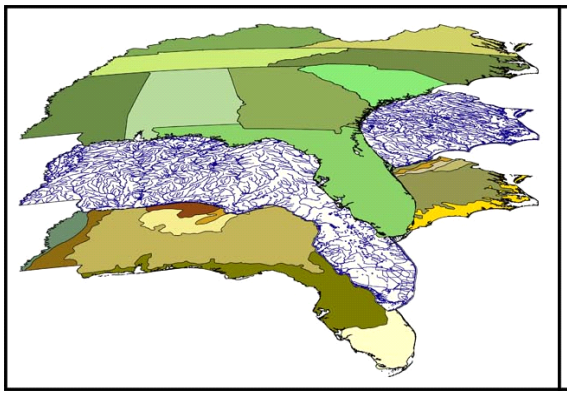


SOUTHEAST GAP ANALYSIS PROJECT

USGS | gap | BaSIC | NARSAL

Species Modeling Report

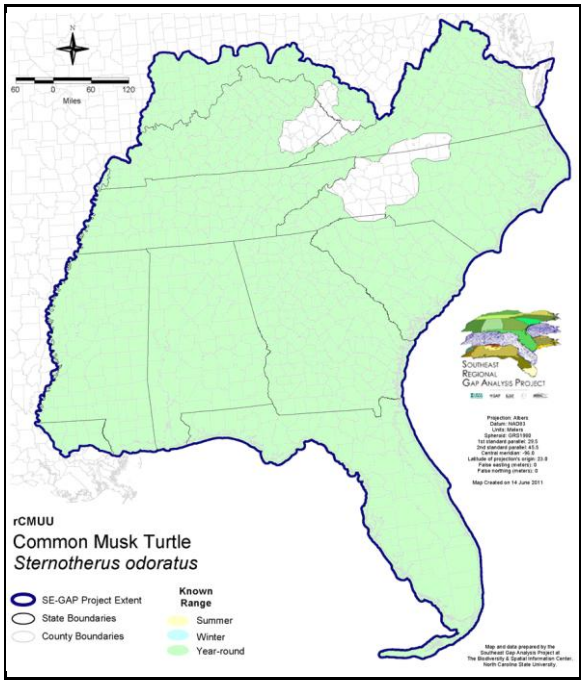
Common Musk Turtle

Sternotherus odoratus

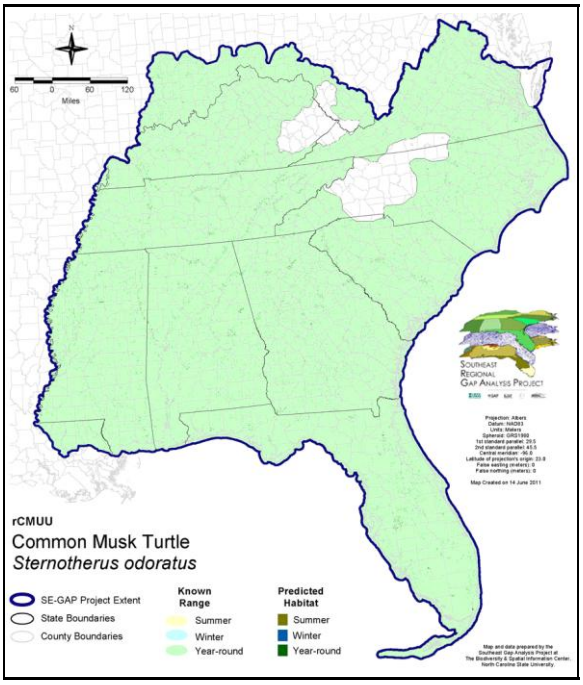
Taxa: Reptilian
Order: Cryptodeira
Family: Kinosternidae

SE-GAP Spp Code: **rCMUU**
ITIS Species Code: 173758
NatureServe Element Code: ARAAE02040

KNOWN RANGE:



PREDICTED HABITAT:



Range Map Link: http://www.basic.ncsu.edu/segap/datazip/maps/SE_Range_rCMUU.pdf
Predicted Habitat Map Link: http://www.basic.ncsu.edu/segap/datazip/maps/SE_Dist_rCMUU.pdf
GAP Online Tool Link: http://www.gapserve.ncsu.edu/segap/segap/index2.php?species=rCMUU
Data Download: http://www.basic.ncsu.edu/segap/datazip/region/vert/rCMUU_se00.zip

PROTECTION STATUS:

Reported on March 14, 2011

Federal Status: ---

State Status: IA (T), KY (N), MA (- WL), MS (Non-game species in need of management), NJ (S), NY (GN), RI (Not Listed), ON (THR), QC (Susceptible)

NS Global Rank: G5

NS State Rank: AL (S5), AR (S5), CT (S4), DC (S4), DE (S5), FL (S5), GA (S5), IA (S2), IL (S5), IN (S4), KS (S4), KY (S5), LA (S5), MA (S4S5), MD (S5), ME (S3), MI (S5), MO (S5), MS (S5), NC (S5), NH (S5), NJ (S5), NY (S5), OH (SNR), OK (S4), PA (S4), RI (S4), SC (SNR), TN (S5), TX (S5), VA (S5), VT (S2), WI (S4), WV (S5), MB (SNA), ON (S3), QC (S1)

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	77.4	< 1	0.0	0	0.0	0	0.0	0
Status 2	289.7	< 1	10.9	< 1	0.0	0	0.7	< 1
Status 3	23.9	< 1	149.8	< 1	299.6	< 1	2,867.9	5
Status 4	0.0	0	0.0	0	0.0	0	0.0	0
Total	391.0	< 1	160.7	< 1	299.6	< 1	2,868.7	5

	US Dept. of Energy		US Nat. Park Service		NOAA		Other Federal Lands	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	3.8	< 1	0.0	0	4.0	< 1
Status 2	0.0	0	70.4	< 1	15.1	< 1	0.0	0
Status 3	40.9	< 1	14.1	< 1	0.0	0	0.4	< 1
Status 4	0.0	0	0.0	0	0.0	0	0.0	0
Total	40.9	< 1	88.3	< 1	15.1	< 1	4.3	< 1

	Native Am. Reserv.		State Park/Hist. Park		State WMA/Gameland		State Forest	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	0.2	< 1	0.0	0	0.0	0
Status 2	0.0	0	3.1	< 1	427.6	< 1	0.0	0
Status 3	0.0	0	653.2	1	247.2	< 1	157.9	< 1
Status 4	0.0	0	0.0	0	86.9	< 1	0.0	0
Total	0.0	0	656.5	1	761.7	1	157.9	< 1

	State Coastal Reserve		ST Nat.Area/Preserve		Other State Lands		Private Cons. Easemt.	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	0.0	0	0.0	0	0.0	0
Status 2	65.3	< 1	34.8	< 1	0.0	0	4.7	< 1
Status 3	0.0	0	3.8	< 1	749.9	1	218.7	< 1
Status 4	0.0	0	0.0	0	1.1	< 1	0.0	0
Total	65.3	< 1	38.6	< 1	751.0	1	223.4	< 1

	Private Land - No Res.		Water		Overall Total	
	ha	%	ha	%	ha	%
Status 1	0.0	0	0.0	0	85.3	< 1
Status 2	0.0	0	0.0	0	922.2	2
Status 3	0.0	0	0.0	0	5,427.2	11
Status 4	39,986.0	76	5,992.6	11	46,153.4	88
Total	39,986.0	76	5,992.6	11	52,588.1	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: Widespread in the eastern U.S., common musk turtles prefer water bodies with organic substrates and vegetation (Mitchell 1994). They are found in ponds, lakes, swamps, marshes, ditches, streams, and rivers, but will not be found in brackish or salt waters (Mitchell 1994, Palmer and Braswell 1995). Most common in still or slow waters with soft bottoms, abundant emergent vegetation, and large submerged objects (Palmer and Braswell 1995). It rarely leaves the water, except to nest, but will not tolerate mixing of sea and fresh water and will desert water bodies that has become brackish by man's interference.
This species does not normally bask (Pope 1939), but, when they do, bask on banks or in old fallen trees (Ernst and Barbour 1972). They will hibernate buried 12 inches or so in the mud bottom under the water, in recesses in banks, or in muskrat dens or lodges (Ernst and Barbour 1972, Mitchell 1994).

Eggs are laid up to about 50 m (average 7 m in Pennsylvania) from water in soil; under logs, stumps, and vegetable debris; and in walls of muskrat houses; sometimes on open ground.

Quoted directly from existing habitat notes. Amy Silvano 8jul05

Ecosystem classifers: Aquatic species. Only nesting mapping units selected. Amy Silvano 8jul05

Hydrography Mask:

Freshwater 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 60m into selected water features.

Utilizes wet vegetation features with buffers of 60m from and unlimited into selected vegetation features.

Selected Map Units:

Functional Group	Map Unit Name
Anthropogenic	Bare Sand
Anthropogenic	Bare Soil
Beach	Unconsolidated Shore (Beach/Dune)
Water	Open Water (Fresh)
Wetlands	Unconsolidated Shore (Lake/River/Pond)

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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.