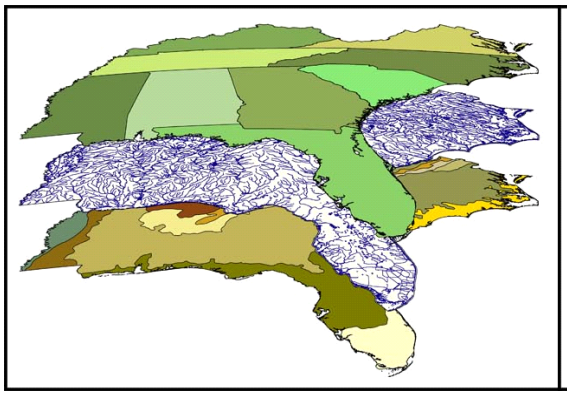


SOUTHEAST GAP ANALYSIS PROJECT

Species Modeling Report

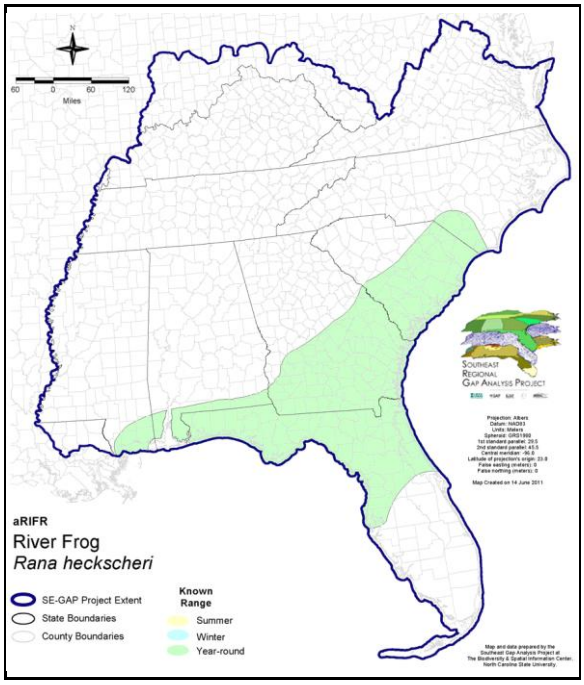
River Frog

Rana heckscheri

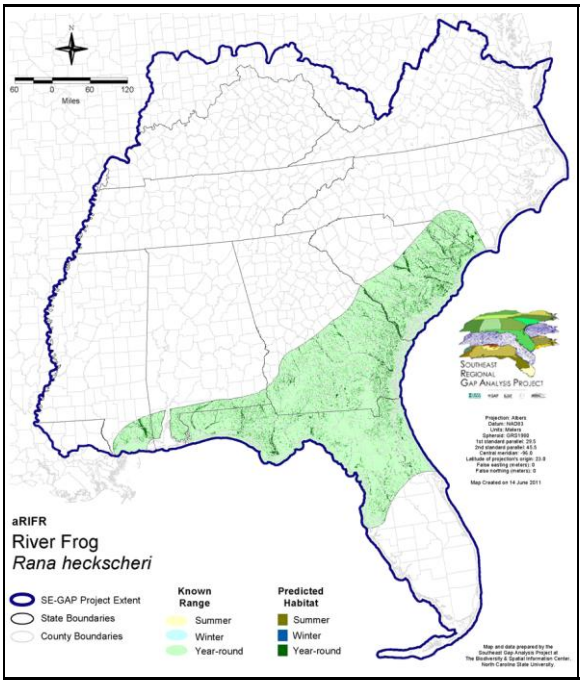
Taxa: Amphibian
Order: Anura
Family: Ranidae

SE-GAP Spp Code: **aRIFR**
ITIS Species Code: 173453
NatureServe Element Code: AAABH01120

KNOWN RANGE:



PREDICTED HABITAT:



Range Map Link: http://www.basic.ncsu.edu/segap/datazip/maps/SE_Range_aRIFR.pdf
Predicted Habitat Map Link: http://www.basic.ncsu.edu/segap/datazip/maps/SE_Dist_aRIFR.pdf
GAP Online Tool Link: http://www.gapserve.ncsu.edu/segap/segap/index2.php?species=aRIFR
Data Download: http://www.basic.ncsu.edu/segap/datazip/region/vert/aRIFR_se00.zip

PROTECTION STATUS:

Reported on March 14, 2011

Federal Status: ---
State Status: MS (Non-game species in need of management), NC (SC)
NS Global Rank: G5
NS State Rank: AL (S1), FL (SNR), GA (S5), MS (S1), NC (SH), SC (SNR)

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	7,767.0	< 1	4,460.0	< 1	0.0	0	0.0	0
Status 2	14,442.1	< 1	9,540.7	< 1	0.0	0	0.0	0
Status 3	0.4	< 1	51,975.3	2	0.0	0	37,448.8	1
Status 4	0.3	< 1	0.0	0	0.0	0	0.0	0
Total	22,209.8	< 1	65,976.0	2	0.0	0	37,448.8	1

	US Dept. of Energy		US Nat. Park Service		NOAA		Other Federal Lands	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	7,841.4	< 1	2.2	< 1	0.0	0
Status 2	0.0	0	498.2	< 1	1,029.6	< 1	0.0	0
Status 3	13,405.1	< 1	5.9	< 1	0.0	0	0.0	0
Status 4	0.0	0	0.0	0	0.0	0	0.0	0
Total	13,405.1	< 1	8,345.6	< 1	1,031.8	< 1	0.0	0

	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	425.8	< 1	87,247.2	3	0.0	0
Status 3	2.6	< 1	106,392.7	4	6,242.8	< 1	33,454.4	1
Status 4	0.0	0	0.0	0	1,438.4	< 1	4.5	< 1
Total	2.6	< 1	106,818.5	4	94,928.3	3	33,458.9	1

	State Coastal Reserve		ST Nat.Area/Preserve		Other State Lands		Private Cons. Easemt.	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	115.1	< 1	0.0	0	0.0	0
Status 2	209.3	< 1	10,872.7	< 1	0.0	0	66.7	< 1
Status 3	0.0	0	668.3	< 1	2,599.7	< 1	11,635.6	< 1
Status 4	0.0	0	0.0	0	597.2	< 1	0.0	0
Total	209.3	< 1	11,656.2	< 1	3,197.0	< 1	11,702.3	< 1

	Private Land - No Res.		Water		Overall Total	
	ha	%	ha	%	ha	%
Status 1	0.0	0	0.0	0	20,185.7	< 1
Status 2	0.0	0	0.0	0	124,332.3	5
Status 3	21.0	< 1	0.0	0	263,852.6	12
Status 4	2,265,413.4	83	2,793.7	< 1	2,271,685.6	83
Total	2,265,434.4	83	2,793.7	< 1	2,680,056.2	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: River frogs are found near standing water in hardwoods, near the swampy margins of rivers, and around the edges of shallow impoundments, such as beaver ponds, canals and swamps (Wilson 1995). Swampy environments which include titi, bay, and cypress are favored habitat (Mount 1975). Breeding and development occurs in floodplain pools and borrow pits along rivers (NC-GAP 2004) and shallow cypress pools (Lee and Sanderson 1970). River frogs lay clutches of several thousand eggs, April to August, as a surface film adhered to emergent vegetation (NatureServe 2005, Bartlett & Bartlett 1999). Tadpoles overwinter and take about a year to metamorphose (Bartlett & Bartlett 1999). Amy Silvano 12apr05.

Ecosystem Classifiers: Mesic Slope Forest, Disturbed, open water, Shrub/scrub, Depressional, Lakes/River/Pondshore, and Floodplain/Riparian. Amy Silvano 12apr05

Hydrography Mask:

Freshwater Only

Slow Current Only

Utilizes flowing water features with buffer of 30m from selected water features.

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

Utilizes wet vegetation features with buffers of 30m from and unlimited into selected vegetation features.

Selected Map Units:

Functional Group	Map Unit Name
Anthropogenic	Successional Shrub/Scrub (Clear Cut)
Anthropogenic	Successional Shrub/Scrub (Other)
Anthropogenic	Successional Shrub/Scrub (Utility Swath)
Forest/Woodland	Atlantic Coastal Plain Mesic Hardwood and Mixed Forest
Forest/Woodland	East Gulf Coastal Plain Southern Mesic Slope 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 Brownwater Stream Floodplain Forest
Wetlands	Atlantic Coastal Plain Depression Pondshore
Wetlands	Atlantic Coastal Plain Large Natural Lakeshore
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 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	Central Florida Herbaceous Pondshore
Wetlands	Central Florida Herbaceous Seep
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 Small Stream and River Floodplain Forest
Wetlands	East Gulf Coastal Plain Southern Depression Pondshore
Wetlands	South Florida Bayhead Swamp
Wetlands	South Florida Pond-Apple/Popash Slough
Wetlands	Southern Coastal Plain Blackwater River Floodplain Forest
Wetlands	Southern Coastal Plain Herbaceous Seepage Bog
Wetlands	Southern Coastal Plain Seepage Swamp and Baygall
Wetlands	Southern Coastal Plain Spring-run Stream Aquatic Vegetation

CITATIONS:

Bartlett, R.D. and P.P. Bartlett. 1999. Field guide to Florida reptiles and amphibians. Gulf Publishing Co, Houston, TX. 280 p.

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.

Conant, R. 1975. A Field Guide to Reptiles and Amphibians of Eastern and Central North America. Second Edition. Houghton Mifflin Company, Boston, Massachusetts. xvii + 429 pp.

Lee, D. S., and R. A. Sanderson. 1970. Comments on the distribution of three species of frogs in Florida. Fla. Nat. 43:23.

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.

Mount, R. H. 1975. The Reptiles and Amphibians of Alabama. Auburn University Agricultural Experiment Station, Auburn, Alabama. vii + 347 pp.

Sanders, A. E. 1984. Rana heckscheri. Cat. Am. Amph. Rep.348.1-348.2.

Wilson, L. A. 1995. The Land Manager's Guide to the amphibians and reptiles of the South. Chapel Hill, NC: The Nature Conservancy.

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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.