



# SOUTHEAST GAP ANALYSIS PROJECT



## Species Modeling Report

### River Cooter

*Pseudemys concinna*

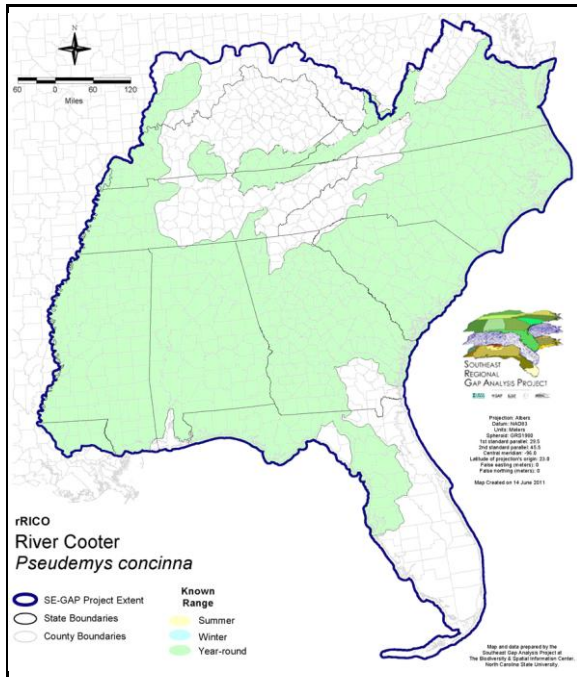
Taxa: Reptilian  
 Order: Cryptodeira  
 Family: Emydidae

SE-GAP Spp Code: **rRICO**

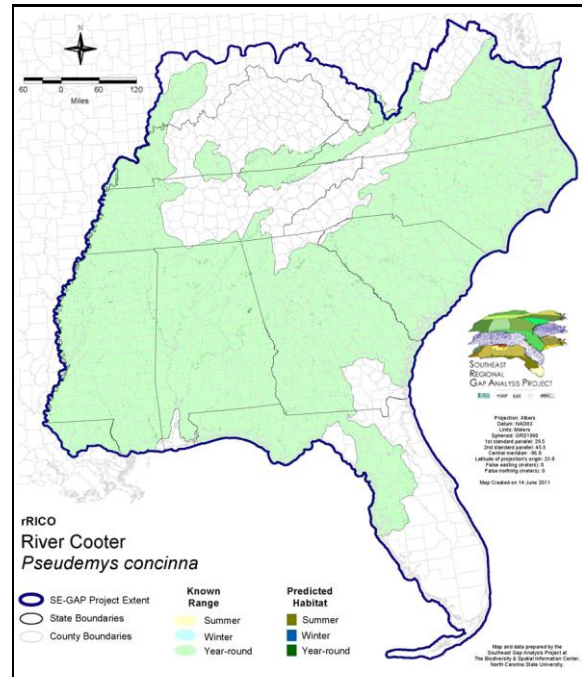
ITIS Species Code: 173805

NatureServe Element Code: ARAAD07020

#### KNOWN RANGE:



#### PREDICTED HABITAT:



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

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

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

Data Download: [http://www.basic.ncsu.edu/segap/datazip/region/vert/rRICO\\_se00.zip](http://www.basic.ncsu.edu/segap/datazip/region/vert/rRICO_se00.zip)

#### PROTECTION STATUS:

Reported on March 14, 2011

Federal Status: ---

State Status: IL (LE), KY (N), MS (Non-game species in need of management)

NS Global Rank: G5

NS State Rank: AL (S5), AR (S5), FL (S4), GA (S4S5), IL (S1), IN (SNR), KS (S4), KY (S3), LA (S4), MD (SNR), MO (S4), MS (S5), NC (S4), OK (S4), SC (SNR), TN (S5), TX (S5), VA (S4), WV (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	321.8	< 1	0.0	0	0.0	0	0.0	0
Status 2	1,216.7	2	11.0	< 1	0.0	0	46.7	< 1
Status 3	10.2	< 1	216.0	< 1	231.8	< 1	1,498.1	2
Status 4	1.6	< 1	0.0	0	0.0	0	0.9	< 1
Total	1,550.3	2	227.0	< 1	231.8	< 1	1,545.7	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	1.6	< 1	39.3	< 1	0.0	0
Status 3	22.8	< 1	12.2	< 1	0.0	0	5.9	< 1
Status 4	0.0	0	0.0	0	0.0	0	0.0	0
Total	22.8	< 1	13.8	< 1	39.3	< 1	5.9	< 1
	Native Am. Reserv.		State Park/Hist. Park		State WMA/Gameland		State Forest	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	1.9	< 1	0.0	0	0.0	0
Status 2	0.0	0	21.6	< 1	1,172.5	2	0.0	0
Status 3	0.0	0	830.9	1	651.2	< 1	108.4	< 1
Status 4	0.0	0	0.0	0	171.0	< 1	0.0	0
Total	0.0	0	854.4	1	1,994.8	3	108.4	< 1
	State Coastal Reserve		ST Nat.Area/Preserve		Other State Lands		Private Cons. Easemt.	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	< 0.1	< 1	0.0	0	0.0	0
Status 2	636.2	< 1	167.3	< 1	0.0	0	3.0	< 1
Status 3	0.0	0	17.8	< 1	27.7	< 1	198.5	< 1
Status 4	0.0	0	0.0	0	0.7	< 1	0.0	0
Total	636.2	< 1	185.2	< 1	28.4	< 1	201.5	< 1
	Private Land - No Res.		Water		Overall Total			
	ha	%	ha	%	ha	%		
Status 1	0.0	0	0.0	0	323.7	< 1		
Status 2	0.0	0	0.0	0	3,316.0	5		
Status 3	0.0	0	0.0	0	3,831.4	6		
Status 4	47,425.0	70	12,183.1	18	59,951.7	89		
Total	47,425.0	70	12,183.1	18	67,422.8	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:** River cooters are highly aquatic (Mount 1975) They are found throughout the southeast chiefly in streams with moderate current, abundant aquatic vegetation, basking sites, and rocky bottom; also larger lakes, ponds, oxbows, swamps, ditches, lagoons, and brackish tidal marshes in Gulf of Mexico; leaves water only to nest or bask (Ernst and Barbour 1972, in NatureServe 2005). They nest on sandy or friable soils usually less than 30 m from water (Ernst et al. 1994). Amy Silvano 7jul05

**Ecosystem Classifiers:** Aquatic species, only terrestrial systems selected apply to nesting habitat.

\*\*\*\*Width of stream would be a good layer for predicting this species occurrence in rivers and streams (if categorized would include in medium and large streams/rivers). Flow Accumulation may be a good predictor for this species since it needs wider, moving rivers and streams. Probably could set minimum threshold for accumulation, can't find any literature to support and type of slope, threshold etc., but in CP could probably use min of 5-10. Amy Silvano 7jul05

### Hydrography Mask:

Freshwater Only

Utilizes flowing water features with buffers of 30m from and unlimited into selected water features.

Utilizes open water features with buffers of 30m from and 60m into selected water features.

### Selected Map Units:

Functional Group	Map Unit Name
Anthropogenic	Bare Sand
Anthropogenic	Bare Soil
Beach	Unconsolidated Shore (Beach/Dune)
Brackish Tidal Marsh & Wetland	Atlantic Coastal Plain Central Salt and Brackish Tidal Marsh
Brackish Tidal Marsh & Wetland	Atlantic Coastal Plain Embayed Region Tidal Salt and Brackish Marsh
Brackish Tidal Marsh & Wetland	Atlantic Coastal Plain Indian River Lagoon Tidal Marsh
Brackish Tidal Marsh & Wetland	Atlantic Coastal Plain Northern Sea-Level Fen
Brackish Tidal Marsh & Wetland	Atlantic Coastal Plain Northern Tidal Salt Marsh
Brackish Tidal Marsh & Wetland	Atlantic Coastal Plain Northern Tidal Wooded Swamp
Brackish Tidal Marsh & Wetland	Atlantic Coastal Plain Southern Tidal Wooded Swamp
Brackish Tidal Marsh & Wetland	East Gulf Coastal Plain Tidal Wooded Swamp
Brackish Tidal Marsh & Wetland	Florida Big Bend Salt-Brackish Tidal Marsh
Brackish Tidal Marsh & Wetland	Mississippi Sound Salt and Brackish Tidal Marsh
Brackish Tidal Marsh & Wetland	Southwest Florida Perched Barriers Salt Swamp and Lagoon - Mangrove Modifier
Brackish Tidal Marsh & Wetland	Southwest Florida Perched Barriers Salt Swamp and Lagoon - Marsh Modifier
Coastal Dune & Freshwater Wetland	Atlantic and Gulf Coastal Plain Interdunal Wetland
Coastal Dune & Freshwater Wetland	Atlantic Coastal Plain Northern Dune and Maritime Grassland
Coastal Dune & Freshwater Wetland	Atlantic Coastal Plain Southern Dune and Maritime Grassland
Coastal Dune & Freshwater Wetland	East Gulf Coastal Plain Dune and Coastal Grassland
Coastal Dune & Freshwater Wetland	Southwest Florida Dune and Coastal Grassland
Freshwater Tidal Marsh & Wetland	Atlantic Coastal Plain Central Fresh-Oligohaline Tidal Marsh
Freshwater Tidal Marsh & Wetland	Atlantic Coastal Plain Embayed Region Tidal Freshwater Marsh
Freshwater Tidal Marsh & Wetland	Atlantic Coastal Plain Northern Fresh and Oligohaline Tidal Marsh
Freshwater Tidal Marsh & Wetland	Florida Big Bend Fresh-Oligohaline Tidal Marsh
Water	Open Water (Fresh)
Wetlands	Atlantic Coastal Plain Blackwater Stream Floodplain Forest - Herbaceous Modifier
Wetlands	Atlantic Coastal Plain Depression Pondshore
Wetlands	Atlantic Coastal Plain Large Natural Lakeshore
Wetlands	Atlantic Coastal Plain Northern Pondshore
Wetlands	Atlantic Coastal Plain Xeric River Dune
Wetlands	Central Appalachian Floodplain - Herbaceous Modifier
Wetlands	Central Appalachian Riparian - Herbaceous Modifier
Wetlands	Central Florida Herbaceous Pondshore
Wetlands	Central Interior Highlands and Appalachian Sinkhole and Depression Pond

Wetlands	Cumberland Riverscour
Wetlands	East Gulf Coastal Plain Large River Floodplain Forest - Herbaceous Modifier
Wetlands	East Gulf Coastal Plain Northern Depression Pondshore
Wetlands	East Gulf Coastal Plain Southern Depression Pondshore
Wetlands	Lower Mississippi River Bottomland Depressions - Herbaceous Modifier
Wetlands	South Florida Pond-Apple/Popash Slough
Wetlands	South-Central Interior Large Floodplain - Herbaceous Modifier
Wetlands	Southern Coastal Plain Spring-run Stream Aquatic Vegetation
Wetlands	Southern Piedmont Large Floodplain Forest - Herbaceous Modifier
Wetlands	Unconsolidated Shore (Lake/River/Pond)

**CITATIONS:** Behler, J. L., and F. W. King. 1979. The Audubon Society field guide to North American reptiles and amphibians. Alfred A. Knopf, New York. 719 pp.

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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.