



# SOUTHEAST GAP ANALYSIS PROJECT



## Species Modeling Report

### Cave Salamander

*Eurycea lucifuga*

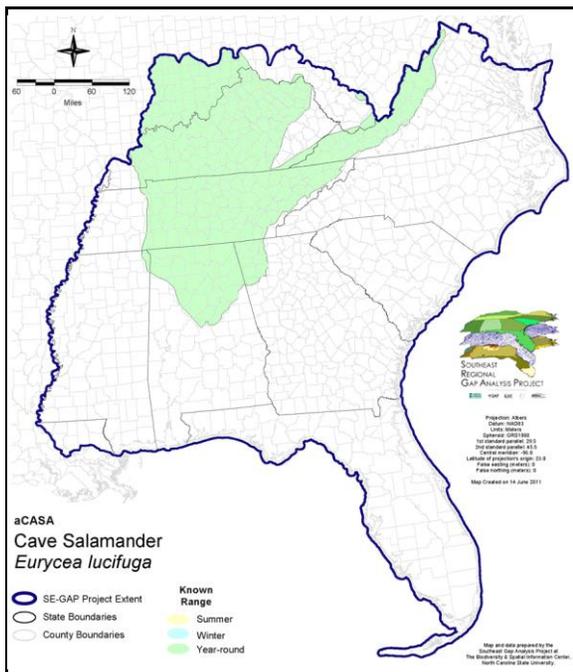
Taxa: Amphibian  
 Order: Caudata  
 Family: Plethodontidae

SE-GAP Spp Code: **aCASA**

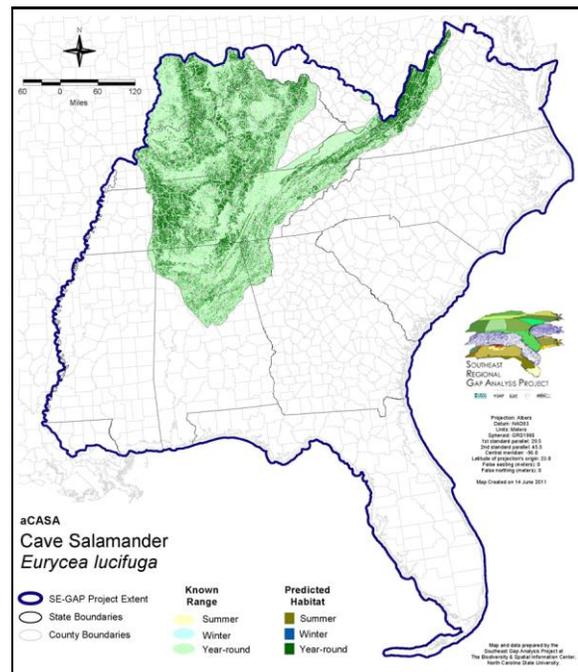
ITIS Species Code: 173691

NatureServe Element Code: AAAAD05050

#### KNOWN RANGE:



#### PREDICTED HABITAT:



Range Map Link: [http://www.basic.ncsu.edu/segap/datazip/maps/SE\\_Range\\_aCASA.pdf](http://www.basic.ncsu.edu/segap/datazip/maps/SE_Range_aCASA.pdf)

Predicted Habitat Map Link: [http://www.basic.ncsu.edu/segap/datazip/maps/SE\\_Dist\\_aCASA.pdf](http://www.basic.ncsu.edu/segap/datazip/maps/SE_Dist_aCASA.pdf)

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

Data Download: [http://www.basic.ncsu.edu/segap/datazip/region/vert/aCASA\\_se00.zip](http://www.basic.ncsu.edu/segap/datazip/region/vert/aCASA_se00.zip)

#### PROTECTION STATUS:

Reported on March 14, 2011

Federal Status: ---

State Status: KS (E), KY (N), MS (LE), OH (E)

NS Global Rank: G5

NS State Rank: AL (S4), AR (S4), GA (S4), IL (S4), IN (S4), KS (S1), KY (S5), MO (S5), MS (S1), OH (S2), OK (S3), TN (S5), VA (S4), WV (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	1,386.2	< 1	846.2	< 1	0.0	0	0.0	0
Status 2	3,012.0	< 1	132,976.4	2	0.0	0	0.0	0
Status 3	1,606.4	< 1	427,051.6	6	25,423.4	< 1	53,853.0	< 1
Status 4	21.1	< 1	0.0	0	0.0	0	0.0	0
Total	6,025.7	< 1	560,874.2	8	25,423.4	< 1	53,853.0	< 1
	US Dept. of Energy		US Nat. Park Service		NOAA		Other Federal Lands	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	13,810.3	< 1	0.0	0	0.0	0
Status 2	0.0	0	185.8	< 1	0.0	0	0.0	0
Status 3	4,380.5	< 1	15,845.0	< 1	0.0	0	62.6	< 1
Status 4	0.0	0	0.0	0	0.0	0	0.0	0
Total	4,380.5	< 1	29,841.1	< 1	0.0	0	62.6	< 1
	Native Am. Reserv.		State Park/Hist. Park		State WMA/Gameland		State Forest	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	659.2	< 1	51.6	< 1	0.0	0
Status 2	0.0	0	2,606.2	< 1	107,753.2	1	3.4	< 1
Status 3	0.0	0	21,582.9	< 1	10,089.9	< 1	4,231.2	< 1
Status 4	0.0	0	0.0	0	3,772.4	< 1	0.0	0
Total	0.0	0	24,848.3	< 1	121,667.0	2	4,234.6	< 1
	State Coastal Reserve		ST Nat.Area/Preserve		Other State Lands		Private Cons. Easemt.	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	5,487.0	< 1	0.0	0	0.0	0
Status 2	0.0	0	12,648.8	< 1	1.2	< 1	434.6	< 1
Status 3	0.0	0	1,070.1	< 1	1,402.4	< 1	0.0	0
Status 4	0.0	0	1.6	< 1	14.5	< 1	0.0	0
Total	0.0	0	19,207.5	< 1	1,418.0	< 1	434.6	< 1
	Private Land - No Res.		Water		Overall Total			
	ha	%	ha	%	ha	%		
Status 1	0.0	0	0.0	0	22,240.4	< 1		
Status 2	0.0	0	0.0	0	259,621.6	3		
Status 3	0.0	0	0.0	0	566,599.1	13		
Status 4	6,179,652.5	83	2,250.5	< 1	6,189,463.7	83		
Total	6,179,652.5	83	2,250.5	< 1	7,037,924.8	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: Cave salamanders occur in and around caves and in areas with karst topography (Mount 1984). Adults are often abundant in forested habitats in or near rock walls or ledges with springs at their bases and extensive cracks that allow access to underground passages (Petranka 1998). Primarily associated with limestone. They are typically found inhabiting crevices in steep bluffs, rock outcrops, rocky mesic ravines, and the twilight zone of caves (Redmond 1996). Stacy Smith, 15April05

### 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	East Gulf Coastal Plain Northern Dry Upland Hardwood Forest
Forest/Woodland	East Gulf Coastal Plain Northern Loess Bluff Forest
Forest/Woodland	East Gulf Coastal Plain Northern Loess Plain Oak-Hickory Upland - Hardwood Modifier
Forest/Woodland	East Gulf Coastal Plain Northern Mesic Hardwood Forest
Forest/Woodland	Northeastern Interior Dry Oak Forest - Mixed Modifier
Forest/Woodland	Northeastern Interior Dry Oak Forest-Hardwood Modifier
Forest/Woodland	South-Central Interior Mesophytic Forest
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 Ridge and Valley Dry Calcareous Forest
Forest/Woodland	Southern Ridge and Valley Dry Calcareous Forest - Hardwood Modifier
Rock Outcrop	Central Interior Acidic Cliff and Talus
Rock Outcrop	Central Interior Calcareous Cliff and Talus
Rock Outcrop	Southern Appalachian Granitic Dome
Rock Outcrop	Southern Appalachian Montane Cliff
Rock Outcrop	Southern Appalachian Rocky Summit
Rock Outcrop	Southern Interior Calcareous Cliff
Rock Outcrop	Southern Interior Sinkhole Wall

- CITATIONS:** Mount, R.H, (ed). 1984. Vertebrate Wildlife of Alabama, Alabama Agricultural Experiment Station, Auburn University, 44 pp.
- Petranka, J. W. 1998. Salamanders of the United States and Canada. Washington DC: Smithsonian Inst. Press.
- Redmond, W. H., and A. F. Scott. 1996. Atlas of amphibians in Tennessee. The Center for Field Biology, Austin Peay State University, Miscellaneous Publication Number 12. v + 94 pp.

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This data was compiled and/or developed by the Southeast GAP Analysis Project at The Biodiversity and Spatial Information Center, North Carolina State University.