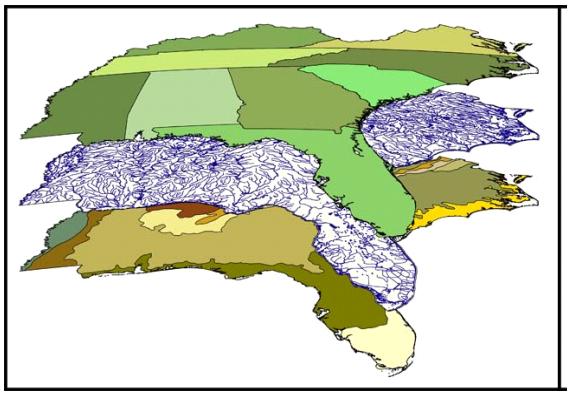


SOUTHEAST GAP ANALYSIS PROJECT

USGS gap BaSIC NARSAL

Species Modeling Report

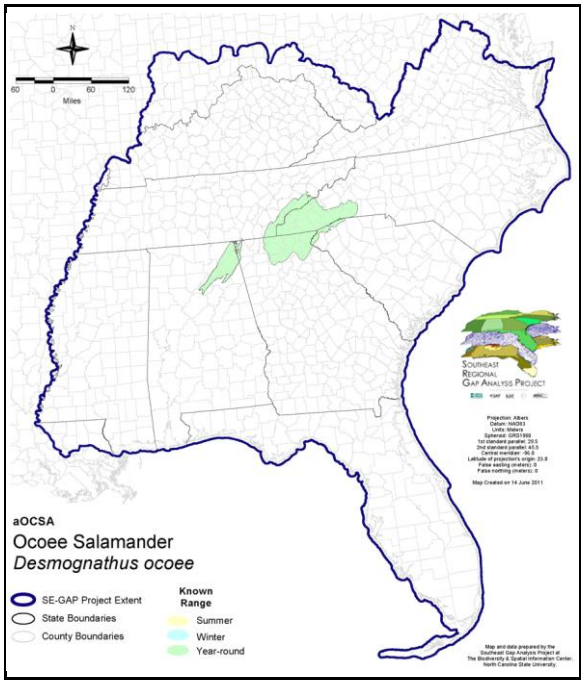
Ocoee Salamander

Desmognathus ocoee

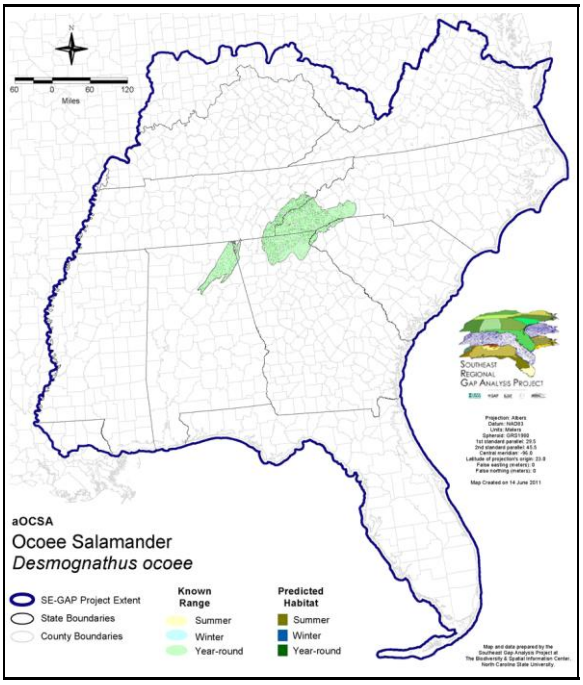
Taxa: Amphibian
Order: Caudata
Family: Plethodontidae

SE-GAP Spp Code: **aOCSA**
ITIS Species Code: 550243
NatureServe Element Code: AAAAD03140

KNOWN RANGE:



PREDICTED HABITAT:



Range Map Link: http://www.basic.ncsu.edu/segap/datazip/maps/SE_Range_aOCSA.pdf
Predicted Habitat Map Link: http://www.basic.ncsu.edu/segap/datazip/maps/SE_Dist_aOCSA.pdf
GAP Online Tool Link: http://www.gapserve.ncsu.edu/segap/segap/index2.php?species=aOCSA
Data Download: http://www.basic.ncsu.edu/segap/datazip/region/vert/aOCSA_se00.zip

PROTECTION STATUS:

Reported on March 14, 2011

Federal Status: ---
State Status: ---
NS Global Rank: G5
NS State Rank: AL (S2), GA (S5), NC (S3S4), SC (SNR), TN (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	2,876.8	< 1	0.0	0	0.0	0
Status 2	0.0	0	12,140.1	3	0.0	0	0.0	0
Status 3	0.0	0	82,194.8	21	470.4	< 1	0.0	0
Status 4	0.0	0	0.0	0	0.0	0	0.0	0
Total	0.0	0	97,211.7	25	470.4	< 1	0.0	0

	US Dept. of Energy		US Nat. Park Service		NOAA		Other Federal Lands	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	34,140.2	9	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	282.7	< 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	34,422.8	9	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	67.7	< 1	0.0	0	0.0	0
Status 2	0.0	0	2,701.0	< 1	2,549.3	< 1	0.0	0
Status 3	2,461.1	< 1	1,682.6	< 1	396.4	< 1	529.6	< 1
Status 4	0.0	0	0.0	0	235.6	< 1	0.0	0
Total	2,461.1	< 1	4,451.2	1	3,181.2	< 1	529.6	< 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	529.5	< 1	0.0	0	0.0	0
Status 3	0.0	0	53.9	< 1	14.4	< 1	0.0	0
Status 4	0.0	0	0.0	0	0.0	0	0.0	0
Total	0.0	0	583.4	< 1	14.4	< 1	0.0	0

	Private Land - No Res.		Water			Overall Total	
	ha	%	ha	%		ha	%
Status 1	0.0	0	0.0	0		37,084.6	9
Status 2	0.0	0	0.0	0		17,919.8	5
Status 3	0.0	0	0.0	0		88,085.9	43
Status 4	169,975.8	43	7.0	< 1		170,454.1	43
Total	169,975.8	43	7.0	< 1		313,544.3	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: Requiring a habitat of mesic woodlands, they are may be observed near springs, wet rockfaces and talus, in seepage areas, and in forest floor habitats in and about the vicinities of rocky streams. They can be found in hardwood and mixed forest and are characteristic inhabitants of spruce-fir forests. Populations at low elevations are concentrated in or near seepages or streams, whereas those at higher elevations (generally >1370m) are often abundant on the forest floor far from running water (Petranka). They are most abundant at the edges of escarpments where streams fall to lower elevations and are found less often in streams or seepage in level areas. Within its range, the salamander occurs at mid and high elevations, but lower elevation limits are not well defined.
Lower elevation populations (those generally below 4500 ft) have been found in stream gorges of the Hiwasee, Ocoee, and Tugaloo Rivers, and are closely associated with moist stream and seepage borders (Petranka 1998). Eggs are laid in wet rock crevices or under rocks, logs, or moss in seepage areas or near small streams. In western North Carolina, larval period extends 9-10 months (Bruce 1989). Sexual maturity is attained in 3-4 years in males, 4-5 years in females (Castanet et al. 1996, Herpetologica 52:160-171). S. Smith 18Feb05

Hydrography Mask:

Freshwater Only

Utilizes flowing water features with buffer of 60m from selected water features.

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	Allegheny-Cumberland Dry Oak Forest and Woodland - Pine 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	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 Appalachian Low Mountain Pine Forest
Forest/Woodland	Southern Appalachian Montane Pine Forest and Woodland
Forest/Woodland	Southern Interior Low Plateau Dry-Mesic Oak Forest
Forest/Woodland	Southern Interior Low Plateau Dry-Mesic Oak Forest - Evergreen 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
Forest/Woodland	Southern Ridge and Valley Dry Calcareous Forest
Forest/Woodland	Southern Ridge and Valley Dry Calcareous Forest - Hardwood Modifier
Forest/Woodland	Southern Ridge and Valley Dry Calcareous Forest - Pine Modifier
Rock Outcrop	Southern Appalachian Montane Cliff
Rock Outcrop	Southern Appalachian Spray Cliff
Rock Outcrop	Southern Interior Acid Cliff
Rock Outcrop	Southern Interior Calcareous Cliff
Wetlands	South-Central Interior Small Stream and Riparian
Wetlands	Southern Appalachian Seepage Wetland

CITATIONS:

Bruce, R. C. 1989. Life history of the salamander DESMOGNATHUS MONTICOLA, with a comparison of the larval periods of D. MONTICOLA and D. OCHROPHAEUS. Herpetologica 45:144-155.

Castanet, J., H. Francillon-Vieillot, and R. C. Bruce. 1996. Age estimation in desmognathine salamanders assessed by skeletochronology. Herpetologica 52:160-171.

Hairston, N. G., Sr., and R. H. Wiley. 1993. No decline in salamander (Amphibia:Caudata) populations:a twenty-year study in the southern Aplachians. Brimleyana 18:59-64.

Huheey, J. E., and R. A. Brandon. 1973. Rock-face populations of the mountain salamander, Desmognathus ochrophaeus, in North Carolina. Ecological Monographs 43:59-77.

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

Petranka, J. W., M. E. Eldridge, and K. E. Haley. 1993. Effects of timber harvesting on southern Appalachian salamanders. Conservation Biology 7(2):363-370.

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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.