



SOUTHEAST GAP ANALYSIS PROJECT



Species Modeling Report

Northern Dwarf Siren

Pseudobranchius striatus

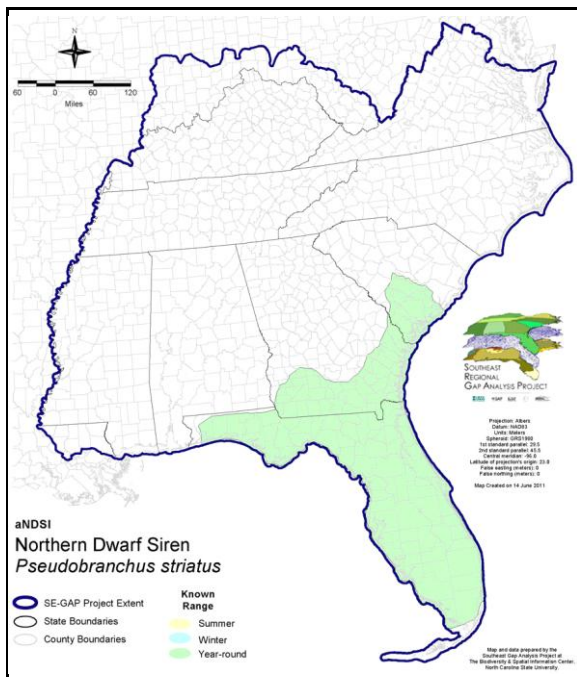
Taxa: Amphibian
 Order: Caudata
 Family: Sirenidae

SE-GAP Spp Code: **aNDSI**

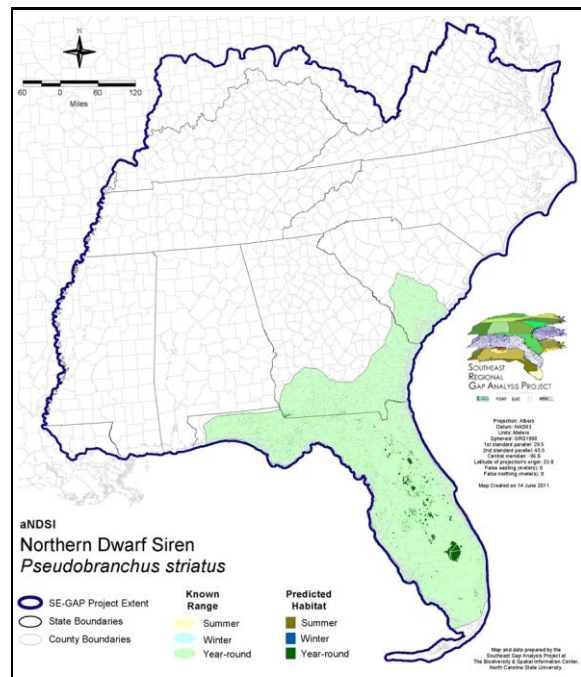
ITIS Species Code: 173738

NatureServe Element Code: AAAAG01010

KNOWN RANGE:



PREDICTED HABITAT:



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

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

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

Data Download: http://www.basic.ncsu.edu/segap/datazip/region/vert/aNDSI_se00.zip

PROTECTION STATUS:

Reported on March 14, 2011

Federal Status: ---
 State Status: SC (ST-Threatened)
 NS Global Rank: G5
 NS State Rank: FL (S5), GA (SNR), SC (S2)

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 | 443.4 | < 1 | 5.0 | < 1 | 0.0 | 0 | 0.0 | 0 |
| Status 2 | 804.9 | < 1 | 989.8 | < 1 | 0.0 | 0 | < 0.1 | < 1 |
| Status 3 | 0.2 | < 1 | 13,030.5 | 6 | 0.0 | 0 | 3,930.3 | 2 |
| Status 4 | 0.5 | < 1 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 |
| Total | 1,248.9 | < 1 | 14,025.2 | 6 | 0.0 | 0 | 3,930.4 | 2 |
| | US Dept. of Energy | | US Nat. Park Service | | NOAA | | Other Federal Lands | |
| | ha | % | ha | % | ha | % | ha | % |
| Status 1 | 0.0 | 0 | 55.6 | < 1 | 1.4 | < 1 | 311.4 | < 1 |
| Status 2 | 0.0 | 0 | 147.5 | < 1 | 35.1 | < 1 | 0.7 | < 1 |
| Status 3 | 0.0 | 0 | 1,032.9 | < 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 | 1,236.1 | < 1 | 36.5 | < 1 | 312.1 | < 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 | 9.5 | < 1 | 3,226.4 | 1 | 0.0 | 0 |
| Status 3 | 0.0 | 0 | 6,130.6 | 3 | 185.0 | < 1 | 7,642.6 | 3 |
| Status 4 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 |
| Total | 0.0 | 0 | 6,140.1 | 3 | 3,411.4 | 1 | 7,642.6 | 3 |
| | 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 | 12.7 | < 1 | 78.3 | < 1 | 0.0 | 0 | 22.1 | < 1 |
| Status 3 | 0.0 | 0 | 133.5 | < 1 | 354.2 | < 1 | 2,160.9 | < 1 |
| Status 4 | 0.0 | 0 | 0.0 | 0 | 15.6 | < 1 | 0.0 | 0 |
| Total | 12.7 | < 1 | 211.8 | < 1 | 369.8 | < 1 | 2,183.0 | < 1 |
| | Private Land - No Res. | | Water | | Overall Total | | | |
| | ha | % | ha | % | ha | % | | |
| Status 1 | 0.0 | 0 | 0.0 | 0 | 816.8 | < 1 | | |
| Status 2 | 0.0 | 0 | 0.0 | 0 | 5,327.0 | 2 | | |
| Status 3 | 6.5 | < 1 | 0.0 | 0 | 34,607.2 | 20 | | |
| Status 4 | 180,297.4 | 76 | 2,045.9 | < 1 | 182,358.8 | 77 | | |
| Total | 180,303.8 | 76 | 2,045.9 | < 1 | 223,109.7 | 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: Northern dwarf sirens are eel-like salamanders that are found in sluggish permanent and temporary freshwater habitats such as cypress ponds, domes and strands, pine flatwoods, ditches, smaller floodplain lakes, swamps, bogs, and marshes (Bishop 1947). Their habitat is usually associated with shallow, acidic water of longleaf or slash pine flatwoods. They may often be encountered among the roots of floating vegetation (especially hyacinth), the muddy bottoms of pools, or in litter at the water's edge (Ashton 1988; Duellman and Schwartz 1958). Dwarf sirens may survive periods of drought encased in dried mud. *P. striatus* is regarded as including three subspecies (*striatus*, *spheniscus*, and *lustricolus*). The taxonomic status of the various subspecies is uncertain and further study of geographic variation in *Pseudobranchius* is needed (see Moler and Kezer 1993). The Gulf Hammock subspecies (*P. s. lustricolus*) is possibly restricted to wetlands within a narrow strip of hydric hardwood hammock near the Gulf Coast. *P. s. spheniscus* is found in low areas such as ponds in pine flatwoods (Carr and Goin 1955). The eggs are found in water (Carr 1940). Stacy Smith, 3May05

Hydrography Mask:

Freshwater Only

Utilizes open water features with buffer of unlimited into selected water features.

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

Selected Map Units:

| Functional Group | Map Unit Name |
|-----------------------------------|--|
| Coastal Dune & Freshwater Wetland | Atlantic and Gulf Coastal Plain Interdunal Wetland |
| Freshwater Tidal Marsh & Wetland | Florida Big Bend Fresh-Oligohaline Tidal Marsh |
| Water | Open Water (Fresh) |
| 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 | Central Florida Herbaceous Pondshore |
| 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 Northern Depression Pondshore |
| 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 Depression Pondshore |
| Wetlands | Floridian Highlands Freshwater Marsh |
| Wetlands | South Florida Cypress Dome |
| Wetlands | South Florida Dwarf Cypress Savanna |
| Wetlands | Southern Coastal Plain Blackwater River Floodplain Forest |
| Wetlands | Southern Coastal Plain Nonriverine Basin Swamp |
| Wetlands | Southern Coastal Plain Nonriverine Cypress Dome |
| Wetlands | Southern Coastal Plain Spring-run Stream Aquatic Vegetation |

- CITATIONS:** Ashton, R. E., Jr., and P. S. Ashton. 1988. Handbook of reptiles and amphibians of Florida. Part Three. The amphibians. Windward Publ. Co., Miami.
- Bishop, S. C. 1947. Handbook of Salamanders: The Salamanders of the United States, of Canada, and of Lower California. Ithica, NY: Comstock Publishing Co..
- Carr, A. F., Jr. 1940. A contribution to the herpetology of Florida. Univ. Florida Biol. Sci. Ser. 3:1.118.
- Carr, A. F., Jr., and C. J. Goin. 1955. A guide to the reptiles, amphibians and fresh-water fishes of Florida. Univ. Florida Press, Gainesville. 341pp.
- Duellman, W. E., and A. Schwartz. 1958. Amphibians and reptiles of southern Florida. Florida State Mus. Bull. Biol. Sci. 3:181-324.
- Moler, P.E. and J. Kezer. 1993. Karyology and systematics of the salamander genus *Pseudobranchius* (Sirenidae). Copeia 1993:39-47.

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Compiled: 15 September 2011

This data was compiled and/or developed
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Center, North Carolina State University.