), ME (T), MS (LE), MS (LE), NC (T), NC (T), NJ (E), NY (T), RI (Not Listed), SC (ST-Threatened), TX (T), VA (LT), VA (LT), WA (T)

NS Global Rank: G3

NS State Rank: AK (SNA), AL (S1), CA (SNR), CT (SNA), DE (SNA), FL (S3), GA (S2), HI (SNA), LA (S1), MA (S1N), MD (S1B,S1N), MD (S1B,S1N), ME (SNR), MS (S1B), MS (S1B), NC (S3B,S3N), NC (S3B,S3N), NH (SNA), NJ (S1), NY (S1N), OR (SNA), RI (SNR), SC (S3), TX (S2), VA (S1B,S1N), VA (S1B,S1N), WA (SNA), NB (SNA), NF (SNR), NS (SNA)

**SUMMARY OF PREDICTED HABITAT BY MANAGMENT AND GAP PROTECTION STATUS:**

	US FWS		US Forest Service		Tenn. Valley Author.		US DOD/ACOE	
	ha	%	ha	%	ha	%	ha	%
Status 1	1,612.4	6	0.0	0	0.0	0	0.0	0
Status 2	358.0	1	0.0	0	0.0	0	0.0	0
Status 3	28.6	< 1	0.0	0	0.0	0	493.7	2
Status 4	0.0	0	0.0	0	0.0	0	0.0	0
Total	1,999.0	8	0.0	0	0.0	0	493.7	2
	US Dept. of Energy		US Nat. Park Service		NOAA		Other Federal Lands	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	162.0	< 1	60.6	< 1	17.5	< 1
Status 2	0.0	0	3,861.9	15	478.1	2	0.0	0
Status 3	0.0	0	0.5	< 1	0.0	0	0.0	0
Status 4	0.0	0	0.0	0	0.0	0	0.0	0
Total	0.0	0	4,024.4	16	538.7	2	17.5	< 1
	Native Am. Reserv.		State Park/Hist. Park		State WMA/Gameland		State Forest	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	0.0	0	0.0	0	0.0	0
Status 2	0.0	0	0.0	0	824.0	3	0.0	0
Status 3	0.0	0	1,400.1	6	158.6	< 1	25.9	< 1
Status 4	0.0	0	0.0	0	0.0	0	0.0	0
Total	0.0	0	1,400.1	6	982.6	4	25.9	< 1
	State Coastal Reserve		ST Nat.Area/Preserve		Other State Lands		Private Cons. Easemt.	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	0.7	< 1	0.0	0	0.0	0
Status 2	344.6	1	344.6	1	0.0	0	0.0	0
Status 3	0.0	0	0.0	0	0.0	0	0.4	< 1
Status 4	0.0	0	0.0	0	0.0	0	0.0	0
Total	344.6	1	345.3	1	0.0	0	0.4	< 1
	Private Land - No Res.		Water		Overall Total			
	ha	%	ha	%	ha	%		
Status 1	0.0	0	0.0	0	1,853.1 7			
Status 2	0.0	0	0.0	0	6,211.3 25			
Status 3	0.0	0	0.0	0	2,107.8 8			
Status 4	14,091.9	56	917.4	4	15,009.3 60			
Total	14,091.9	56	917.4	4	25,181.5 100			

GAP Status 1: An area having permanent protection from conversion of natural land cover and a mandated management plan in operation to maintain a natural state within which disturbance events (of natural type, frequency, and intensity) are allowed to proceed without interference or are mimicked through management.

GAP Status 2: An area having permanent protection from conversion of natural land cover and a mandated management plan in operation to maintain a primarily natural state, but which may receive use or management practices that degrade the quality of existing natural communities.

GAP Status 3: An area having permanent protection from conversion of natural land cover for the majority of the area, but subject to extractive uses of either a broad, low-intensity type or localized intense type. It also confers protection to federally listed endangered and threatened species throughout the area.

GAP Status 4: Lack of irrevocable easement or mandate to prevent conversion of natural habitat types to anthropogenic habitat types. Allows for intensive use throughout the tract. Also includes those tracts for which the existence of such restrictions or sufficient information to establish a higher status is unknown.

## PREDICTED HABITAT MODEL(S):

### Year-round Model:

**Habitat Description:** Loggerhead sea turtles spend most of their lives at sea where they will wander in the open ocean, but they are generally thought to stay east of the western boundary of the Gulf Stream (Ernst et al. 1994). They will enter bays, lagoons, salt marshes, creeks, and river mouths. The turtles mate at the surface of open water either near the nesting beach or in a male's territory as the female passes through on her way to the nesting beach (Ernst et al. 1994). They nest on isolated beaches of barrier islands from North Carolina south to Florida (Martof et al. 1980), often but not always showing sight fidelity from year to year (Ernst et al. 1994). A nest is dug in the sand on an open beach above the high tide line. It may be at the base of the dunes facing the beach or among the shrubs and vegetation behind the dunes. In Florida, nesting on urban beaches was strongly correlated with the presence of tall objects (trees, buildings), which apparently shield the beach from city lights (Salmon et al. 1995). Former Alabama nesting beaches are apparently unsuitable now probably because of erosion and development. In the southeastern U.S., mating occurs late March-early June. Nesting starts in late May, with the peak in June/July, and continues through August. They lay 1-9 clutches (mostly 2-6) of about 45-200 eggs (average 120) at intervals of about 2 weeks, mostly every 2-3 years. They nest mainly at night, often at high tide. Nesting density reaches nearly 450 nests/km in some areas of Florida (Dodd 1992). Eggs generally hatch in 8-9 weeks in the southeastern U.S. Egg mortality may result from predation, beach erosion, invasion of clutches by plant roots, crushing by off-road vehicles, and flooding by sea water overwash or excessive rainfall. Hatchlings emerge from nest a few days after hatching, typically during darkness and crawl immediately to sea. Females are reproductively active over a period of about 30 years (CSTC 1990). Stacy Smith, 7June05

### Hydrography Mask:

Brackish/Saltwater Only

Utilizes flowing water features with buffers of 120m from and unlimited into selected water features.

Utilizes open water features with buffers of 120m from and unlimited into selected water features.

### Selected Map Units:

Functional Group	Map Unit Name
Anthropogenic	Bare Sand
Beach	Atlantic Coastal Plain Northern Sandy Beach
Beach	Atlantic Coastal Plain Southern Beach
Beach	South Florida Shell Hash Beach
Beach	Southeast Florida Beach
Beach	Southwest Florida Beach
Beach	Unconsolidated Shore (Beach/Dune)
Water	Open Water (Brackish/Salt)

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