



SOUTHEAST GAP ANALYSIS PROJECT



Species Modeling Report

Loggerhead Musk Turtle

Sternotherus minor

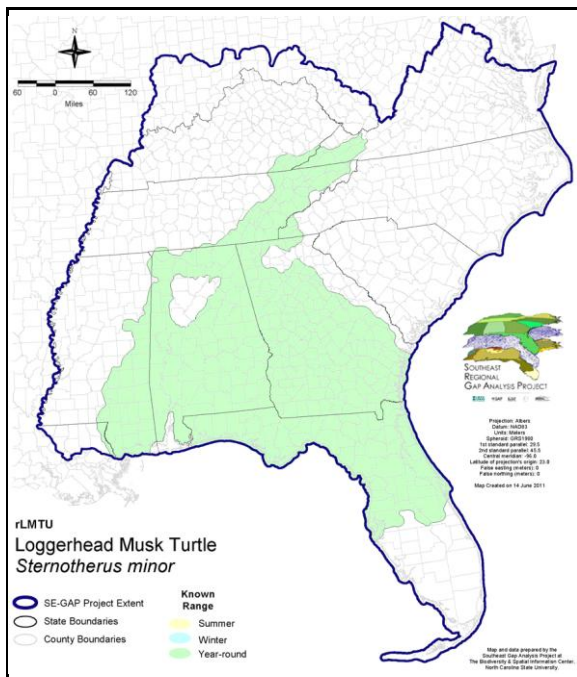
Taxa: Reptilian
 Order: Cryptodeira
 Family: Kinosternidae

SE-GAP Spp Code: **rLMTU**

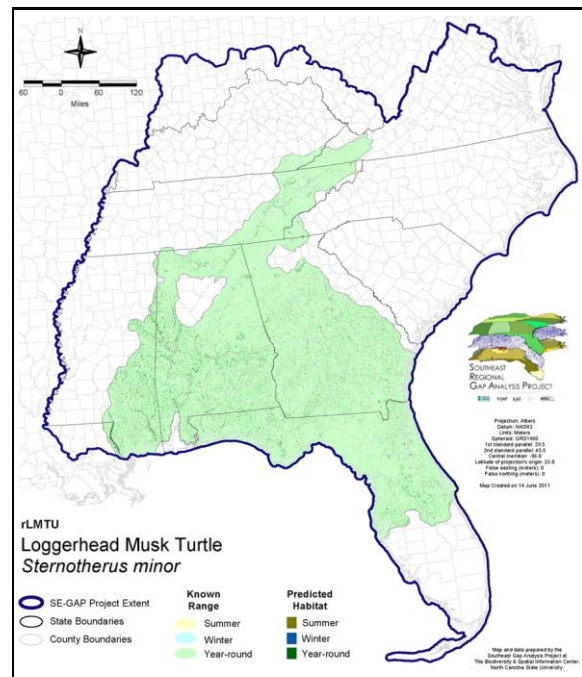
ITIS Species Code: 173761

NatureServe Element Code: ARAAE02030

KNOWN RANGE:



PREDICTED HABITAT:



Range Map Link: http://www.basic.ncsu.edu/segap/datazip/maps/SE_Range_rLMTU.pdf

Predicted Habitat Map Link: http://www.basic.ncsu.edu/segap/datazip/maps/SE_Dist_rLMTU.pdf

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

Data Download: http://www.basic.ncsu.edu/segap/datazip/region/vert/rLMTU_se00.zip

PROTECTION STATUS:

Reported on March 14, 2011

Federal Status: ---

State Status: MS (Non-game species in need of management), NC (SC)

NS Global Rank: G5

NS State Rank: AL (S5), FL (S4), GA (S5), LA (S1), MS (S5), NC (S1), TN (S5), VA (S2)

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	6,661.2	< 1	149.1	< 1	0.0	0	0.0	0
Status 2	5,674.3	< 1	4,034.7	< 1	0.0	0	0.0	0
Status 3	0.0	0	35,877.6	2	3,539.8	< 1	21,048.9	1
Status 4	1.0	< 1	0.0	0	0.0	0	0.0	0
Total	12,336.5	< 1	40,061.4	2	3,539.8	< 1	21,048.9	1
	US Dept. of Energy		US Nat. Park Service		NOAA		Other Federal Lands	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	279.3	< 1	0.0	0	28.4	< 1
Status 2	0.0	0	146.3	< 1	19.6	< 1	0.0	0
Status 3	378.1	< 1	413.1	< 1	0.0	0	402.6	< 1
Status 4	0.0	0	0.0	0	0.0	0	0.0	0
Total	378.1	< 1	838.6	< 1	19.6	< 1	431.0	< 1
	Native Am. Reserv.		State Park/Hist. Park		State WMA/Gameland		State Forest	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	55.3	< 1	1.1	< 1	0.0	0
Status 2	0.0	0	343.8	< 1	22,931.2	1	0.0	0
Status 3	9.1	< 1	34,286.4	2	7,585.0	< 1	11,371.6	< 1
Status 4	0.0	0	0.0	0	2,387.9	< 1	3.7	< 1
Total	9.1	< 1	34,685.5	2	32,905.2	2	11,375.3	< 1
	State Coastal Reserve		ST Nat.Area/Preserve		Other State Lands		Private Cons. Easemt.	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	541.6	< 1	0.0	0	0.0	0
Status 2	195.3	< 1	1,479.5	< 1	0.0	0	200.3	< 1
Status 3	0.0	0	1,546.2	< 1	1,452.2	< 1	3,612.2	< 1
Status 4	0.0	0	0.0	0	130.3	< 1	0.0	0
Total	195.3	< 1	3,567.3	< 1	1,582.6	< 1	3,812.4	< 1
	Private Land - No Res.		Water		Overall Total			
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	0.0	0	7,716.0 < 1			
Status 2	3.2	< 1	0.0	0	35,028.2 2			
Status 3	114.5	< 1	0.0	0	121,637.3 9			
Status 4	1,566,970.5	88	12,589.2	< 1	1,584,469.4 89			
Total	1,567,088.2	88	12,589.2	< 1	1,748,850.8 100			

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 musk turtles are completely aquatic (Mitchell 1994), inhabiting freshwater rivers, creeks, spring runs, oxbows, swamps, ponds, shallow lake margins, and canals (Ernst et al. 1994). They prefer a soft-bottom environment, with aquatic vegetation, tree snags, and rock cover (Mitchell 1994, Ernst et al. 1994). These musk turtles generally do not leave the water except for nesting purposes (Mount 1975). Eggs laid mostly October to June-July in Florida. Clutch size usually 2-3; usually 3-4 clutches/year in Florida. Eggs hatch in about 3 months. Females sexually mature after 6 years (Etchberger and Ehrhart 1987, Ashton and Ashton 1985), males at 3 years in central Florida. In a northern Florida spring, females matured generally in 7-9 years, males in 4.6-6.6 years (Cox et al. 1991). Amy Silvano 8jul05

Ecosystem Classifiers: Aquatic species, only terrestrial systems selected apply to nesting habitat. Amy Silvano 8jul05

Hydrography Mask:

Freshwater Only

Slow Current Only

Utilizes flowing water features with buffers of 60m from and 60m into selected water features.

Utilizes open water features with buffers of 60m from and 120m into selected water features.

Selected Map Units:

Functional Group	Map Unit Name
Anthropogenic	Bare Sand
Anthropogenic	Bare Soil
Water	Open Water (Aquaculture)
Water	Open Water (Fresh)
Wetlands	Atlantic Coastal Plain Blackwater Stream Floodplain Forest - Forest Modifier
Wetlands	Atlantic Coastal Plain Blackwater Stream Floodplain Forest - Herbaceous Modifier
Wetlands	Atlantic Coastal Plain Brownwater Stream Floodplain Forest
Wetlands	Atlantic Coastal Plain Clay-Based Carolina Bay Forested Wetland
Wetlands	Atlantic Coastal Plain Clay-Based Carolina Bay Herbaceous Wetland
Wetlands	Atlantic Coastal Plain Northern Basin Swamp and Wet Hardwood Forest
Wetlands	Atlantic Coastal Plain Peatland Pocosin
Wetlands	Atlantic Coastal Plain Sandhill Seep
Wetlands	Atlantic Coastal Plain Small Blackwater River Floodplain Forest
Wetlands	Atlantic Coastal Plain Small Brownwater River Floodplain Forest
Wetlands	Atlantic Coastal Plain Streamhead Seepage Swamp, Pocosin, and Baygall
Wetlands	Atlantic Coastal Plain Xeric River Dune
Wetlands	Central Appalachian Floodplain - Forest Modifier
Wetlands	Central Appalachian Floodplain - Herbaceous Modifier
Wetlands	Central Appalachian Riparian - Forest Modifier
Wetlands	Central Appalachian Riparian - Herbaceous Modifier
Wetlands	Central Florida Herbaceous Seep
Wetlands	East Gulf Coastal Plain Large River Floodplain Forest - Forest Modifier
Wetlands	East Gulf Coastal Plain Large River Floodplain Forest - Herbaceous Modifier
Wetlands	East Gulf Coastal Plain Northern Seepage Swamp
Wetlands	East Gulf Coastal Plain Small Stream and River Floodplain Forest
Wetlands	Floridian Highlands Freshwater Marsh
Wetlands	Lower Mississippi River Bottomland and Floodplain Forest
Wetlands	Lower Mississippi River Bottomland Depressions - Forest Modifier
Wetlands	Lower Mississippi River Bottomland Depressions - Herbaceous Modifier
Wetlands	Mississippi River Low Floodplain (Bottomland) Forest
Wetlands	Mississippi River Riparian Forest
Wetlands	South Florida Freshwater Slough and Gator Hole
Wetlands	South Florida Willow Head
Wetlands	South-Central Interior Large Floodplain - Forest Modifier

Wetlands	South-Central Interior Large Floodplain - Herbaceous Modifier
Wetlands	South-Central Interior Small Stream and Riparian
Wetlands	Southern Appalachian Seepage Wetland
Wetlands	Southern Coastal Plain Blackwater River Floodplain Forest
Wetlands	Southern Coastal Plain Herbaceous Seepage Bog
Wetlands	Southern Coastal Plain Nonriverine Basin Swamp
Wetlands	Southern Coastal Plain Seepage Swamp and Baygall
Wetlands	Southern Coastal Plain Spring-run Stream Aquatic Vegetation
Wetlands	Southern Piedmont Large Floodplain Forest - Forest Modifier
Wetlands	Southern Piedmont Large Floodplain Forest - Herbaceous Modifier
Wetlands	Southern Piedmont Seepage Wetland
Wetlands	Southern Piedmont Small Floodplain and Riparian Forest
Wetlands	Southern Piedmont/Ridge and Valley Upland Depression Swamp
Wetlands	Unconsolidated Shore (Lake/River/Pond)
Wetlands	Western Highland Rim Seepage Fen

CITATIONS: Ashton, R. E., Jr., and P. S. Ashton. 1985. Handbook of reptiles and amphibians of Florida. Part two. Lizards, turtles & crocodylians. Windward Pub., Inc., Miami. 191 pp.

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Compiled: 15 September 2011

This data was compiled and/or developed by the Southeast GAP Analysis Project at The Biodiversity and Spatial Information Center, North Carolina State University.