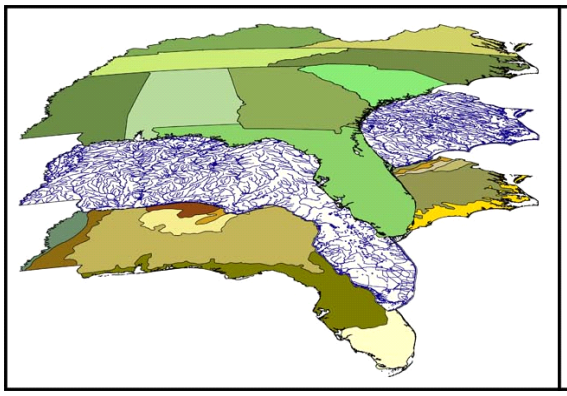


SOUTHEAST GAP ANALYSIS PROJECT

Species Modeling Report

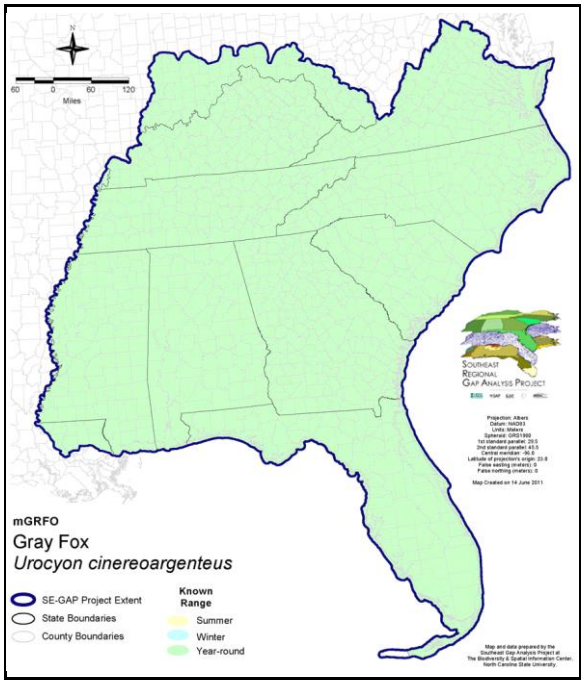
Gray Fox

Urocyon cinereoargenteus

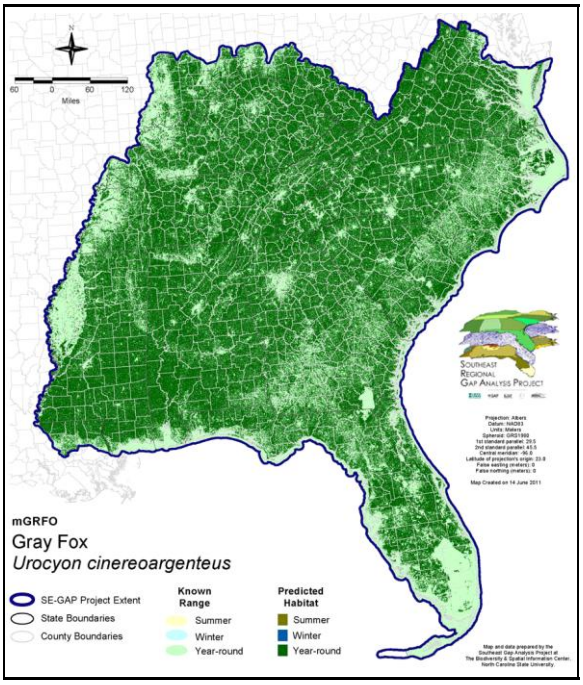
Taxa: Mammalian
Order: Carnivora
Family: Canidae

SE-GAP Spp Code: **mGRFO**
ITIS Species Code: 180609
NatureServe Element Code: AMAJA04010

KNOWN RANGE:



PREDICTED HABITAT:



Range Map Link: http://www.basic.ncsu.edu/segap/datazip/maps/SE_Range_mGRFO.pdf
Predicted Habitat Map Link: http://www.basic.ncsu.edu/segap/datazip/maps/SE_Dist_mGRFO.pdf
GAP Online Tool Link: http://www.gapserve.ncsu.edu/segap/segap/index2.php?species=mGRFO
Data Download: http://www.basic.ncsu.edu/segap/datazip/region/vert/mGRFO_se00.zip

PROTECTION STATUS:

Reported on March 14, 2011

Federal Status: ---

State Status: AL (GA, FB), KY (N), NV (YES), NY (GS), RI (Not Listed), UT (None), ON (THR), QC (Non suivie)

NS Global Rank: G5

NS State Rank: AL (S5), AR (S5), AZ (S5), CA (S4S5), CO (S4), CT (S5), DC (S3), DE (S5), FL (SNR), GA (S5), IA (S4), IL (S5), IN (S4), KS (S3), KY (S4), LA (S4S5), MA (S5), MD (S5), ME (S5), MI (S4), MN (SNR), MO (SNR), MS (S5), NC (S5), ND (SU), NE (S4), NH (S4S5), NJ (S5), NM (S5), NV (S5), NY (S5), OH (SNR), OK (S4), OR (S4), PA (S5), RI (S5), SC (SNR), SD (S5), TN (S5), TX (S5), UT (S3S4), VA (S5), VT (S5), WI (S4), WV (S5), WY (S2), AB (SNA), MB (SNA), ON (S1), QC (SNA)

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	117,307.6	< 1	34,469.6	< 1	0.0	0	0.0	0
Status 2	229,777.5	< 1	400,197.0	< 1	0.0	0	5,646.8	< 1
Status 3	3,833.8	< 1	2,804,445.5	4	64,436.0	< 1	716,539.7	< 1
Status 4	105.9	< 1	< 0.1	< 1	0.0	0	0.0	0
Total	351,024.8	< 1	3,239,112.2	4	64,436.0	< 1	722,186.5	< 1

	US Dept. of Energy		US Nat. Park Service		NOAA		Other Federal Lands	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	252,157.8	< 1	190.2	< 1	17,525.8	< 1
Status 2	0.0	0	26,847.4	< 1	8,526.8	< 1	20.6	< 1
Status 3	87,082.9	< 1	245,666.1	< 1	0.0	0	1,865.4	< 1
Status 4	0.0	0	1.0	< 1	0.0	0	0.0	0
Total	87,082.9	< 1	524,672.3	< 1	8,717.0	< 1	19,411.8	< 1

	Native Am. Reserv.		State Park/Hist. Park		State WMA/Gameland		State Forest	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	1,680.2	< 1	75.1	< 1	0.0	0
Status 2	0.0	0	20,093.8	< 1	863,766.1	1	1,416.2	< 1
Status 3	23,276.2	< 1	743,843.7	< 1	257,944.9	< 1	397,628.8	< 1
Status 4	0.0	0	< 0.1	< 1	141,289.9	< 1	48.2	< 1
Total	23,276.2	< 1	765,617.8	< 1	1,263,075.9	2	399,093.3	< 1

	State Coastal Reserve		ST Nat.Area/Preserve		Other State Lands		Private Cons. Easemt.	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	14,766.9	< 1	0.0	0	0.0	0
Status 2	13,351.3	< 1	106,409.8	< 1	6.3	< 1	4,152.8	< 1
Status 3	0.0	0	29,456.0	< 1	29,148.9	< 1	146,776.7	< 1
Status 4	0.0	0	2.1	< 1	4,119.2	< 1	< 0.1	< 1
Total	13,351.3	< 1	150,634.8	< 1	33,274.4	< 1	150,929.6	< 1

	Private Land - No Res.		Water		Overall Total	
	ha	%	ha	%	ha	%
Status 1	0.0	0	0.0	0	438,173.2	< 1
Status 2	0.0	0	0.0	2	1,680,212.4	2
Status 3	908.9	< 1	0.0	0	5,552,853.5	11
Status 4	68,277,383.4	86	46,523.1	< 1	68,610,657.2	87
Total	68,278,292.3	86	46,523.3	< 1	76,281,896.3	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: Gray foxes do best in landscapes with a diversity of habitats created by uneven terrain or fragmented land cover types (Whitaker and Hamilton 1998). They mainly occupy wooded areas and appear not to take well to predominantly open habitats, such as farmland, as does the red fox. They are associated with deciduous forests (perhaps preferring early successional stages of forest - Webster et al. 1985), but will use all forest types available to them in areas of mixed forest. They can also be found in lowland swamps and coastal plain hammocks. Like the red fox, gray foxes can be found in partially wooded suburban areas (Webster et al. 1985). In Florida habitats are reported as wooded habitats including swamps, hammocks, pine forests, old fields, and disturbed areas (Layne et al. 1977), open pinelands, flatwoods, palmetto scrub, hammocks, australian pine, but rarely in mangrove zones (Layne 1984). While gray foxes are typically considered a species of dense woods and brush, in the southeast gray fox may be more abundant in mixed woods and cultivated areas. High pine sandhills seem to be a less productive habitat, and home ranges are larger. Xeric oak forest, old fields and pastures, and mesic hardwoods used more than expected, wet prairies and high pine sandhill less than expected (Sunquist 1989). Rosenblatt (1999) found that grey foxes only occurred in forest patches greater than 24 ha.

In Putnam county Florida, the mean harmonic home range is 582 ha, ranging between 223 - 1140 ha. Density is 1/square km. Mean core area is 82 ha. Home range at Savanna River for males was 26 to 62 square km, for females 8 to 14 square km.

- K. Cook - 6-15-05

Elevation Mask: < 1219m

Contiguous Patch Minimum Size (hectares): 24

Selected Map Units:

Functional Group	Map Unit Name
Anthropogenic	Deciduous Plantations
Anthropogenic	Evergreen Plantations
Anthropogenic	Successional Shrub/Scrub (Clear Cut)
Anthropogenic	Successional Shrub/Scrub (Other)
Anthropogenic	Successional Shrub/Scrub (Utility Swath)
Brackish Tidal Marsh & Wetland	Atlantic Coastal Plain Northern Tidal Wooded Swamp
Brackish Tidal Marsh & Wetland	Atlantic Coastal Plain Southern Tidal Wooded Swamp
Brackish Tidal Marsh & Wetland	East Gulf Coastal Plain Tidal Wooded Swamp
Forest/Woodland	Alabama Ketona Glade and Woodland
Forest/Woodland	Allegheny-Cumberland Dry Oak Forest and Woodland
Forest/Woodland	Allegheny-Cumberland Dry Oak Forest and Woodland - Hardwood Modifier
Forest/Woodland	Allegheny-Cumberland Dry Oak Forest and Woodland - Pine Modifier
Forest/Woodland	Appalachian Hemlock-Hardwood Forest
Forest/Woodland	Appalachian Serpentine Woodland
Forest/Woodland	Appalachian Shale Barrens
Forest/Woodland	Atlantic Coastal Plain Central Maritime Forest
Forest/Woodland	Atlantic Coastal Plain Dry and Dry-Mesic Oak 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 Mesic Hardwood and Mixed Forest
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	Central Appalachian Alkaline Glade and Woodland
Forest/Woodland	Central Appalachian Oak and Pine Forest

Forest/Woodland	Central Appalachian Pine-Oak Rocky Woodland
Forest/Woodland	Central Interior Highlands Calcareous Glade and Barrens
Forest/Woodland	Central Interior Highlands Dry Acidic Glade and Barrens
Forest/Woodland	Cumberland Sandstone Glade and Barrens
Forest/Woodland	East Gulf Coastal Plain Interior Shortleaf Pine-Oak Forest - Hardwood Modifier
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 Limestone Forest
Forest/Woodland	East Gulf Coastal Plain Maritime Forest
Forest/Woodland	East Gulf Coastal Plain Northern Dry Upland Hardwood Forest
Forest/Woodland	East Gulf Coastal Plain Northern Dry Upland Hardwood Forest - Offsite Pine Modifier
Forest/Woodland	East Gulf Coastal Plain Northern Loess Bluff Forest
Forest/Woodland	East Gulf Coastal Plain Northern Loess Plain Oak-Hickory Upland - Hardwood Modifier
Forest/Woodland	East Gulf Coastal Plain Northern Loess Plain Oak-Hickory Upland - Juniper Modifier
Forest/Woodland	East Gulf Coastal Plain Northern Mesic Hardwood Forest
Forest/Woodland	East Gulf Coastal Plain Southern Loess Bluff Forest
Forest/Woodland	East Gulf Coastal Plain Southern Mesic Slope Forest
Forest/Woodland	Florida Longleaf Pine Sandhill - Open Understory Modifier
Forest/Woodland	Florida Longleaf Pine Sandhill - Scrub/Shrub Understory Modifier
Forest/Woodland	Florida Peninsula Inland Scrub
Forest/Woodland	Mississippi Delta Maritime Forest
Forest/Woodland	Nashville Basin Limestone Glade
Forest/Woodland	Northeastern Interior Dry Oak Forest - Mixed Modifier
Forest/Woodland	Northeastern Interior Dry Oak Forest - Virginia/Pitch Pine Modifier
Forest/Woodland	Northeastern Interior Dry Oak Forest-Hardwood Modifier
Forest/Woodland	Northern Atlantic Coastal Plain Dry Hardwood Forest
Forest/Woodland	Ridge and Valley Calcareous Valley Bottom Glade and Woodland
Forest/Woodland	South Florida Pine Rockland
Forest/Woodland	South-Central Interior Mesophytic Forest
Forest/Woodland	Southeast Florida Coastal Strand and Maritime Hammock
Forest/Woodland	Southeastern Interior Longleaf Pine Woodland
Forest/Woodland	Southern and Central Appalachian Cove Forest
Forest/Woodland	Southern and Central Appalachian Mafic Glade and Barrens
Forest/Woodland	Southern and Central Appalachian Oak Forest
Forest/Woodland	Southern and Central Appalachian Oak Forest - Xeric
Forest/Woodland	Southern Appalachian Low Mountain Pine Forest
Forest/Woodland	Southern Coastal Plain Dry Upland Hardwood Forest
Forest/Woodland	Southern Coastal Plain Oak Dome and Hammock
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 - Hardwood 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 - Hardwood Modifier
Forest/Woodland	Southern Piedmont Dry Oak-Heath Forest - Mixed Modifier
Forest/Woodland	Southern Piedmont Dry Oak-Heath Forest - Virginia/Pitch Pine Modifier
Forest/Woodland	Southern Piedmont Glade and Barrens
Forest/Woodland	Southern Piedmont Mafic Hardpan Woodland
Forest/Woodland	Southern Piedmont Mesic Forest
Forest/Woodland	Southern Piedmont Northern Triassic Basin Dry Forest
Forest/Woodland	Southern Ridge and Valley Dry Calcareous Forest
Forest/Woodland	Southern Ridge and Valley Dry Calcareous Forest - Hardwood Modifier

Forest/Woodland	Southern Ridge and Valley Dry Calcareous Forest - Pine Modifier
Forest/Woodland	Southwest Florida Coastal Strand and Maritime Hammock
Wetlands	Atlantic Coastal Plain Blackwater Stream Floodplain Forest - Forest Modifier
Wetlands	Atlantic Coastal Plain Brownwater Stream Floodplain Forest
Wetlands	Atlantic Coastal Plain Clay-Based Carolina Bay Forested 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 Northern Wet Longleaf Pine Savanna and Flatwoods
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 Small Brownwater River Floodplain Forest
Wetlands	Atlantic Coastal Plain Southern Wet Pine Savanna and Flatwoods
Wetlands	Atlantic Coastal Plain Streamhead Seepage Swamp, Pocosin, and Baygall
Wetlands	Atlantic Coastal Plain Xeric River Dune
Wetlands	Central Appalachian Floodplain - Forest Modifier
Wetlands	Central Appalachian Riparian - Forest Modifier
Wetlands	Central Florida Pine Flatwoods
Wetlands	Central Interior Highlands and Appalachian Sinkhole and Depression Pond
Wetlands	Cumberland Riverscour
Wetlands	East Gulf Coastal Plain Interior Shrub Bog
Wetlands	East Gulf Coastal Plain Jackson Plain Dry Flatwoods - Open Understory Modifier
Wetlands	East Gulf Coastal Plain Jackson Plain Dry Flatwoods - Scrub/Shrub Understory Modifier
Wetlands	East Gulf Coastal Plain Large River Floodplain Forest - Forest Modifier
Wetlands	East Gulf Coastal Plain Near-Coast Pine Flatwoods - Offsite Hardwood Modifier
Wetlands	East Gulf Coastal Plain Near-Coast Pine Flatwoods - Scrub/Shrub Understory Modifier
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	East Gulf Coastal Plain Southern Loblolly-Hardwood Flatwoods
Wetlands	East Gulf Coastal Plain Treeless Savanna and Wet Prairie
Wetlands	Floridian Highlands Freshwater Marsh
Wetlands	Lower Mississippi River Bottomland and Floodplain Forest
Wetlands	Lower Mississippi River Bottomland Depressions - Forest Modifier
Wetlands	Mississippi River Low Floodplain (Bottomland) Forest
Wetlands	Mississippi River Riparian Forest
Wetlands	North-Central Appalachian Acidic Swamp
Wetlands	North-Central Appalachian Seepage Fen
Wetlands	North-Central Interior and Appalachian Rich Swamp
Wetlands	South Florida Bayhead Swamp
Wetlands	South Florida Cypress Dome
Wetlands	South Florida Hardwood Hammock
Wetlands	South Florida Pine Flatwoods
Wetlands	South Florida Pond-Apple/Popash Slough
Wetlands	South-Central Interior Large Floodplain - Forest Modifier
Wetlands	South-Central Interior Small Stream and Riparian
Wetlands	South-Central Interior/Upper Coastal Plain Wet Flatwoods
Wetlands	Southern and Central Appalachian Bog and Fen
Wetlands	Southern Appalachian Seepage Wetland
Wetlands	Southern Coastal Plain Blackwater River Floodplain Forest
Wetlands	Southern Coastal Plain Hydric Hammock
Wetlands	Southern Coastal Plain Nonriverine Basin Swamp
Wetlands	Southern Coastal Plain Nonriverine Cypress Dome
Wetlands	Southern Coastal Plain Seepage Swamp and Baygall

Wetlands	Southern Piedmont Large Floodplain Forest - Forest Modifier
Wetlands	Southern Piedmont Seepage Wetland
Wetlands	Southern Piedmont Small Floodplain and Riparian Forest
Wetlands	Southern Piedmont/Ridge and Valley Upland Depression Swamp
Wetlands	Western Highland Rim Seepage Fen

Selected Secondary Map Units within 250m of Primary Map Units:

Functional Group	Map Unit Name
Prairie	Western Highland Rim Prairie and Barrens
Prairie	Eastern Highland Rim Prairie and Barrens
Prairie	Eastern Highland Rim Prairie and Barrens - Dry Modifier
Prairie	Pennyroyal Karst Plain Prairie and Barrens
Prairie	Southern Ridge and Valley Patch Prairie
Prairie	Bluegrass Basin Savanna and Woodland
Wetlands	Atlantic Coastal Plain Large Natural Lakeshore
Coastal Dune & Freshwater Wetland	Atlantic and Gulf Coastal Plain Interdunal Wetland
Wetlands	Atlantic Coastal Plain Depression Pondshore
Coastal Dune & Freshwater Wetland	Atlantic Coastal Plain Northern Dune and Maritime Grassland
Coastal Dune & Freshwater Wetland	Atlantic Coastal Plain Southern Dune and Maritime Grassland
Prairie	East Gulf Coastal Plain Jackson Plain Prairie and Barrens
Prairie	Florida Dry Prairie
Prairie	East Gulf Coastal Plain Black Belt Calcareous Prairie and Woodland
Prairie	East Gulf Coastal Plain Black Belt Calcareous Prairie and Woodland - Herbaceous Modifier
Forest/Woodland	East Gulf Coastal Plain Black Belt Calcareous Prairie and Woodland - Woodland Modifier
Coastal Dune & Freshwater Wetland	East Gulf Coastal Plain Dune and Coastal Grassland
Wetlands	Atlantic Coastal Plain Northern Pondshore
Prairie	Panhandle Florida Limestone Glade
Coastal Dune & Freshwater Wetland	Southwest Florida Dune and Coastal Grassland
Prairie	East Gulf Coastal Plain Jackson Prairie and Woodland
Wetlands	East Gulf Coastal Plain Northern Depression Pondshore
Wetlands	Central Florida Herbaceous Pondshore
Anthropogenic	Pasture/Hay

CITATIONS:

Armstrong, D. M. 1975. Rocky Mountain mammals. Rocky Mountain Nature Asscoc., Inc. 174 pp.

Baker, Rollin H. 1983. Michigan mammals. Michigan State University Press. 642 pp.

Banfield, A.W.F. 1974. The mammals of Canada. University of Toronto Press, Toronto.

Caire, W., J. D. Tyler, B. P. Glass, and M. A. Mares. Z. Marsh (illustrator). 1989. Mammals of Oklahoma. University of Oklahoma Press, Norman. Oklahoma. 567 pp.

Fritzell, E.K. and K.J. Haroldson. 1982. Urocyon cineroargenteus. Am. Soc. Mamm., Mammalian Species No. 189. 8 pp.

Gier, H. T. 1975. Ecology and behavior of the coyote (Canis latrans). Pages 247-262 in M. W. Fox, ed. The Wild Canids; their systematics, behavioral ecology and evolution. Van Nostrand and Reinhold Co., New York. xvi + 508 pp.

Godin, A.J. 1977. Wild Mammals of New England. Johns Hopkins University Press, Baltimore. 304 pp.

Hall, E. R. 1981. The Mammals of North America. Second edition. 2 Volumes. John Wiley and Sons, New York, New York. 1181 p.

Hamilton, William J., Jr., and John O. Whitaker, Jr. 1979. Mammals of the eastern United States. Cornell Univ. Press, Ithaca, New York. 346 pp.

Jones, J. K., Jr., et al. 1992. Revised checklist of North American mammals north of Mexico, 1991. Occas. Pap. Mus., Texas Tech Univ. (146):1-23.

Jones, R.E. and R.J. Aulerich. 1981. Bibliography of foxes. Michigan State Univ., Agric. Exp. Sta. Jour. Art. No. 9871, 141 pp.

Layne, J. N. 1984. The land mammals of South Florida. Environments of South Florida, Past and Present II. P. J. Gleason ed. Coral Gables, Florida: Miami Geological Society; pp. 269-295.

Layne, J.N.; Stallcup, J.A.; Woolfenden, G.E.; McCauley, M.N.; Worley, D.J. 1977. Fish and Wildlife Inventory of the Seven-County Region Included in the Central Florida Phosphate Industry Area-Wide Environmental Impact Study. Volumes I and II. Also avai

Lee, D. S., L. B. Funderburg Jr., and M. K. Clark. 1982. A distributional survey of North Carolina mammals. Occasional Papers of the North Carolina Biological Survey, No. 1982-10. North Carolina State. Mus. Nat. Hist., Raleigh, North Carolina. 72 pp.

Richards, S. W. and R. L. Hine. 1953. Wisconsin fox populations. Wisconsin Dept. Conserv. Tech. Bull. 6. 78 pp.

Rosenblatt, D.L., Heske, E.J., Nelson, S.L., Barber, D.M., Miller, M.A., and MacAllister, B. 1999. Forest Fragments in East-central Illinois: Islands or Habitat Patches for Mammals? The American Midland Naturalist. 141: 115-123.

Schwartz, Charles W., and Elizabeth R. Schwartz. 1981. The wild mammals of Missouri. University of Missouri Press, Columbia. 356 pp.

Sunquist, M.E. 1989. Comparison of spatial and temporal activity of red foxes and gray foxes in north central Florida. Florida Field Nat. 17:11-18.

Webster, W. D., J. F. Parnell and W. C. Biggs Jr. 1985. Mammals of the Carolinas, Virginia, and Maryland. The University of North Carolina Press, Chapel Hill, NC.

Whitaker, J.O. Jr. and W.J. Hamilton, Jr. 1998. Mammals of the eastern United States. Cornell Univ. Press, Ithaca, New York. 583 pp.

Wilson, D. E., and D. M. Reeder (editors). 1993. Mammal Species of the World:a Taxonomic and Geographic Reference. Second Edition. Smithsonian Institution Press, Washington, DC. xviii + 1206 pp.

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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.