



SOUTHEAST GAP ANALYSIS PROJECT



Species Modeling Report

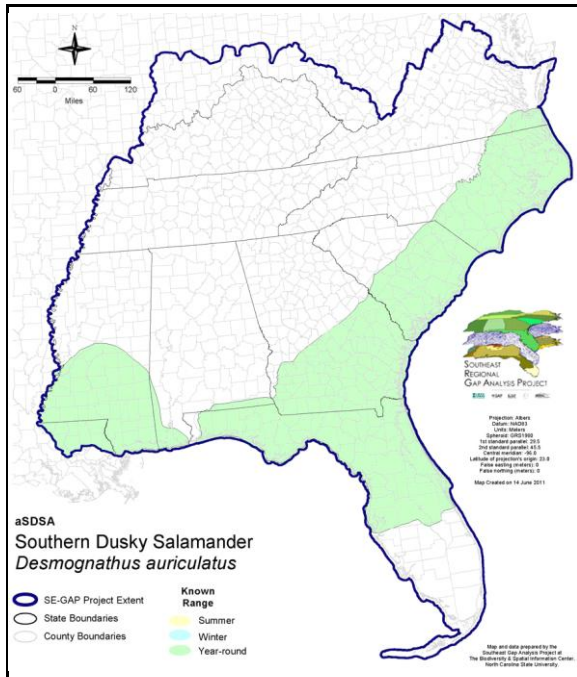
Southern Dusky Salamander

Desmognathus auriculatus

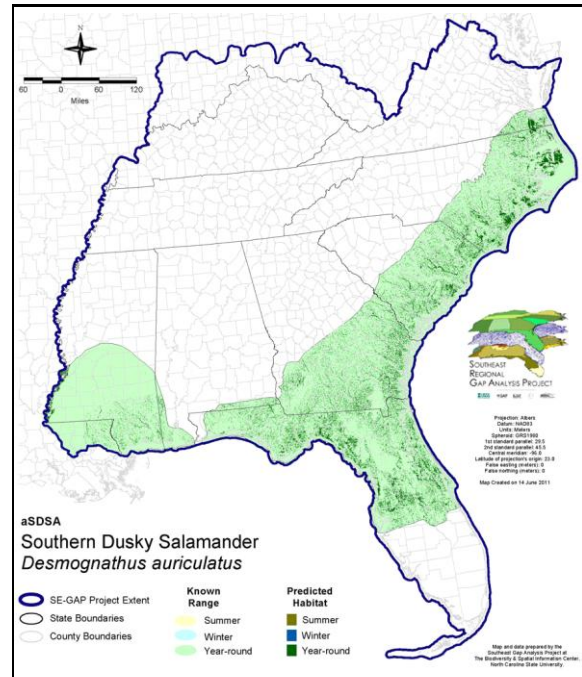
Taxa: Amphibian
 Order: Caudata
 Family: Plethodontidae

SE-GAP Spp Code: **aSDSA**
 ITIS Species Code: 173637
 NatureServe Element Code: AAAAD03020

KNOWN RANGE:



PREDICTED HABITAT:



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

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

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

Data Download: http://www.basic.ncsu.edu/segap/datazip/region/vert/aSDSA_se00.zip

PROTECTION STATUS:

Reported on March 14, 2011

Federal Status: ---

State Status: MS (Non-game species in need of management)

NS Global Rank: G5

NS State Rank: AL (S2), FL (S1S2), GA (S2), LA (S4), MS (S4S5), NC (S5), SC (SNR), TX (S5), VA (S4)

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	54,880.6	1	5,107.3	< 1	0.0	0	0.0	0
Status 2	97,283.6	2	20,518.9	< 1	0.0	0	0.0	0
Status 3	564.0	< 1	168,918.4	3	0.0	0	71,136.7	1
Status 4	17.0	< 1	< 0.1	< 1	0.0	0	2.1	< 1
Total	152,745.2	3	194,544.7	4	0.0	0	71,138.8	1
	US Dept. of Energy		US Nat. Park Service		NOAA		Other Federal Lands	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	175.4	< 1	8.6	< 1	4,575.0	< 1
Status 2	0.0	0	1,522.8	< 1	560.8	< 1	0.0	0
Status 3	8,173.8	< 1	11.7	< 1	0.0	0	571.1	< 1
Status 4	0.0	0	0.0	0	0.0	0	0.0	0
Total	8,173.8	< 1	1,709.9	< 1	569.4	< 1	5,146.0	< 1
	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	90.5	< 1	136,521.8	3	0.0	0
Status 3	2.4	< 1	166,538.0	3	41,708.0	< 1	87,067.8	2
Status 4	0.0	0	< 0.1	< 1	1,652.9	< 1	4.3	< 1
Total	2.4	< 1	166,628.6	3	179,882.6	4	87,072.1	2
	State Coastal Reserve		ST Nat.Area/Preserve		Other State Lands		Private Cons. Easemt.	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	250.8	< 1	0.0	0	0.0	0
Status 2	9,832.1	< 1	24,226.2	< 1	0.0	0	198.9	< 1
Status 3	0.0	0	9,550.2	< 1	4,030.2	< 1	38,866.6	< 1
Status 4	0.0	0	0.0	0	254.3	< 1	0.0	0
Total	9,832.1	< 1	34,027.2	< 1	4,284.5	< 1	39,065.5	< 1
	Private Land - No Res.		Water		Overall Total			
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	0.0	0	64,997.7 1			
Status 2	0.0	0	0.0	0	290,755.7 6			
Status 3	89.7	< 1	0.0	0	597,228.6 15			
Status 4	3,812,263.8	77	4,390.1	< 1	3,820,220.6 77			
Total	3,812,353.6	77	4,390.1	< 1	4,773,202.6 100			

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: Characteristically found in or around margins of slowly moving or stagnant bodies of water with mucky, acidic soils. Have been found in springs, swamps, cypress heads, acid bogs and sphagnum, sloughs, steepheads, small tributaries, and mud-bottomed pools in floodplains (Petranka and Mount 1975). Bottomland Hardwood forests offer optimal habitats for this species. Uncommon in pine forest. This salamander is found in moderate to dense leaf litter and dead & decaying wood during all life stages. Occurs at the edges of escarpments where streams cascade or gradually descend to lower elevations (Mount 1986). In South Carolina, found in flatwoods swamp (Hall 1994). It shuns sand areas and one seldom finds populations along sandy-bottomed streams or in other moist habitats where sand predominates (Folkerts 1971). Restricted to the Coastal Plain. Inhabits broad spectrum of habitats when *D. fuscus* not present; when *D. fuscus* present, *D. auriculatus* populations are found downstream and not in steepheads; thus the occurrence of *D. fuscus* in a drainage will predict whether *D. auriculatus* is present in the upper reaches of a stream or restricted to downstream environments. Breeds September-October. Lays clutch of 9-20 eggs. Eggs guarded by female. Eggs are laid under or in logs or in depressions under moss or other cover near water. Larvae hatch in early fall, metamorphose in late spring after aquatic period. 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 open water features with buffer of 60m from selected water features.

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

Selected Map Units:

Functional Group	Map Unit Name
Forest/Woodland	Atlantic Coastal Plain Mesic Hardwood and Mixed Forest
Water	Open Water (Fresh)
Wetlands	Atlantic Coastal Plain Blackwater Stream Floodplain Forest - Forest Modifier
Wetlands	Atlantic Coastal Plain Blackwater Stream Floodplain Forest - Herbaceous Modifier
Wetlands	Atlantic Coastal Plain Clay-Based Carolina Bay Forested Wetland
Wetlands	Atlantic Coastal Plain Clay-Based Carolina Bay Herbaceous Wetland
Wetlands	Atlantic Coastal Plain Nonriverine Swamp and Wet Hardwood Forest - Taxodium/Nyssa Modifier
Wetlands	Atlantic Coastal Plain Nonriverine Swamp and Wet Hardwood Forest - Oak Dominated Modifier
Wetlands	Atlantic Coastal Plain Northern Basin Peat Swamp
Wetlands	Atlantic Coastal Plain Northern Basin Swamp and Wet Hardwood Forest
Wetlands	Atlantic Coastal Plain Peatland Pocosin
Wetlands	Atlantic Coastal Plain Sandhill Seep
Wetlands	Atlantic Coastal Plain Small Blackwater River Floodplain Forest
Wetlands	Atlantic Coastal Plain Streamhead Seepage Swamp, Pocosin, and Baygall
Wetlands	Central Florida Herbaceous Seep
Wetlands	East Gulf Coastal Plain Interior Shrub Bog
Wetlands	East Gulf Coastal Plain Northern Seepage Swamp
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	South Florida Cypress Dome
Wetlands	South Florida Freshwater Slough and Gator Hole
Wetlands	South Florida Willow Head
Wetlands	Southern Coastal Plain Blackwater River Floodplain Forest
Wetlands	Southern Coastal Plain Herbaceous Seepage Bog
Wetlands	Southern Coastal Plain Hydric Hammock
Wetlands	Southern Coastal Plain Nonriverine Basin Swamp
Wetlands	Southern Coastal Plain Nonriverine Cypress Dome

- 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.
- Folkerts, G.W. 1971. Notes on South Carolina salamanders. Journal of the Elisha Mitchell Scientific Society 87:206-208.
- Hall, R. J. 1994. Herpetofaunal Diversity of the Four Holes Swamp, South Carolina. Washington, D.C.: U.S. Dept. of the Interior.
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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.