



SOUTHEAST GAP ANALYSIS PROJECT



Species Modeling Report

Bog Turtle

Glyptemys muhlenbergii

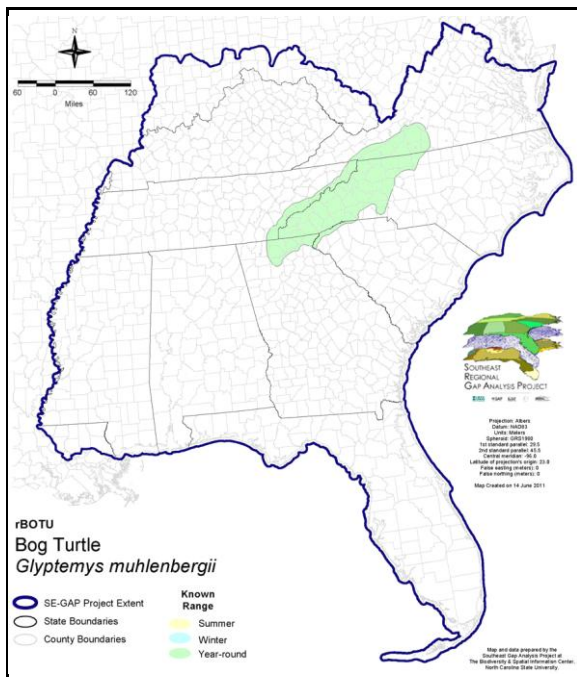
Taxa: Reptilian
Order: Cryptodeira
Family: Emydidae

SE-GAP Spp Code: **rBOTU**

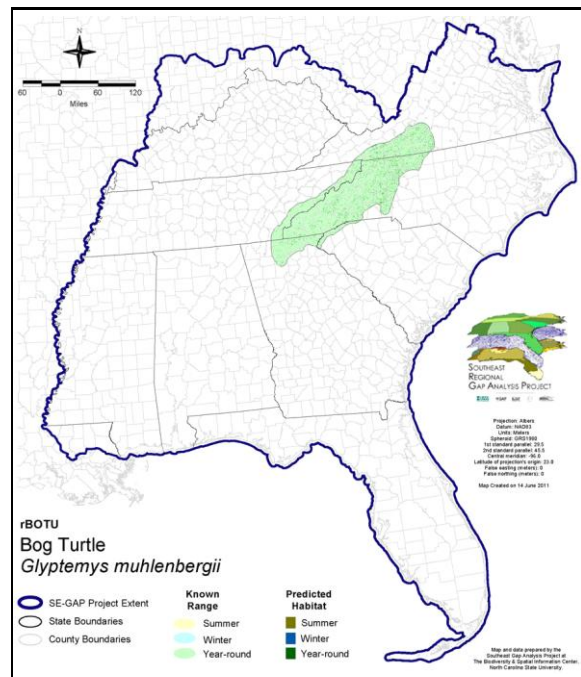
ITIS Species Code: 173773

NatureServe Element Code: ARAAD02040

KNOWN RANGE:



PREDICTED HABITAT:



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

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

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

Data Download: http://www.basic.ncsu.edu/segap/datazip/region/vert/rBOTU_se00.zip

PROTECTION STATUS:

Reported on March 14, 2011

Federal Status: LT, SAT

State Status: CT (E), DE (E), GA (E), MA (E), MD (T), NC (T), NJ (E), NY (E), PA (PE), SC (ST-Threatened), TN (T), VA (LE)

NS Global Rank: G3

NS State Rank: CT (S1), DC (SX), DE (S1), GA (S1), MA (S1), MD (S2), NC (S2), NJ (S1), NY (S2), PA (S2), SC (S1), TN (S1), 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	0.0	0	2.4	< 1	0.0	0	0.0	0
Status 2	0.0	0	34.6	< 1	0.0	0	0.0	0
Status 3	0.0	0	1,772.5	< 1	0.0	0	20.3	< 1
Status 4	0.0	0	0.0	0	0.0	0	0.0	0
Total	0.0	0	1,809.5	< 1	0.0	0	20.3	< 1
	US Dept. of Energy		US Nat. Park Service		NOAA		Other Federal Lands	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	493.7	< 1	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	281.0	< 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	774.6	< 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	10.1	< 1	73.8	< 1	0.0	0
Status 3	263.8	< 1	183.7	< 1	148.1	< 1	18.8	< 1
Status 4	0.0	0	0.0	0	21.8	< 1	0.0	0
Total	263.8	< 1	193.8	< 1	243.6	< 1	18.8	< 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	0.0	0	17.2	< 1	0.0	0	0.0	0
Status 3	0.0	0	0.0	0	0.9	< 1	0.0	0
Status 4	0.0	0	0.0	0	12.6	< 1	0.0	0
Total	0.0	0	17.2	< 1	13.5	< 1	0.0	0
	Private Land - No Res.		Water		Overall Total			
	ha	%	ha	%	ha	%		
Status 1	0.0	0	0.0	0	496.1	< 1		
Status 2	0.0	0	0.0	0	135.6	< 1		
Status 3	0.0	0	0.0	0	2,689.0	2		
Status 4	243,962.7	98	266.0	< 1	244,284.8	98		
Total	243,962.7	98	266.0	< 1	247,605.6	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: Bog turtles are generally rare throughout their range (Wilson 1995). Habitat for this species is typically characterized as sedge-dominated, wet meadows with little or no canopy, such as spagnum bogs, calcareous fens, meadow bogs, wet cow pastures, and shrub swamps (Bury 1979, Palmer & Braswell 1995, NatureServe 2005). In the southeast, bog turtles prefer spring-fed wetlands (i.e. fens), or slow-flowing water with underlying substrate of soft mud and rock (Bury 1979, Ernst et al. 1994). Generally, they occupy sites with very shallow standing water and are not found on large, flat floodplains of major rivers or streams (Bury 1979). Amy Silvano 6Jul05

Ecosystem Classifiers: Acidic Swamps, shrub/scrub, depressional. Then Pasture/hay & grasslands where they intersect with wet vegetation.

****ALL SELECTED MU's ARE PREDOMINATELY NON-MAPPABLE SMALL PATCH SYSTEMS - NWI's for this species range are fully attributed so we may be able to model this species using NWI data instead. Amy Silvano 6Jul05.

Elevation Mask: < 1400m

Hydrography Mask:

Freshwater Only

Slow Current Only

Utilizes flowing water features with buffer of 120m from selected water features.

Utilizes open water features with buffer of 120m from selected water features.

Utilizes wet vegetation features with buffer of unlimited into selected vegetation features.

Selected Map Units:

Functional Group	Map Unit Name
Anthropogenic	Pasture/Hay
Anthropogenic	Successional Grassland/Herbaceous
Anthropogenic	Successional Grassland/Herbaceous (Other)
Anthropogenic	Successional Grassland/Herbaceous (Utility Swath)
Wetlands	Central Interior Highlands and Appalachian Sinkhole and Depression Pond
Wetlands	North-Central Appalachian Acidic Swamp
Wetlands	North-Central Appalachian Seepage Fen
Wetlands	Southern and Central Appalachian Bog and Fen
Wetlands	Southern Appalachian Seepage Wetland
Wetlands	Southern Piedmont Seepage Wetland
Wetlands	Southern Piedmont/Ridge and Valley Upland Depression Swamp

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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.