

SOUTHEAST GAP ANALYSIS PROJECT



Species Modeling Report

Imitator Salamander

Desmognathus imitator

Taxa: Amphibian

Order: Caudata

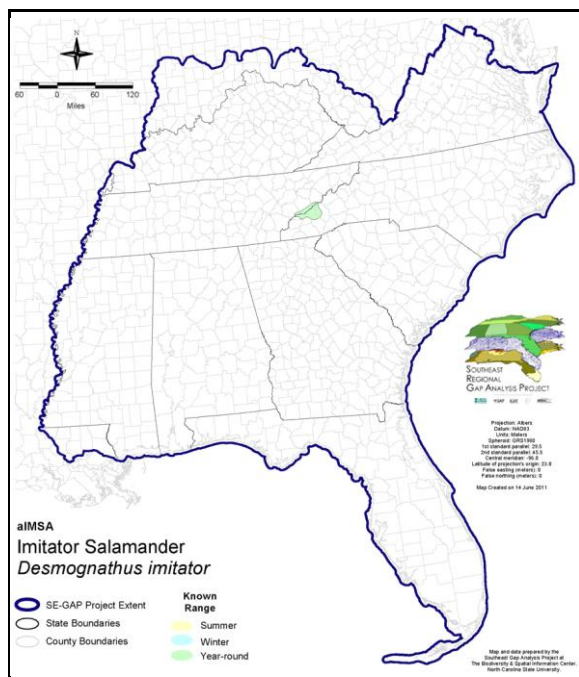
Family: Plethodontidae

SE-GAP Spp Code: **aIMSA**

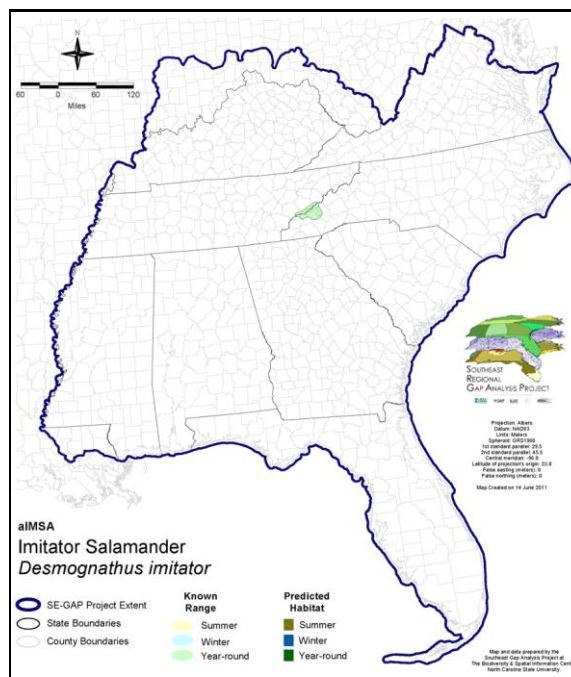
ITIS Species Code: 173639

NatureServe Element Code: AAAAD03050

KNOWN RANGE:



PREDICTED HABITAT:



Range Map Link: http://www.basinc.ncsu.edu/segap/datazip/maps/SE_Range_aIMSA.pdf

Predicted Habitat Map Link: http://www.basinc.ncsu.edu/segap/datazip/maps/SE_Dist_aIMSA.pdf

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

Data Download: http://www.basinc.ncsu.edu/segap/datazip/region/vert/aIMSA_se00.zip

PROTECTION STATUS:

Reported on March 14, 2011

Federal Status: ---

State Status: NC (W2)

NS Global Rank: G3G4

NS State Rank: NC (S3), 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	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	137.7	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	137.7	1	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	7,717.2	79	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	48.0	< 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	7,765.2	79	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	407.7	4	0.0	0	0.0	0	0.0	0
Status 4	0.0	0	0.0	0	0.0	0	0.0	0
Total	407.7	4	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 %			
Status 1	0.0	0	0.0	0	7,717.2 79			
Status 2	0.0	0	0.0	0	0.0 0			
Status 3	0.0	0	0.0	0	593.4 7			
Status 4	1,352.0	14	0.0	0	1,352.0 14			
Total	1,352.0	14	0.0	0	9,662.6 100			

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: *Desmognathus imitator* is primarily found in cool, moist, mid- to high-elevation hardwood and red spruce-Fraser fir forests. These salamanders will occupy borders of seeps and springs, as well as the moist forest floor and wet rock surfaces in the vicinity of streams (Petranka 1998). Intermittent stream heads and moist cove reaches just above permanent streams are also suitable as habitat (Martof et al. 1980). This salamander is endemic to Great Smoky mountains of Tennessee and North Carolina, with populations possibly occurring in the neighboring Plott Balsam mountains in North Carolina (Petranka 1998). S. Smith
18Feb05

Elevation Mask: > 900m and < 2024m

Hydrography Mask:

Freshwater Only

Utilizes flowing water features with buffer of 30m from selected water features.

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 and Central Appalachian Oak Forest
Forest/Woodland	Southern and Central Appalachian Oak Forest - Xeric
Rock Outcrop	Southern Appalachian Montane Cliff
Rock Outcrop	Southern Appalachian Spray Cliff
Wetlands	Southern and Central Appalachian Bog and Fen
Wetlands	Southern Appalachian Seepage Wetland

CITATIONS: Behler, J. L., and F. W. King. 1979. The Audubon Society field guide to North American reptiles and amphibians. Alfred A. Knopf, New York. 719 pp.

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.

Tilley, S. C. 1985. *Desmognathus imitator*. Cat. Am. Amph.Rep. 359.1-359.2.

For more information:: SE-GAP Analysis Project / BaSIC
127 David Clark Labs
Dept. of Biology, NCSU
Raleigh, NC 27695-7617
(919) 513-2853
www.basic.ncsu.edu/segap

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.