



# SOUTHEAST GAP ANALYSIS PROJECT



## Species Modeling Report

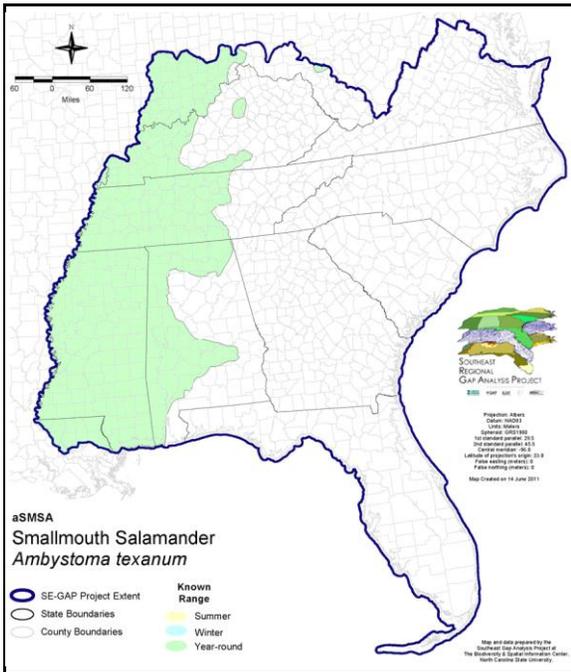
### Smallmouth Salamander

*Ambystoma texanum*

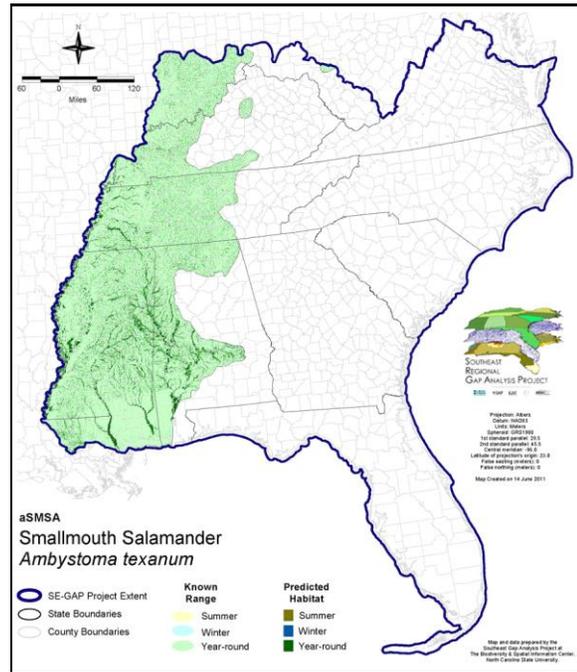
Taxa: Amphibian  
 Order: Caudata  
 Family: Ambystomatidae

SE-GAP Spp Code: **aSMSA**  
 ITIS Species Code: 173605  
 NatureServe Element Code: AAAAA01130

#### KNOWN RANGE:



#### PREDICTED HABITAT:



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

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

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

Data Download: [http://www.basic.ncsu.edu/segap/datazip/region/vert/aSMSA\\_se00.zip](http://www.basic.ncsu.edu/segap/datazip/region/vert/aSMSA_se00.zip)

#### PROTECTION STATUS:

Reported on March 14, 2011

Federal Status: ---

State Status: KY (N), MI (E), MS (Non-game species in need of management), NE (NC), ON (END)

NS Global Rank: G5

NS State Rank: AL (S3), AR (S5), IA (S3), IL (S5), IN (S4), KS (S5), KY (S5), LA (S5), MI (S1), MO (S5), MS (S5), NE (S1), OH (SNR), OK (S5), TN (S5), TX (S5), WV (S1), ON (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 | 7,483.0                | < 1 | 128.3                 | < 1 | 0.0                  | 0   | 0.0                   | 0   |
| Status 2 | 55,691.6               | 1   | 3,887.1               | < 1 | 0.0                  | 0   | 533.3                 | < 1 |
| Status 3 | 419.9                  | < 1 | 74,261.2              | 2   | 7,201.6              | < 1 | 12,066.7              | < 1 |
| Status 4 | 0.0                    | 0   | 0.0                   | 0   | 0.0                  | 0   | 0.0                   | 0   |
| Total    | 63,594.5               | 2   | 78,276.5              | 2   | 7,201.6              | < 1 | 12,600.0              | < 1 |
|          | 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   | 5.3                   | < 1 | 0.0                  | 0   | 0.0                   | 0   |
| Status 3 | 0.0                    | 0   | 2,488.8               | < 1 | 0.0                  | 0   | 558.2                 | < 1 |
| Status 4 | 0.0                    | 0   | 0.0                   | 0   | 0.0                  | 0   | 0.0                   | 0   |
| Total    | 0.0                    | 0   | 2,494.1               | < 1 | 0.0                  | 0   | 558.2                 | < 1 |
|          | Native Am. Reserv.     |     | State Park/Hist. Park |     | State WMA/Gameland   |     | State Forest          |     |
|          | ha                     | %   | ha                    | %   | ha                   | %   | ha                    | %   |
| Status 1 | 0.0                    | 0   | 27.0                  | < 1 | 10.5                 | < 1 | 0.0                   | 0   |
| Status 2 | 0.0                    | 0   | 65.1                  | < 1 | 76,393.5             | 2   | 0.0                   | 0   |
| Status 3 | 2,323.2                | < 1 | 3,488.8               | < 1 | 47,454.9             | 1   | 412.5                 | < 1 |
| Status 4 | 0.0                    | 0   | 0.0                   | 0   | 3,049.7              | < 1 | 0.0                   | 0   |
| Total    | 2,323.2                | < 1 | 3,580.8               | < 1 | 126,908.7            | 3   | 412.5                 | < 1 |
|          | State Coastal Reserve  |     | ST Nat.Area/Preserve  |     | Other State Lands    |     | Private Cons. Easemt. |     |
|          | ha                     | %   | ha                    | %   | ha                   | %   | ha                    | %   |
| Status 1 | 0.0                    | 0   | 1,550.9               | < 1 | 0.0                  | 0   | 0.0                   | 0   |
| Status 2 | 695.3                  | < 1 | 10,274.8              | < 1 | 3.1                  | < 1 | 297.3                 | < 1 |
| Status 3 | 0.0                    | 0   | 666.3                 | < 1 | 276.5                | < 1 | 11,282.9              | < 1 |
| Status 4 | 0.0                    | 0   | 0.0                   | 0   | 0.0                  | 0   | 0.0                   | 0   |
| Total    | 695.3                  | < 1 | 12,491.9              | < 1 | 279.5                | < 1 | 11,580.1              | < 1 |
|          | Private Land - No Res. |     | Water                 |     | Overall Total        |     |                       |     |
|          | ha                     | %   | ha                    | %   | ha                   | %   |                       |     |
| Status 1 | 0.0                    | 0   | 0.0                   | 0   | 9,199.6              | < 1 |                       |     |
| Status 2 | 0.0                    | 0   | 0.0                   | 0   | 147,846.2            | 4   |                       |     |
| Status 3 | < 0.1                  | < 1 | 0.0                   | 0   | 162,901.4            | 6   |                       |     |
| Status 4 | 3,645,124.6            | 90  | 6,645.6               | < 1 | 3,657,869.6          | 90  |                       |     |
| Total    | 3,645,124.7            | 90  | 6,645.6               | < 1 | 3,977,816.9          | 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: Habitat includes low floodplain forests and other moist lowland sites near forested areas (Mount 1984), especially those associated with wetlands in or adjoining floodplains. Many adults appear to remain within in 50-60m of their breeding ponds. Forest management and stream modification are changing these habitats. Occurs in the TN Valley and western third of the Coastal Plain. Many of the populations may be disjunct. Possibly occurs in the Ridge and Valley region. In the western part of its range, *A. texanum* has been found in upland ponds, sluggish streams in tallgrass prairie, and oak-hickory-pine forest (Petranka 1998). S. Smith 18Feb05

**Hydrography Mask:**

Freshwater Only

Slow Current Only

Utilizes flowing water features with buffers of 60m from and 30m into selected water features.

Utilizes wet vegetation features with buffer of unlimited into selected vegetation features.

**Selected Map Units:**

| Functional Group | Map Unit Name   |
|------------------|---|
| Anthropogenic    | Pasture/Hay   |
| Forest/Woodland  | Allegheny-Cumberland Dry Oak Forest and Woodland                                    |
| Forest/Woodland  | Allegheny-Cumberland Dry Oak Forest and Woodland - Hardwood Modifier                |
| Forest/Woodland  | Central Appalachian Oak and Pine Forest   |
| Forest/Woodland  | East Gulf Coastal Plain Interior Shortleaf Pine-Oak Forest - Mixed Modifier         |
| Forest/Woodland  | East Gulf Coastal Plain Northern Dry Upland Hardwood Forest                         |
| Forest/Woodland  | East Gulf Coastal Plain Northern Loess Plain Oak-Hickory Upland - Hardwood Modifier |
| 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 and Central Appalachian Cove Forest  |
| Forest/Woodland  | Southern and Central Appalachian Oak 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 Piedmont Dry Oak-Heath Forest - Virginia/Pitch Pine Modifier               |
| Forest/Woodland  | Southern Ridge and Valley Dry Calcareous Forest                                     |
| Forest/Woodland  | Southern Ridge and Valley Dry Calcareous Forest - Hardwood Modifier                 |
| Water            | Open Water (Fresh)  |
| Wetlands         | East Gulf Coastal Plain Interior Shrub Bog  |
| Wetlands         | East Gulf Coastal Plain Large River Floodplain Forest - Forest Modifier             |
| Wetlands         | East Gulf Coastal Plain Large River Floodplain Forest - Herbaceous Modifier         |
| Wetlands         | East Gulf Coastal Plain Near-Coast Pine Flatwoods - Offsite Hardwood Modifier       |
| Wetlands         | East Gulf Coastal Plain Near-Coast Pine Flatwoods - Scrub/Shrub Understory Modifier |
| Wetlands         | East Gulf Coastal Plain Northern Seepage Swamp                                      |
| Wetlands         | East Gulf Coastal Plain Small Stream and River Floodplain Forest                    |
| Wetlands         | East Gulf Coastal Plain Southern Loblolly-Hardwood Flatwoods                        |
| Wetlands         | East Gulf Coastal Plain Treeless Savanna and Wet Prairie                            |
| Wetlands         | Lower Mississippi River Bottomland and Floodplain Forest                            |
| Wetlands         | Lower Mississippi River Bottomland Depressions - Forest Modifier                    |
| Wetlands         | Lower Mississippi River Bottomland Depressions - Herbaceous Modifier                |
| Wetlands         | Mississippi River Low Floodplain (Bottomland) Forest                                |
| Wetlands         | Mississippi River Riparian Forest   |
| Wetlands         | South-Central Interior Large Floodplain - Forest Modifier                           |
| Wetlands         | South-Central Interior Large Floodplain - Herbaceous Modifier                       |
| Wetlands         | South-Central Interior Small Stream and Riparian                                    |
| Wetlands         | South-Central Interior/Upper Coastal Plain Wet Flatwoods                            |
| Wetlands         | Southern Appalachian Seepage Wetland  |

|          |  |
|----------|--|
| Wetlands | Southern Coastal Plain Hydric Hammock            |
| Wetlands | Southern Coastal Plain Nonriverine Basin Swamp   |
| Wetlands | Southern Coastal Plain Nonriverine Cypress Dome  |
| Wetlands | Southern Coastal Plain Seepage Swamp and Baygall |

**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.

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](http://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.