



# Species Modeling Report

# **Redbelly Turtle**

Pseudemys rubriventris

- Taxa: Reptilian
- Order: Cryptodeira
- Family: Emydidae

#### **KNOWN RANGE:**



## SE-GAP Spp Code: **rRETU** ITIS Species Code: 173814 NatureServe Element Code: ARAAD07050

#### PREDICTED HABITAT:



 Range Map Link:
 http://www.basic.ncsu.edu/segap/datazip/maps/SE\_Range\_rRETU.pdf

 Predicted Habitat Map Link:
 http://www.basic.ncsu.edu/segap/datazip/maps/SE\_Dist\_rRETU.pdf

 GAP Online Tool Link:
 http://www.gapserve.ncsu.edu/segap/segap/index2.php?species=rRETU

 Data Download:
 http://www.basic.ncsu.edu/segap/datazip/region/vert/rRETU\_se00.zip

#### **PROTECTION STATUS:**

Reported on March 14, 2011

Federal Status: ---State Status: NC (W1), NJ (U), NY (U), PA (PT) NS Global Rank: G5 NS State Rank: DC (S4), DE (S5), MA (SNR), MD (S5), NC (S3), NJ (S4), NY (SNA), PA (S2S3), VA (S4), WV (S2)

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

		US FWS	US Fores	t Service	Tenn. Valle	y Author.	US DO	D/ACOE
	ha	%	ha	%	ha	%	ha	%
Status 1	2,289.3	1	0.0	0	0.0	0	0.0	0
Status 2	2,890.0	2	0.0	0	0.0	0	157.0	< 1
Status 3	195.8	< 1	2.1	< 1	0.0	0	3,611.4	2
Status 4	7.0	< 1	0.0	0	0.0	0	1.2	< 1
Total	5,382.1	3	2.1	< 1	0.0	0	3,769.6	2
	US Dant of Franze US Not Dark Comica		I	ΝΟΔΔ		Other Federal Lands		
	bo Depti o	% Energy	bo Nut. 1 ul	« Service %	ha	%	ha	% circle
Status 1	0.0	0	4 112 2	2	0.0	0	0.0	0
Status 2	0.0	0	1 255 4	< 1	38.8	< 1	0.0	0
Status 2	0.0	0	1 546 9	< 1	0.0	0	0.0	0
Status 4	0.0	0	1,5 10.5	0	0.0	0	0.0	0
Total	0.0	0	6,914.5	4	38.8	< 1	0.0	0
			I					
	Native Am	. Reserv.	State Park/H	list. Park	State WMA/G	iameland	Stat	e Forest
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	0.0	0	0.0	0	0.0	0
Status 2	0.0	0	20.0	< 1	1,527.8	< 1	0.0	0
Status 3	0.0	0	832.3	< 1	1,338.1	< 1	86.0	< 1
Status 4	0.0	0	0.0	0	105.1	< 1	0.0	0
Total	0.0	0	852.3	< 1	2,971.0	2	86.0	< 1
	State Coastal	Poconio	ST Nat Area/	Drocorico	Other St	ato Lando	Drivata Conc	Eacomt
	State Coastai	Neserve 0/	ST Nat.Area/	o/	Other Sta		Private Coris.	Edsennt.
Status 1	0.0	/0		/0	0.0	70	118	/0
Status 2	662.0	- 1	551.2	- 1	0.0	0	0.0	0
Status 2	003.9	0	0.0	1	0.0	0	0.0	- 1
Status J	0.0	0	0.0	0	3.0	- 1	0.5	0
Total	663.9	< 1	551.3	<1	3.0	<1	0.5	<1
	Private Land -	- No Res.		Water			Over	all Total
	ha	%	ha	%			ha	%
Status 1	0.0	0	0.0	0			6,401.5	4
Status 2	0.0	0	0.0	0			7,104.2	4
Status 3	0.0	0	0.0	0			7,613.1	4
Status 4	153,789.0	87	1,503.1	< 1			155,506.5	88
Total	153,789.0	87	1,503.1	< 1			176,625.3	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: This species occurs in freshwater ponds, lakes and blackwater swamps as well as in streams and rivers, brackish waters, and even salt marshes (Conant 1958, Carr 1952). They are mainly found in relatively large, deep, still or slow moving waterbodies (though also found in swifter streams) with numerous basking sites and soft substrate for hibernation (Carr 1952). Features of preferred habitat include emergent and submerged freshwater plants, basking sites near deep water, and a soft substrate (Mitchell 1994). Eggs are laid in nests dug in soft soil in open areas usually within 100 yards of water (USFWS 1981). Often nests in tilled or disturbed soil (DeGraaf and Rudis 1983, Ernst and Barbour 1972).

\*\*\*Quoted directly from State Hab notes.

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

#### Hydrography Mask:

Utilizes flowing water features with buffers of 60m from and 2000m into selected water features. Utilizes open water features with buffers of 60m from and 2000m into selected water features.

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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 Northern Sea-Level Fen
Coastal Dune & Freshwater Wetland	Atlantic and Gulf Coastal Plain Interdunal Wetland
Forest/Woodland	Southern and Central Appalachian Cove Forest
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
Water	Open Water (Brackish/Salt)
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 Depression Pondshore
Wetlands	Atlantic Coastal Plain Large Natural Lakeshore
Wetlands	Atlantic Coastal Plain Northern Pondshore
Wetlands	Atlantic Coastal Plain Small Blackwater River Floodplain Forest
Wetlands	Atlantic Coastal Plain Small Brownwater River Floodplain Forest
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	Southern Coastal Plain Blackwater River Floodplain Forest
Wetlands	Southern Piedmont Large Floodplain Forest - Forest Modifier
Wetlands	Southern Piedmont Large Floodplain Forest - Herbaceous Modifier
Wetlands	Southern Piedmont Small Floodplain and Riparian Forest
Wetlands	Unconsolidated Shore (Lake/River/Pond)

CITATIONS: Browne, R. A., N. A. Haskell, C. R. Griffin, and J. W. Ridgeway. 1996. Genetic variation among populations of the redbelly turtle (PSEUDEMYS RUBRIVENTRIS). Copeia 1996:192-195.

Carr, A. 1952. Handbook of Turtles. Cornell University Press, Ithaca, NY. 542 pp. DeGraaf, R. M., and D. D. Rudis. 1983. Amphibians and reptiles of New England. Habitats and natural history. Univ. Massachusetts Press. vii + 83 pp. Ernst, C. H., and R. W. Barbour. 1972. Turtles of the United States. Univ. Press of Kentucky, Lexington. x + 347 pp. Graham, T. E. 1991. PSEUDEMYS RUBRIVENTRIS. Cat. Am. Amph. Rept. 510.1-510.4. Iverson, J. B., and T. E. Graham. 1990. Geographic variation in the redbelly turtle, PSEUDEMYS RUBRIVENTRIS (Reptilia:Testudines). Ann. Carnegie Mus. 59:1-13. Mitchell, J. C. 1994. The reptiles of Virginia. Washington, DC: Smithsonian Institution Press. Seidel, M. E. 1994. Morphometric analysis and taxonomy of cooter and red-bellied turtles in the North American genus PSEUDEMYS (Emydidae). Chelonian Conservation and Biology 1(2):117-130. Seidel, M. E., and W. M. Palmer. 1991. Morphological variation in turtles of the genus PSEUDEMYS (Testudines: Emydidae) from central Atlantic drainages. Brimleyana 17:105-135. U. S. Fish & Wildlife Service. 1981. Plymouth red-bellied turtle recovery plan. U.S. Dept. of the Interior. 1981. Plymouth red-bellied turtle recovery plan. U.S. Fish and Wildlife Service, Region 5, 13 pp. For more information:: SE-GAP Analysis Project / BaSIC Compiled: 15 September 2011

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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