



SOUTHEAST GAP ANALYSIS PROJECT



Species Modeling Report

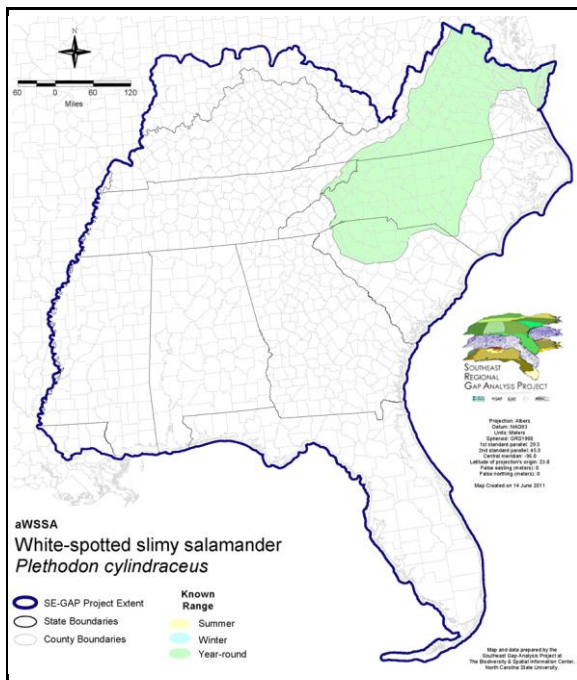
White-spotted slimy salamander

Plethodon cylindraceus

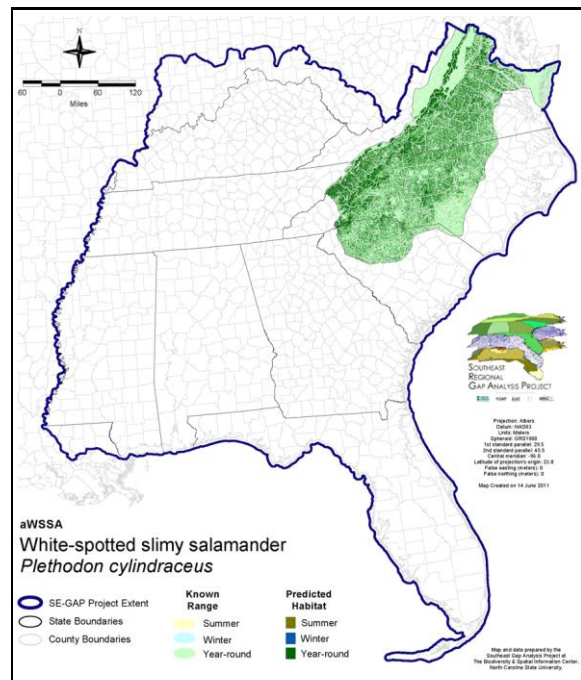
Taxa: Amphibian
 Order: Caudata
 Family: Plethodontidae

SE-GAP Spp Code: **aWSSA**
 ITIS Species Code: 208283
 NatureServe Element Code: AAAAD12410

KNOWN RANGE:



PREDICTED HABITAT:



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

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

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

Data Download: http://www.basic.ncsu.edu/segap/datazip/region/vert/aWSSA_se00.zip

PROTECTION STATUS:

Reported on March 14, 2011

Federal Status: ---
 State Status: ---
 NS Global Rank: G5
 NS State Rank: NC (S5?), SC (SNR), VA (S5), WV (S4)

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	442.1	< 1	9,696.0	< 1	0.0	0	0.0	0
Status 2	2,147.0	< 1	52,410.2	< 1	0.0	0	3,430.3	< 1
Status 3	171.6	< 1	273,866.9	4	0.0	0	47,868.3	< 1
Status 4	2.9	< 1	0.0	0	0.0	0	0.0	0
Total	2,763.5	< 1	335,973.1	5	0.0	0	51,298.6	< 1
	US Dept. of Energy		US Nat. Park Service		NOAA		Other Federal Lands	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	73,738.0	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	34,162.9	< 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	107,900.9	2	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	4,120.9	< 1	27,665.6	< 1	94.7	< 1
Status 3	0.0	0	37,760.7	< 1	28,597.6	< 1	19,825.0	< 1
Status 4	0.0	0	0.0	0	6,812.2	< 1	0.0	0
Total	0.0	0	41,881.6	< 1	63,075.3	< 1	19,919.7	< 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	8,399.0	< 1	0.0	0	0.0	0
Status 3	0.0	0	0.0	0	0.0	0	1,703.6	< 1
Status 4	0.0	0	0.0	0	110.1	< 1	0.0	0
Total	0.0	0	8,399.0	< 1	110.1	< 1	1,703.6	< 1
	Private Land - No Res.		Water		Overall Total			
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	0.0	0	83,876.0 1			
Status 2	0.0	0	0.0	0	98,267.5 1			
Status 3	0.0	0	0.0	0	443,956.7 11			
Status 4	5,689,846.3	86	1,056.9	< 1	5,704,637.6 86			
Total	5,689,846.3	86	1,056.9	< 1	6,330,737.8 100			

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: White-spotted slimy salamanders may be found under logs or in leaf litter in forested habitats from near sea level to about 1500m (Petranka 1998). They may be common in shaded hardwood forests, wooded floodplains, and on the slopes of shaded ravines, and may also occasionally inhabit pinewoods in locations near hardwood bottomlands. Optimal habitat is moist and has a ground layer of humus and leaf litter. They can also be found in dry to swampy hammock lands (Carr and Goin 1955). They are absent from high elevation coniferous spruce-fir forests in the mountains (King 1939, Martof et al. 1980). They retreat underground during dry or freezing weather. Breeding tends to be biennial in the north and at higher elevations and annual in the south and at low elevations. They lay up to about 3-dozen eggs (late spring in north, August-September in south) in rotting logs, underground, or in rock crevices. The larval stage passed in egg with female in attendance. Hatching occurs in late summer in the north and in the fall in the south. Stacy Smith, 19April05

Elevation Mask: < 1500m

Selected Map Units:

Functional Group	Map Unit Name
Forest/Woodland	Appalachian Hemlock-Hardwood Forest
Forest/Woodland	Atlantic Coastal Plain Dry and Dry-Mesic Oak Forest
Forest/Woodland	Atlantic Coastal Plain Mesic Hardwood and Mixed Forest
Forest/Woodland	Atlantic Coastal Plain Northern Mixed Oak-Heath Forest
Forest/Woodland	Central Appalachian Oak and Pine Forest
Forest/Woodland	Southern and Central Appalachian Cove Forest
Forest/Woodland	Southern and Central Appalachian Oak Forest
Forest/Woodland	Southern and Central Appalachian Oak Forest - Xeric
Forest/Woodland	Southern Piedmont Dry Oak-(Pine) Forest - Hardwood Modifier
Forest/Woodland	Southern Piedmont Dry Oak-(Pine) Forest - Mixed Modifier
Forest/Woodland	Southern Piedmont Dry Oak-Heath Forest - Hardwood Modifier
Forest/Woodland	Southern Piedmont Dry Oak-Heath Forest - Mixed Modifier
Forest/Woodland	Southern Piedmont Dry Oak-Heath Forest - Virginia/Pitch Pine Modifier
Forest/Woodland	Southern Piedmont Mesic Forest
Wetlands	Atlantic Coastal Plain Brownwater Stream Floodplain Forest
Wetlands	Atlantic Coastal Plain Small Brownwater River Floodplain Forest
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 Piedmont Large Floodplain Forest - Forest Modifier
Wetlands	Southern Piedmont Large Floodplain Forest - Herbaceous Modifier
Wetlands	Southern Piedmont Small Floodplain and Riparian Forest

CITATIONS: Carr, A. F., Jr., and C. J. Goin. 1955. A guide to the reptiles, amphibians and fresh-water fishes of Florida. Univ. Florida Press, Gainesville. 341pp.

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

King, W. 1939. A survey of the herpetology of Great Smoky Mountains National Park (Tennessee). Am. Midl. Nat. 21:531-582.

Martof, B. S., W. M. Palmer, J. R. Bailey, and J. R. Harrison, III. 1980. Amphibians and reptiles of the Carolinas and Virginia. University of North Carolina Press, Chapel Hill, North Carolina. 264 pp.

Petranka, J. W. 1998. Salamanders of the United States and Canada. Washington DC: Smithsonian Inst. Press.