



# SOUTHEAST GAP ANALYSIS PROJECT



## Species Modeling Report

### Eastern Spiny Softshell

*Apalone spinifera spinifera*

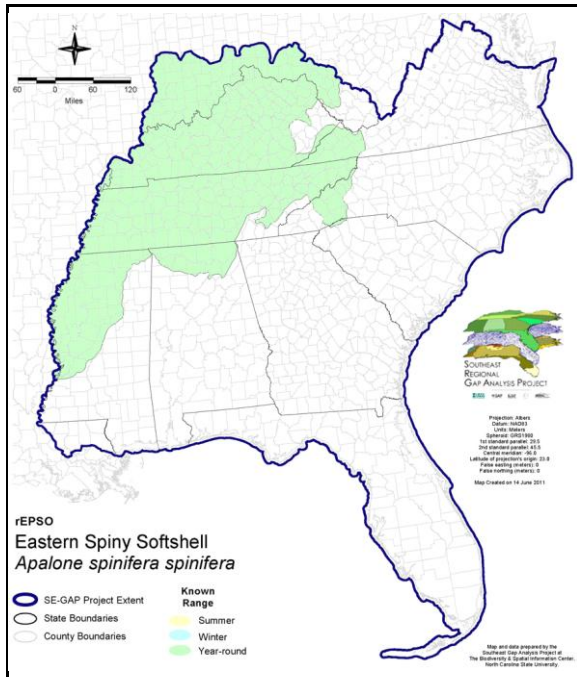
Taxa: Reptilian  
 Order: Cryptodeira  
 Family: Trionychidae

SE-GAP Spp Code: **rEPSO**

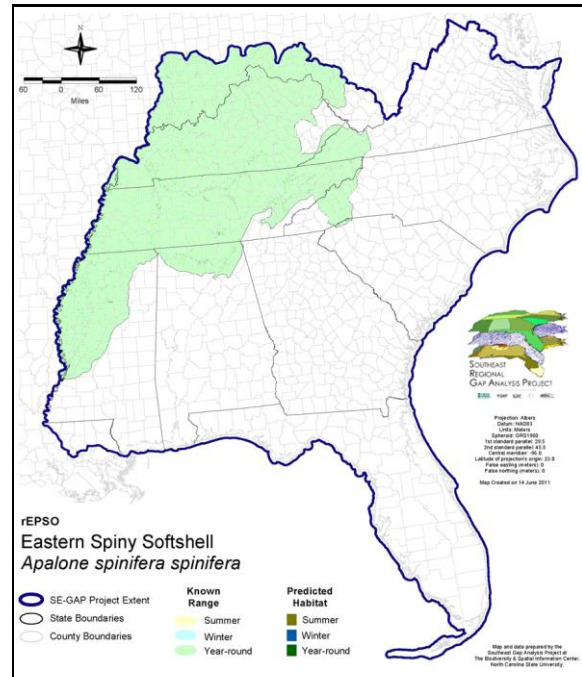
ITIS Species Code: 208693

NatureServe Element Code: ARAAG01036

#### KNOWN RANGE:



#### PREDICTED HABITAT:



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

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

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

Data Download: [http://www.basic.ncsu.edu/segap/datazip/region/vert/rEPSO\\_se00.zip](http://www.basic.ncsu.edu/segap/datazip/region/vert/rEPSO_se00.zip)

#### PROTECTION STATUS:

Reported on March 14, 2011

Federal Status: ---

State Status: AL (PSNG), KY (N), NC (SC), NJ (I)

NS Global Rank: G5T5

NS State Rank: AL (SNR), AR (SNR), IN (S4), KY (S5), MO (S5), NC (S1), NJ (SNA), PA (S4), VA (S2), WV (S4), ON (S3)

**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	35.2	< 1	0.0	0	0.0	0	0.0	0
Status 2	17.7	< 1	0.0	0	0.0	0	0.0	0
Status 3	14.7	< 1	7.6	< 1	175.2	< 1	413.3	2
Status 4	0.0	0	0.0	0	0.0	0	0.0	0
Total	67.6	< 1	7.6	< 1	175.2	< 1	413.3	2
	US Dept. of Energy		US Nat. Park Service		NOAA		Other Federal Lands	
	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	0.0	0	0.0	0
Status 3	0.0	0	0.7	< 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	0.7	< 1	0.0	0	0.0	0
	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	162.2	< 1	0.0	0
Status 3	0.0	0	98.2	< 1	190.6	< 1	0.0	0
Status 4	0.0	0	0.0	0	0.0	0	0.0	0
Total	0.0	0	98.2	< 1	352.8	2	0.0	0
	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	0.0	0	15.2	< 1	0.0	0	0.8	< 1
Status 3	0.0	0	0.0	0	0.4	< 1	111.5	< 1
Status 4	0.0	0	0.0	0	0.0	0	0.0	0
Total	0.0	0	15.2	< 1	0.4	< 1	112.3	< 1
	Private Land - No Res.		Water		Overall Total			
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	0.0	0	35.2	< 1		
Status 2	0.0	0	0.0	0	195.9	< 1		
Status 3	0.0	0	0.0	0	1,012.1	4		
Status 4	11,101.2	49	10,168.1	45	21,269.3	95		
Total	11,101.2	49	10,168.1	45	22,512.6	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: Primarily aquatic, the eastern spiny softshell inhabits permanent rivers and streams, creeks, oxbows, lakes, and impoundments (Ernst et al. 1994, Mitchell 1994). Similar to *A.s. aspera* this spiny softshell prefers habitat with sandy or soft organic substrate with some aquatic vegetation and sandbars for bask and nesting (Mitchell 1994). 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 unlimited into selected water features.

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

Utilizes wet vegetation features with buffer of 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)

- CITATIONS:** Conant, R. and J.T. Collins. 1998. A field guide to the reptiles and amphibians: eastern and central North America. Houghton Mifflin, Boston. 616 p.
- Ernst, C. H., R. W. Barbour, and J. E. Lovich. 1994. Turtles of the United States and Canada. Smithsonian Institution Press, Washington, D.C. xxxviii + 578 pp.
- Mitchell, J. C. 1994. The reptiles of Virginia. Washington, DC: Smithsonian Institution Press.
- Mount, R. H. 1975. The Reptiles and Amphibians of Alabama. Auburn University Agricultural Experiment Station, Auburn, Alabama. vii + 347 pp.
- Palmer, W. M., and A. L. Braswell. 1995. Reptiles of North Carolina. North Carolina State Museum of Natural Sciences, University of North Carolina Press, Chapel Hill, North Carolina.

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