



SOUTHEAST GAP ANALYSIS PROJECT



Species Modeling Report

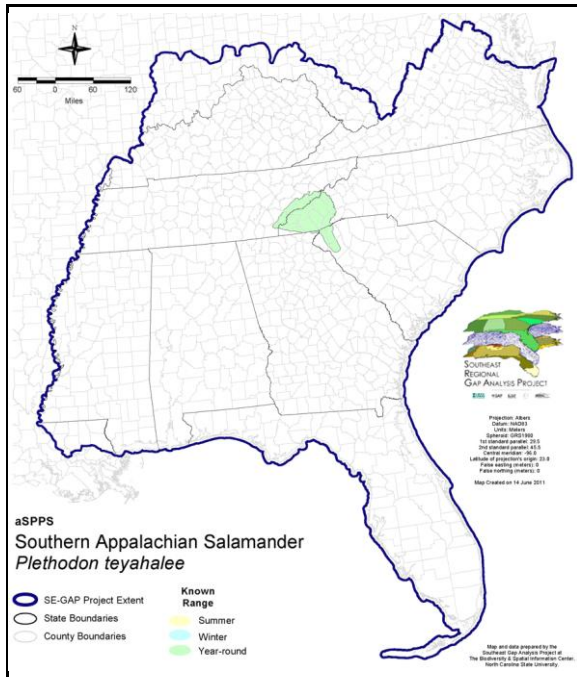
Southern Appalachian Salamander

Plethodon teyahalee

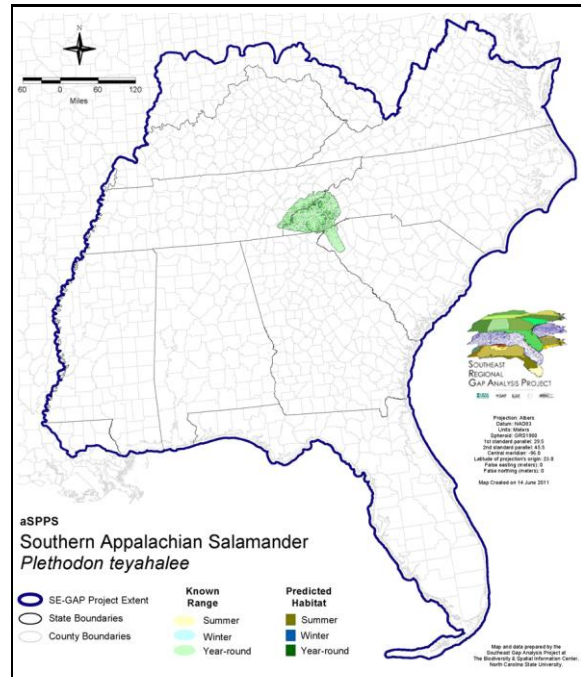
Taxa: Amphibian
 Order: Caudata
 Family: Plethodontidae

SE-GAP Spp Code: **aSPPS**
 ITIS Species Code: 208294
 NatureServe Element Code: AAAAD12300

KNOWN RANGE:



PREDICTED HABITAT:



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

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

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

Data Download: http://www.basic.ncsu.edu/segap/datazip/region/vert/aSPPS_se00.zip

PROTECTION STATUS:

Reported on March 14, 2011

Federal Status: ---
 State Status: ---
 NS Global Rank: G3
 NS State Rank: GA (S2), NC (S3?), SC (SNR), TN (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	0.0	0	2,860.8	< 1	0.0	0	0.0	0
Status 2	0.0	0	6,775.6	2	0.0	0	0.0	0
Status 3	0.0	0	93,778.5	24	0.0	0	0.0	0
Status 4	0.0	0	0.0	0	0.0	0	0.0	0
Total	0.0	0	103,414.9	27	0.0	0	0.0	0
	US Dept. of Energy		US Nat. Park Service		NOAA		Other Federal Lands	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	58,185.8	15	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	1,153.6	< 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	59,339.4	15	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	1,318.8	< 1	448.4	< 1	0.0	0
Status 3	3,643.7	< 1	746.9	< 1	699.0	< 1	0.0	0
Status 4	0.0	0	0.0	0	0.0	0	0.0	0
Total	3,643.7	< 1	2,065.7	< 1	1,147.4	< 1	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	110.3	< 1	0.0	0	0.0	0
Status 3	0.0	0	0.0	0	17.3	< 1	0.0	0
Status 4	0.0	0	0.0	0	25.0	< 1	0.0	0
Total	0.0	0	110.3	< 1	42.3	< 1	0.0	0
	Private Land - No Res.		Water		Overall Total			
	ha	%	ha	%	ha	%		
Status 1	0.0	0	0.0	0	61,046.6	16		
Status 2	0.0	0	0.0	0	8,653.1	2		
Status 3	0.0	0	0.0	0	100,039.1	50		
Status 4	123,078.7	32	12.1	< 1	123,115.8	32		
Total	123,078.7	32	12.1	< 1	292,854.5	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: Southern Appalachian salamanders are restricted to the southern Appalachian Mountains south and west of the French Broad River and are known to occur as far south as Rabun County, Georgia. They are more abundant in hardwood forests than in pine or hemlock (Wilson 1995). These salamanders are typically encountered at high elevations (up to 1550 m (Petranka 1998)), where they shelter under leaf litter, decaying logs or rocks. Populations may be concentrated toward the species' upper elevational limits in densely forested settings, coves and other mesic situations (Wilson 1995). All stages of their life history are terrestrial. Stacy Smith, 15April05

Elevation Mask: < 1550m

Selected Map Units:

Functional Group	Map Unit Name
Forest/Woodland	Appalachian Hemlock-Hardwood Forest
Forest/Woodland	Central and Southern Appalachian Montane Oak Forest
Forest/Woodland	Central and Southern Appalachian Northern Hardwood Forest
Forest/Woodland	Central and Southern Appalachian Spruce-Fir Forest
Forest/Woodland	Southern and Central Appalachian Cove Forest
Forest/Woodland	Southern Piedmont Mesic Forest

- CITATIONS:** Carr, D. E. 1996. Morphological variation among species and populations of salamanders in the PLETHODON GLUTINOSUS complex. *Herpetologica* 52:56-65.
- Hairston, N. G., Sr. 1993. On the validity of the name TEYAHALEE as applied to a member of the PLETHODON GLUTINOSUS complex (Caudata:Plethodontidae):a new name. *Brimleyana* 18:65-69.
- Hairston, N. G., Sr., et al. 1992. The dynamics of two hybrid zones in Appalachian salamanders of the genus PLETHODON. *Evolution* 46:930-938.
- Highton, R. 1987. PLETHODON TEYAHALEE. *Cat. Am. Amph. Rep.* 401.1-401.2.
- Highton, R. and R.B. Peabody. 2000. Geographic protein variation and speciation in salamanders of the Plethodon jordani and Plethodon glutinosus complexes in the Southern Appalachian mountains with the description of four new species. Pages 31-94 in Br
- Highton, R., G. C. Maha, and L. R. Maxson. 1989. Biochemical evolution in the slimy salamanders of the PLETHODON GLUTINOSUS complex in the eastern United States. *Illinois Biological Monographs* 57:1-153.
- Nishikawa, K. C. 1990. Intraspecific spatial relationships of two species of terrestrial salamanders. *Copeia* 1990:418-426.
- Petranka, J. W. 1998. Salamanders of the United States and Canada. Washington DC: Smithsonian Inst. Press.
- Wilson, L. A. 1995. The Land Manager's Guide to the amphibians and reptiles of the South. Chapel Hill, NC: The Nature Conservancy.

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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.