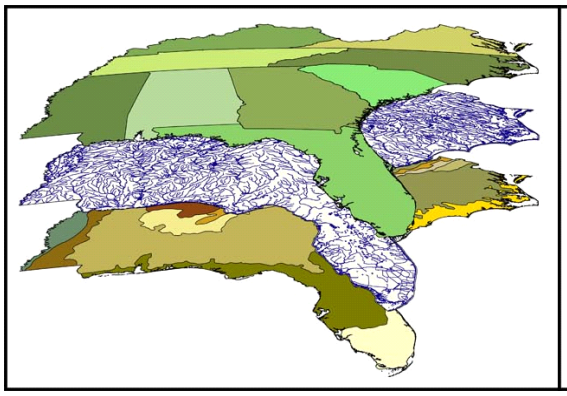


SOUTHEAST GAP ANALYSIS PROJECT

USGS science for a changing world | gap | BaSIC Biodiversity and Spatial Information Center | NARSAL

Species Modeling Report

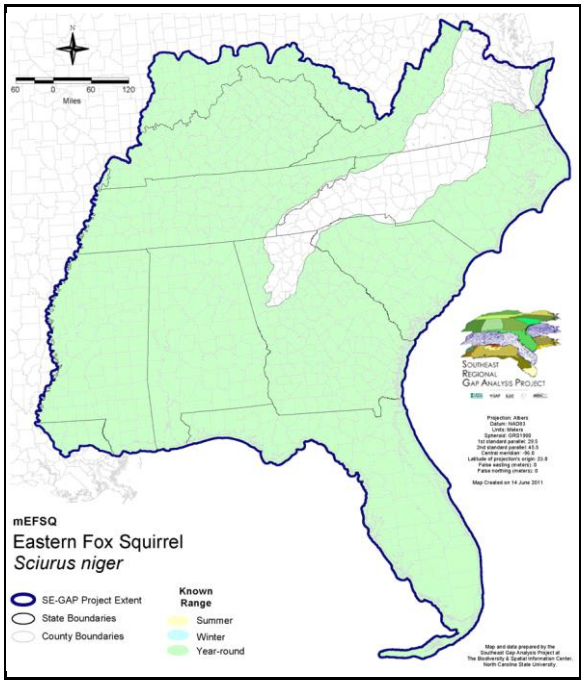
Eastern Fox Squirrel

Sciurus niger

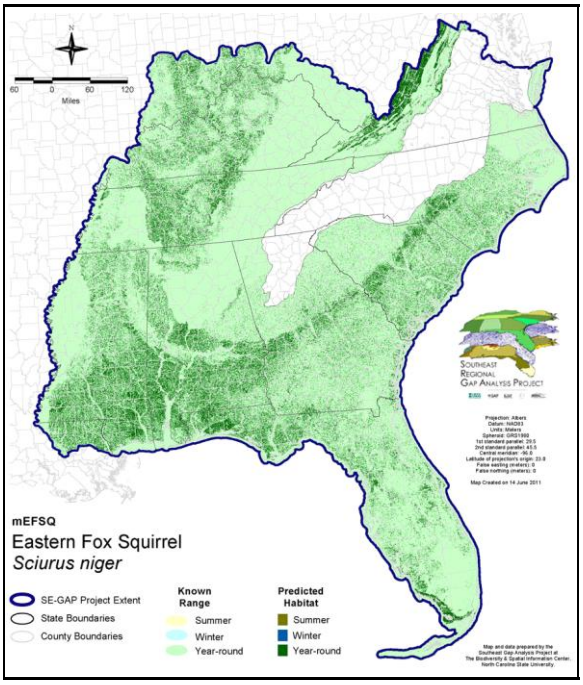
Taxa: Mammalian
Order: Rodentia
Family: Sciuridae

SE-GAP Spp Code: **mEFSQ**
ITIS Species Code: 180172
NatureServe Element Code: AMAFB07040

KNOWN RANGE:



PREDICTED HABITAT:



Range Map Link: http://www.basic.ncsu.edu/segap/datazip/maps/SE_Range_mEFSQ.pdf
Predicted Habitat Map Link: http://www.basic.ncsu.edu/segap/datazip/maps/SE_Dist_mEFSQ.pdf
GAP Online Tool Link: http://www.gapserve.ncsu.edu/segap/segap/index2.php?species=mEFSQ
Data Download: http://www.basic.ncsu.edu/segap/datazip/region/vert/mEFSQ_se00.zip

PROTECTION STATUS:

Reported on March 14, 2011

Federal Status: ---

State Status: AL (GA), KY (N), NC (SR-G), NY (GS), BC (7 (2005))

NS Global Rank: G5

NS State Rank: AL (S3S4), AR (S5), CA (SNA), CO (S4), CT (SX), DC (SH), DE (SNR), FL (S5), GA (S5), IA (S5), ID (SNA), IL (S5), IN (S4), KS (S5), KY (S5), LA (S5), MD (S4), MI (S5), MN (SNR), MO (SNR), MS (S5), MT (SNA), NC (S3), ND (SNR), NE (S5), NJ (SX), NM (SNA), NY (S3), OH (SNR), OK (S5), OR (SNA), PA (S5), SC (S4), SD (S5), TN (S5), TX (S5), VA (S4), WA (SNA), WI (S5), WV (S5), WY (SNA), BC (SNA), MB (S3), ON (SNA), SK (S3S4)

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	34,543.8	< 1	1,614.6	< 1	0.0	0	0.0	0
Status 2	40,523.6	< 1	150,973.7	< 1	0.0	0	134.2	< 1
Status 3	1,130.9	< 1	913,154.0	5	6,932.3	< 1	362,259.0	2
Status 4	27.6	< 1	0.0	0	0.0	0	0.0	0
Total	76,226.0	< 1	1,065,742.4	6	6,932.3	< 1	362,393.2	2

	US Dept. of Energy		US Nat. Park Service		NOAA		Other Federal Lands	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	177,566.4	< 1	63.5	< 1	6,886.8	< 1
Status 2	0.0	0	7,759.3	< 1	14,686.9	< 1	43.6	< 1
Status 3	32,519.6	< 1	24,501.9	< 1	0.0	0	2,651.3	< 1
Status 4	0.0	0	1.0	8	0.0	0	0.0	0
Total	32,519.6	< 1	209,829.1	1	14,750.5	< 1	9,581.7	< 1

	Native Am. Reserv.		State Park/Hist. Park		State WMA/Gameland		State Forest	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	365.4	< 1	0.0	0	0.0	0
Status 2	0.0	0	89.1	< 1	172,268.3	< 1	0.0	0
Status 3	3,929.5	< 1	161,064.7	< 1	40,371.1	< 1	172,299.2	< 1
Status 4	0.0	0	0.0	0	27,350.1	< 1	36.3	< 1
Total	3,929.5	< 1	161,519.2	< 1	239,989.5	1	172,335.5	< 1

	State Coastal Reserve		ST Nat.Area/Preserve		Other State Lands		Private Cons. Easemt.	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	2,714.0	< 1	0.0	0	0.0	0
Status 2	2,035.8	< 1	13,573.9	< 1	0.7	< 1	1,089.5	< 1
Status 3	0.0	0	7,853.1	< 1	7,572.9	< 1	31,237.0	< 1
Status 4	0.0	0	0.0	0	600.2	< 1	0.0	0
Total	2,035.8	< 1	24,141.0	< 1	8,173.8	< 1	32,326.5	< 1

	Private Land - No Res.		Water		Overall Total	
	ha	%	ha	%	ha	%
Status 1	0.0	0	0.0	0	223,754.5	1
Status 2	0.0	0	0.0	9	403,178.7	2
Status 3	53.5	< 1	1.0	< 1	1,767,531.2	15
Status 4	15,040,488.6	82	19,723.8	< 1	15,115,550.6	82
Total	15,040,542.1	82	19,724.9	< 1	17,510,014.9	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: The eastern fox squirrel is typically found on the Coastal Plain in forests with a pine component, with scattered populations on the Piedmont and in the Ridge and Valley. Their large size is advantageous in handling the large cones of longleaf pine and in traveling along the ground between widely spaced trees, food sources, and blocks of habitat (Weigl et al. 1989). They also use sandhills, turkey oak, improved pastures [savannah], golf courses, city parks, suburban areas, mangrove forest, cypress, mixed cypress/pine, and hammocks (Layne 1984 Layne et al. 1977). In the northern portions of its range (southern Appalachians and points north), oak-hickory groves are preferred. They are less abundant in forests with predominantly closed canopies where gray squirrels dominate (Webster et al. 1985). Adjacent bottomland hardwood forests may be occupied in summer and during periods of drought (see Handley 1991). Habitat structure, specifically the size and spacing of pine and oak trees, appears to be more important than the actual species composition of the habitat (Taylor 1973, Hilliard 1979, Weigl et al. 1989). Only stands with large mature trees appear to supply adequate supplies of food and nesting sites. The use of edge habitats by fox squirrels is repeatedly mentioned in the literature (Smith and Follmer 1972, Flyger and Smith 1980, Nixon et al. 1984, Kantola 1986, Weigl et al. 1989, Cox 1990). Areas greater than 25 square km are needed for viable population maintenance (Kantola in Humphrey 1992). Tree hollows are preferred for rearing young, but leaf nests are also used. In the southeastern U.S. most young are born in March-April. Sometimes there is a smaller second peak in July-August (Weigl et al. 1989). Gestation lasts 44-45 days (Moore 1957, Kantola 1986). Litter size generally averages 2-3. The earliest time of first breeding usually is the second calendar year and the maximum reproductive longevity of females is about 12-13 years. The large size and low recruitment rates of fox squirrels in the southeastern U.S. suggest relatively long life spans (Moore 1953, Weigl et al. 1989). Stacy Smith, 22June05

Selected Map Units:

Functional Group	Map Unit Name
Brackish Tidal Marsh & Wetland	South Florida Mangrove Swamp
Brackish Tidal Marsh & Wetland	Southwest Florida Perched Barriers Salt Swamp and Lagoon - Mangrove Modifier
Forest/Woodland	Atlantic Coastal Plain Central Maritime Forest
Forest/Woodland	Atlantic Coastal Plain Fall-Line Sandhills Longleaf Pine Woodland - Loblolly Modifier
Forest/Woodland	Atlantic Coastal Plain Fall-line Sandhills Longleaf Pine Woodland - Offsite Hardwood Modifier
Forest/Woodland	Atlantic Coastal Plain Fall-line Sandhills Longleaf Pine Woodland - Open Understory Modifier
Forest/Woodland	Atlantic Coastal Plain Fall-line Sandhills Longleaf Pine Woodland - Scrub/Shrub Understory Modifier
Forest/Woodland	Atlantic Coastal Plain Northern Maritime Forest
Forest/Woodland	Atlantic Coastal Plain Northern Mixed Oak-Heath Forest
Forest/Woodland	Atlantic Coastal Plain Southern Maritime Forest
Forest/Woodland	Atlantic Coastal Plain Upland Longleaf Pine Woodland
Forest/Woodland	East Gulf Coastal Plain Interior Shortleaf Pine-Oak Forest - Mixed Modifier
Forest/Woodland	East Gulf Coastal Plain Interior Shortleaf Pine-Oak Forest - Pine Modifier
Forest/Woodland	East Gulf Coastal Plain Interior Upland Longleaf Pine Woodland - Loblolly Modifier
Forest/Woodland	East Gulf Coastal Plain Interior Upland Longleaf Pine Woodland - Offsite Hardwood Modifier
Forest/Woodland	East Gulf Coastal Plain Interior Upland Longleaf Pine Woodland - Open Understory Modifier
Forest/Woodland	East Gulf Coastal Plain Interior Upland Longleaf Pine Woodland - Scrub/Shrub Modifier
Forest/Woodland	East Gulf Coastal Plain Maritime Forest
Forest/Woodland	East Gulf Coastal Plain Northern Loess Plain Oak-Hickory Upland - Hardwood Modifier
Forest/Woodland	Florida Longleaf Pine Sandhill - Open Understory Modifier
Forest/Woodland	Florida Longleaf Pine Sandhill - Scrub/Shrub Understory Modifier
Forest/Woodland	Mississippi Delta Maritime Forest
Forest/Woodland	Northeastern Interior Dry Oak Forest - Mixed Modifier
Forest/Woodland	Northeastern Interior Dry Oak Forest-Hardwood Modifier
Forest/Woodland	Northern Atlantic Coastal Plain Dry Hardwood Forest
Forest/Woodland	Southeast Florida Coastal Strand and Maritime Hammock
Forest/Woodland	Southeastern Interior Longleaf Pine Woodland
Forest/Woodland	Southern Coastal Plain Dry Upland Hardwood 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-(Pine) Forest - Loblolly Pine Modifier
Forest/Woodland	Southern Piedmont Dry Oak-(Pine) Forest - Mixed Modifier
Forest/Woodland	Southern Piedmont Dry Oak-Heath Forest - Mixed Modifier
Forest/Woodland	Southwest Florida Coastal Strand and Maritime Hammock
Wetlands	Atlantic Coastal Plain Northern Wet Longleaf Pine Savanna and Flatwoods
Wetlands	Atlantic Coastal Plain Southern Wet Pine Savanna and Flatwoods
Wetlands	Central Florida Pine Flatwoods
Wetlands	East Gulf Coastal Plain Near-Coast Pine Flatwoods - Offsite Hardwood Modifier
Wetlands	East Gulf Coastal Plain Near-Coast Pine Flatwoods - Open Understory Modifier
Wetlands	East Gulf Coastal Plain Near-Coast Pine Flatwoods - Scrub/Shrub Understory Modifier
Wetlands	East Gulf Coastal Plain Southern Loblolly-Hardwood Flatwoods
Wetlands	South Florida Pine Flatwoods

Selected Secondary Map Units within 30m of Primary Map Units:

Functional Group	Map Unit Name
Anthropogenic	Developed Open Space

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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

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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.