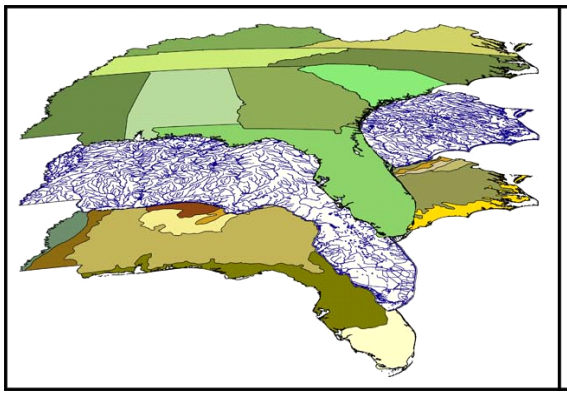


SOUTHEAST GAP ANALYSIS PROJECT

USGS gap BaSIC NARSAL

Species Modeling Report

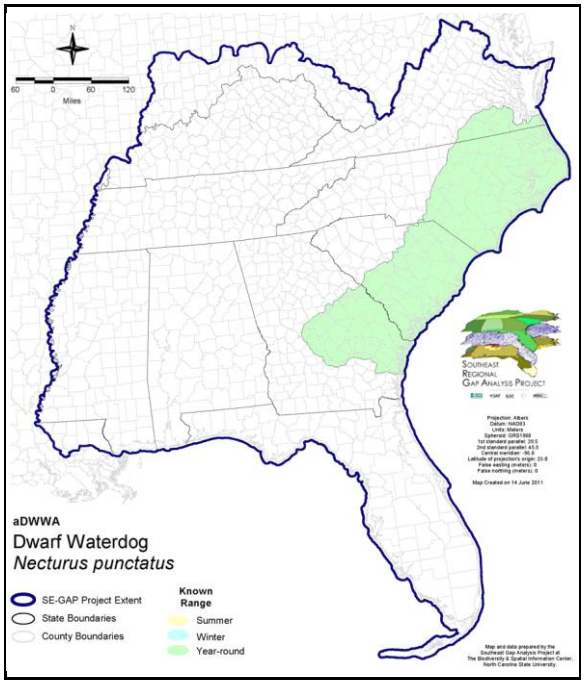
Dwarf Waterdog

Necturus punctatus

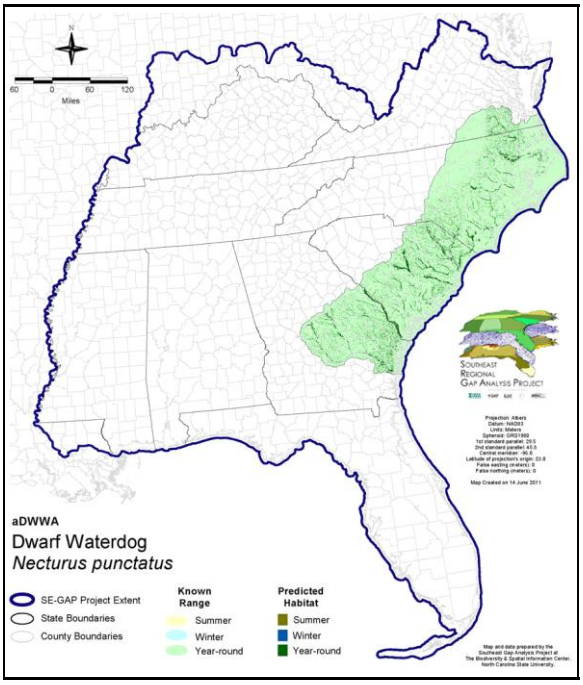
Taxa: Amphibian
Order: Caudata
Family: Proteidae

SE-GAP Spp Code: **aDWWA**
ITIS Species Code: 173625
NatureServe Element Code: AAAAE01050

KNOWN RANGE:



PREDICTED HABITAT:



Range Map Link: http://www.basic.ncsu.edu/segap/datazip/maps/SE_Range_aDWWA.pdf
Predicted Habitat Map Link: http://www.basic.ncsu.edu/segap/datazip/maps/SE_Dist_aDWWA.pdf
GAP Online Tool Link: http://www.gapserve.ncsu.edu/segap/segap/index2.php?species=aDWWA
Data Download: http://www.basic.ncsu.edu/segap/datazip/region/vert/aDWWA_se00.zip

PROTECTION STATUS:

Reported on March 14, 2011

Federal Status: ---
State Status: ---
NS Global Rank: G4
NS State Rank: GA (S2), NC (S4), SC (SNR), VA (S2S3)

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	7,980.9	< 1	1,592.5	< 1	0.0	0	0.0	0
Status 2	21,086.6	1	702.0	< 1	0.0	0	0.7	< 1
Status 3	78.8	< 1	15,177.6	< 1	0.0	0	33,081.1	2
Status 4	10.4	< 1	0.0	0	0.0	0	0.0	0
Total	29,156.6	2	17,472.1	< 1	0.0	0	33,081.8	2

	US Dept. of Energy		US Nat. Park Service		NOAA		Other Federal Lands	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	8,167.3	< 1	0.0	0	0.0	0
Status 2	0.0	0	0.0	0	87.6	< 1	0.0	0
Status 3	14,334.1	< 1	97.7	< 1	0.0	0	0.4	< 1
Status 4	0.0	0	0.0	0	0.0	0	0.0	0
Total	14,334.1	< 1	8,265.0	< 1	87.6	< 1	0.4	< 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	421.6	< 1	45,504.6	3	0.0	0
Status 3	0.0	0	5,815.7	< 1	5,888.2	< 1	4,485.4	< 1
Status 4	0.0	0	0.0	0	2,179.4	< 1	0.0	0
Total	0.0	0	6,237.3	< 1	53,572.2	3	4,485.4	< 1

	State Coastal Reserve		ST Nat.Area/Preserve		Other State Lands		Private Cons. Easemt.	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	34.2	< 1	0.0	0	0.0	0
Status 2	2,540.6	< 1	12,830.4	< 1	0.0	0	0.0	0
Status 3	0.0	0	0.0	0	802.0	< 1	96.1	< 1
Status 4	0.0	0	0.0	0	580.3	< 1	0.0	0
Total	2,540.6	< 1	12,864.6	< 1	1,382.3	< 1	96.1	< 1

	Private Land - No Res.		Water		Overall Total	
	ha	%	ha	%	ha	%
Status 1	0.0	0	0.0	0	17,774.9	< 1
Status 2	0.0	0	0.0	0	83,174.0	5
Status 3	351.5	< 1	0.0	0	80,208.5	5
Status 4	1,605,886.1	89	792.8	< 1	1,611,618.1	89
Total	1,606,237.6	89	792.8	< 1	1,792,775.5	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: The dwarf waterdog is found in small and medium sized streams of the coastal plain from the fall line to the just above the tidewaters (Martof et al. 1980). These aquatic salamanders may be found in a variety of swampy habitats including slow-moving blackwater streams and creeks, and tupelo-cypress or willow oak-blackgum swamps. They have also been observed in rice fields, ditches and millponds. They thrive in larger aquatic sites of cypress and tupelo. They are not known to travel over land so movement is apparently restricted to waterway corridors. Adults congregate in leaf beds in winter. Oviposition probably occurs sometime from March-May in South Carolina (Meffe and Sheldon 1987). Eggs probably are attached to the undersides of objects in water. The hatchlings appear in fall. Paedomorphic, sexually mature in about 5 years. Juveniles burrow into bottom. S. Smith 18Feb05

Customized Model: Small to medium sized streams, millponds, forested wetlands.
Limit standing water to <5 ha.

This was selected as being unlimited FROM wet veg when I think it was supposed to be unlimited INTO wet veg. I changed it to the latter. MJR 24aug07.

Hydrography Mask:

Freshwater Only

Slow Current Only

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

Utilizes open water features with buffer of 60m into selected water features.

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

Selected Map Units:

Functional Group	Map Unit Name
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 Brownwater Stream Floodplain Forest
Wetlands	Atlantic Coastal Plain Small Blackwater River Floodplain Forest
Wetlands	Atlantic Coastal Plain Small Brownwater River Floodplain Forest
Wetlands	Atlantic Coastal Plain Streamhead Seepage Swamp, Pocosin, and Baygall
Wetlands	Southern Coastal Plain Blackwater River Floodplain Forest
Wetlands	Southern Coastal Plain Seepage Swamp and Baygall
Wetlands	Southern Coastal Plain Spring-run Stream Aquatic Vegetation
Wetlands	Southern Piedmont Large Floodplain Forest - Forest Modifier
Wetlands	Southern Piedmont Large Floodplain Forest - Herbaceous Modifier

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.

Guttman, S. I., et al. 1990. An electrophoretic analysis of NECTURUS from the southeastern United States. J. Herpetol. 24:163-175.

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.

Maxson, L. R., P. E. Moler, and B. W. Mansell. 1988. Albumin evolution in salamanders of the genus NECTURUS. J. Herpetol. 22:231-235.

Meffe, G. K., and A. L. Sheldon. 1987. Habitat use by dwarf waterdogs (NECTURUS PUNCTATUS) in South Carolina streams, with life history notes. Herpetologica 43:490-496.

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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.