



SOUTHEAST GAP ANALYSIS PROJECT



Species Modeling Report

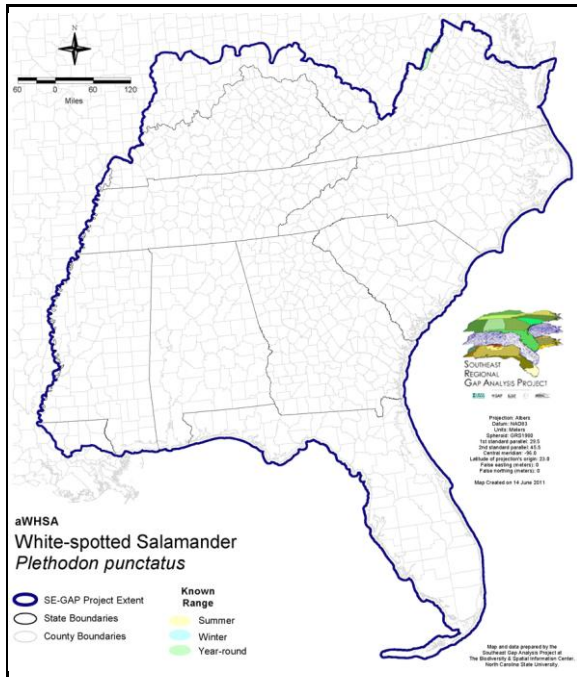
White-spotted Salamander

Plethodon punctatus

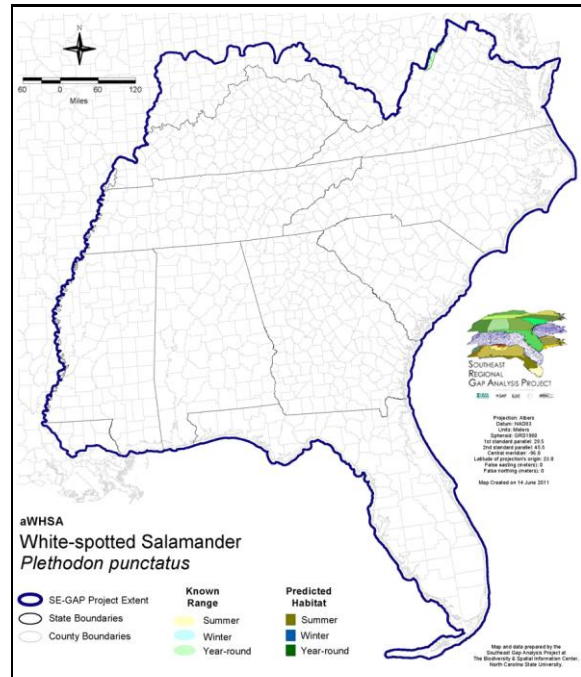
Taxa: Amphibian
 Order: Caudata
 Family: Plethodontidae

SE-GAP Spp Code: **aWWSA**
 ITIS Species Code: 173666
 NatureServe Element Code: AAAAD12140

KNOWN RANGE:



PREDICTED HABITAT:



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

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

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

Data Download: http://www.basic.ncsu.edu/segap/datazip/region/vert/aWWSA_se00.zip

PROTECTION STATUS:

Reported on March 14, 2011

Federal Status: ---
 State Status: VA (SC)
 NS Global Rank: G3
 NS State Rank: VA (S2), WV (S1)

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 | 207.1 | 4 | 0.0 | 0 | 0.0 | 0 |
| Status 2 | 0.0 | 0 | 3,400.7 | 65 | 0.0 | 0 | 0.0 | 0 |
| Status 3 | 0.0 | 0 | 615.0 | 12 | 0.0 | 0 | 0.0 | 0 |
| Status 4 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 |
| Total | 0.0 | 0 | 4,222.7 | 81 | 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 | 0.0 | 0 | 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 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 |
| Status 4 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 |
| Total | 0.0 | 0 | 0.0 | 0 | 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 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 |
| Status 3 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 |
| Status 4 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 |
| Total | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 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 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 |
| Status 3 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 |
| Status 4 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 |
| Total | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 |
| | Private Land - No Res. | | Water | | Overall Total | | | |
| | ha | % | ha | % | ha | % | ha | % |
| Status 1 | 0.0 | 0 | 0.0 | 0 | 207.1 | 4 | | |
| Status 2 | 0.0 | 0 | 0.0 | 0 | 3,400.7 | 65 | | |
| Status 3 | 0.0 | 0 | 0.0 | 0 | 615.0 | 23 | | |
| Status 4 | 406.1 | 8 | 0.0 | 0 | 406.1 | 8 | | |
| Total | 406.1 | 8 | 0.0 | 0 | 4,628.8 | 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: The white-spotted salamander occurs in the Great North and Shenandoah Mountains in north-central Virginia and portions of northeastern West Virginia. Highton (1972) suggests that this species was derived from isolated *P. wehrlei* stock. They are found on north facing slopes above 810 m. They are associated with mixed deciduous forest interspersed with Virginia pine and hemlock and numerous rock outcrops (Green and Pauley 1987). Also, mixed hardwood stands, hardwoods mixed with eastern hemlock, and hemlock stands. They are most abundant in high-elevation old-growth forests with many downed logs and in areas with an abundance of surface rocks (Mitchell 1991), including talus. They occur under rocks and logs or in burrows during the day. This species is a terrestrial breeder. Stacy Smith, 15April05

Elevation Mask: > 810m and < 2500m

Selected Map Units:

| Functional Group | Map Unit Name |
|------------------|---|
| Forest/Woodland | Allegheny-Cumberland Dry Oak Forest and Woodland |
| Forest/Woodland | Allegheny-Cumberland Dry Oak Forest and Woodland - Hardwood Modifier |
| 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 | Central Appalachian Oak and Pine Forest |
| Forest/Woodland | Northeastern Interior Dry Oak Forest - Mixed Modifier |
| Forest/Woodland | South-Central Interior Mesophytic 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-Heath Forest - Virginia/Pitch Pine Modifier |
| Rock Outcrop | Central Interior Calcareous Cliff and Talus |
| Rock Outcrop | North-Central Appalachian Circumneutral Cliff and Talus |

- CITATIONS:** Green, N. B., and T. K. Pauley. 1987. Amphibians and reptiles in West Virginia. University of Pittsburg Press, Pittsburg, Pennsylvania. xi + 241 pp.
- Highton, R. 1972. Distributional interactions among eastern North American salamanders of the genus *Plethodon*. Virginia Polytechnic Institute Research Division Monograph 4:139-188.
- Mitchell, J. C. 1991. Amphibians and reptiles. Pages 411-76 in K. Terwilliger (coordinator). Virginia's Endangered Species: Proceedings of a Symposium. McDonald and Woodward Publishing Company, Blacksburg, Virginia.
- Petranka, J. W. 1998. Salamanders of the United States and Canada. Washington DC: Smithsonian Inst. Press.

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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.