



SOUTHEAST GAP ANALYSIS PROJECT



Species Modeling Report

American Kestrel

Falco sparverius

Taxa: Avian

Order: Falconiformes

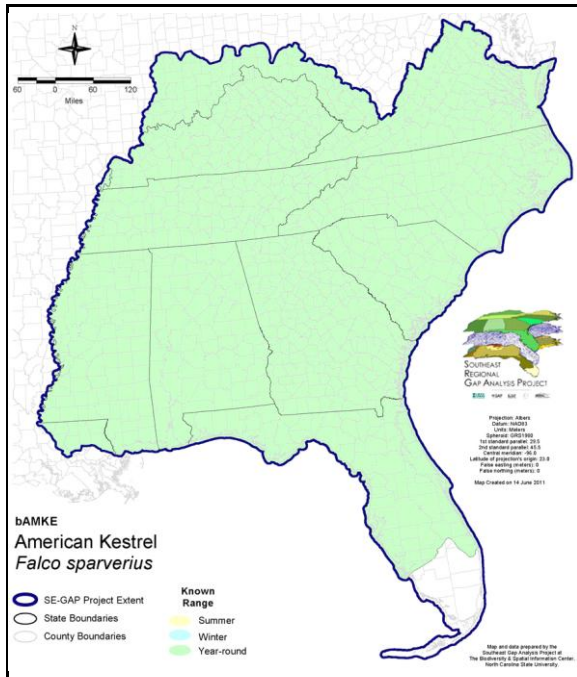
Family: Falconidae

SE-GAP Spp Code: **bAMKE**

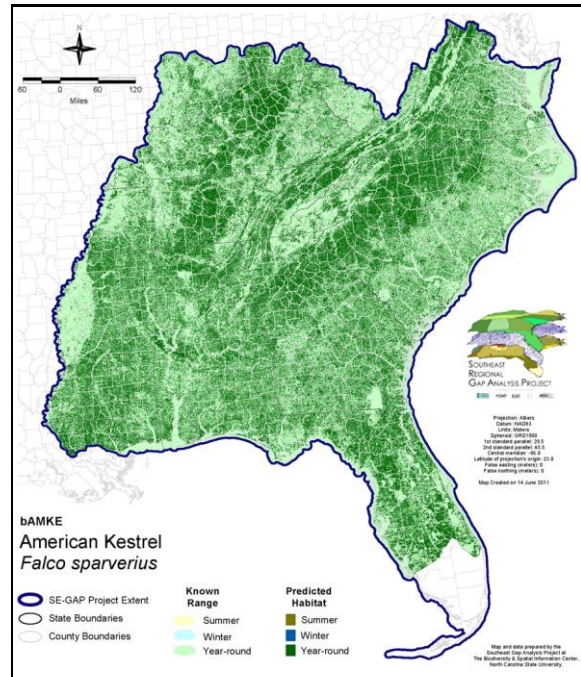
ITIS Species Code: 175622

NatureServe Element Code: ABNKD06020

KNOWN RANGE:



PREDICTED HABITAT:



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

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

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

Data Download: http://www.basic.ncsu.edu/segap/datazip/region/vert/bAMKE_se00.zip

PROTECTION STATUS:

Reported on March 14, 2011

Federal Status: ---

State Status: AR (W), CT (T), ID (P), KY (N), MA (- WL), NC (W1,W5), NH (SC), NH (SC), NJ (SC), NV (YES), NY (PB), RI (Not Listed), UT (None), BC (4 (2005)), QC (Non suivie)

NS Global Rank: G5

NS State Rank: AK (S4B), AK (S4B), AL (S2B,S5N), AR (S3S4B,S5N), AZ (S5), CA (SNR), CO (S5B), CO (S5B), CT (S2), DC (S2B,S3N), DE (S3B,S5N), FL (SNRB,SNRN), GA (S3S4), IA (S5B,S5N), ID (S5B,S5N), IL (S4), IN (S4), KS (S4B,S5N), KY (S5B,S5N), LA (S3S4B,S5N), MA (S3), MD (S5B,S4N), ME (S3N,S5B), MI (S5), MN (SNRB,SNRN), MO (SNRB,SNRN), MS (S3B,S4S5N), MS (S3B,S4S5N), MT (S5B), MT (S5B), NC (S3B,S5N), ND (SNRB,SNRN), NE (S5), NH (S3B), NH (S3B), NJ (S3B,S3N), NM (S5B,S5N), NV (S4), NY (S5), OH (S5), OK (S4S5), OR (S5), PA (S5B,S5N), RI (S4B), SC (S4), SD (S5B,S4N), TN (S5), TX (S4B), UT (S4S5B,S4N), VA (S4), VT (S5B), VT (S5B), WA (S4S5B), WI (S5B), WI (S5B), WV (S5B,S5N), WY (S5B), WY (S5B), AB (S5), BC (S4B), LB (S1S2B), MB (S3S4B), MB (S3S4B), NB (S5B), NF (S2B), NS (S5B), NT (SNRB), ON (S4), PE (S5B), QC (S4S5B), SK (S5B,S5M,S1N), YT (S2B)

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	20,298.2	< 1	1,103.8	< 1	0.0	0	0.0	0
Status 2	42,118.9	< 1	38,990.6	< 1	0.0	0	1,535.3	< 1
Status 3	326.4	< 1	414,991.1	< 1	39,736.8	< 1	367,895.8	< 1
Status 4	34.9	< 1	0.0	0	0.0	0	174.0	< 1
Total	62,778.4	< 1	455,085.5	< 1	39,736.8	< 1	369,605.1	< 1
	US Dept. of Energy		US Nat. Park Service		NOAA		Other Federal Lands	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	10,569.8	< 1	86.7	< 1	1,693.4	< 1
Status 2	0.0	0	10,945.5	< 1	6,233.1	< 1	22.5	< 1
Status 3	8,492.9	< 1	47,867.0	< 1	0.0	0	5,469.1	< 1
Status 4	0.0	0	1.0	2	0.0	0	0.0	0
Total	8,492.9	< 1	69,383.3	< 1	6,319.8	< 1	7,185.0	< 1
	Native Am. Reserv.		State Park/Hist. Park		State WMA/Gameland		State Forest	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	386.5	< 1	14.8	< 1	0.0	0
Status 2	0.0	0	2,185.7	< 1	198,721.2	< 1	180.2	< 1
Status 3	8,325.4	< 1	217,773.9	< 1	55,140.5	< 1	133,456.1	< 1
Status 4	0.0	0	0.0	0	42,014.4	< 1	18.7	< 1
Total	8,325.4	< 1	220,346.0	< 1	295,890.8	< 1	133,655.0	< 1
	State Coastal Reserve		ST Nat.Area/Preserve		Other State Lands		Private Cons. Easemt.	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	2,412.4	< 1	0.0	0	0.0	0
Status 2	3,124.2	< 1	18,553.5	< 1	3.9	< 1	1,577.3	< 1
Status 3	0.0	0	8,911.0	< 1	24,692.5	< 1	86,909.4	< 1
Status 4	0.0	0	0.0	0	2,500.2	< 1	< 0.1	< 1
Total	3,124.2	< 1	29,876.9	< 1	27,196.6	< 1	88,486.7	< 1
	Private Land - No Res.		Water		Overall Total			
	ha	%	ha	%	ha	%		
Status 1	0.0	0	0.0	0	36,565.3	< 1		
Status 2	0.0	0	0.0	0	324,191.8	< 1		
Status 3	480.1	< 1	< 0.1	< 1	1,420,467.8	4		
Status 4	47,136,980.7	95	19,386.4	< 1	47,243,090.0	96		
Total	47,137,460.8	95	19,386.5	< 1	49,024,314.9	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: American Kestrels inhabit open areas with scattered trees or telephone poles, such as in pastures, fields, farmland, woodland margins, pine savannah (Hamel 1992, Simpson 1992), oak hammocks (Layne et al. 1977), and edges of river bottoms (Kale 1978). They also inhabit partly open habitats such as prairies, deserts, wooded streams, burned forest, open woodland, road margins, and sometimes cities (Smallwood 1987, Palmer 1988). Forages from high perches in these habitats (Hamel 1992, Kaufman 1996). During the summer, their preference was in the longleaf pine-turkey oak community. Within this community type the most occurrence occurred within the pastures and sandhill woodlands for both male and females (Bohall 1984). Along with elevated perches, and open terrain for hunting, available nesting sites are also required, such as tree cavities, earthen banks, occasionally birdhouses, and non-tree cavities or crevices (Johnsgard 1990). Kestrels commonly occur in urban and suburban areas, and have even nested in chimneys and drainpipes (Palmer 1988). Kestrels are uncommon in the mountains (Hamel 1992).

The size of the breeding territories ranged from 13.1-23.2 ha (Gard & Bird 1990). In Missouri, the average diameter of territories for breeding pairs was 0.75-2.42 km. In high quality habitat (sandhill woodlands), territory size was approximately 50 ha. In disturbed areas a pair may require 116-317 ha (Stys 1993). Average home range size was 350 acres (Schoener 1968).

Quoted directly from existing state habitat notes - K. Cook, 13Feb05

Contiguous Patch Minimum Size (hectares): 13

Selected Map Units:

Functional Group	Map Unit Name
Anthropogenic	Developed Open Space
Anthropogenic	Low Intensity Developed
Anthropogenic	Pasture/Hay
Anthropogenic	Successional Grassland/Herbaceous
Anthropogenic	Successional Grassland/Herbaceous (Other)
Anthropogenic	Successional Grassland/Herbaceous (Utility Swath)
Anthropogenic	Successional Shrub/Scrub (Clear Cut)
Anthropogenic	Successional Shrub/Scrub (Other)
Anthropogenic	Successional Shrub/Scrub (Utility Swath)
Bald	Central Appalachian Montane Rocky Bald - Herbaceous Modifier
Bald	Central Appalachian Montane Rocky Bald - Shrub Modifier
Bald	Southern Appalachian Grass and Shrub Bald - Herbaceous Modifier
Bald	Southern Appalachian Grass and Shrub Bald - Shrub Modifier
Coastal Dune & Freshwater Wetland	Atlantic Coastal Plain Northern Dune and Maritime Grassland
Coastal Dune & Freshwater Wetland	Atlantic Coastal Plain Southern Dune and Maritime Grassland
Coastal Dune & Freshwater Wetland	East Gulf Coastal Plain Dune and Coastal Grassland
Coastal Dune & Freshwater Wetland	Southwest Florida Dune and Coastal Grassland
Forest/Woodland	Alabama Ketona Glade and Woodland
Forest/Woodland	Appalachian Shale Barrens
Forest/Woodland	Central Appalachian Alkaline Glade and Woodland
Forest/Woodland	Cumberland Sandstone Glade and Barrens
Forest/Woodland	East Gulf Coastal Plain Black Belt Calcareous Prairie and Woodland - Woodland Modifier
Forest/Woodland	Nashville Basin Limestone Glade
Forest/Woodland	Ridge and Valley Calcareous Valley Bottom Glade and Woodland
Forest/Woodland	Southern and Central Appalachian Mafic Glade and Barrens
Forest/Woodland	Southern Piedmont Glade and Barrens
Prairie	Bluegrass Basin Savanna and Woodland
Prairie	East Gulf Coastal Plain Black Belt Calcareous Prairie and Woodland
Prairie	East Gulf Coastal Plain Black Belt Calcareous Prairie and Woodland - Herbaceous Modifier
Prairie	East Gulf Coastal Plain Jackson Plain Prairie and Barrens

Prairie	East Gulf Coastal Plain Jackson Prairie and Woodland
Prairie	Eastern Highland Rim Prairie and Barrens
Prairie	Eastern Highland Rim Prairie and Barrens - Dry Modifier
Prairie	Florida Dry Prairie
Prairie	Panhandle Florida Limestone Glade
Prairie	Pennyroyal Karst Plain Prairie and Barrens
Prairie	Southern Ridge and Valley Patch Prairie
Prairie	Western Highland Rim Prairie and Barrens
Rock Outcrop	Central Interior Acidic Cliff and Talus
Rock Outcrop	Central Interior Calcareous Cliff and Talus
Rock Outcrop	East Gulf Coastal Plain Dry Chalk Bluff
Rock Outcrop	Southern Interior Acid Cliff
Rock Outcrop	Southern Interior Calcareous Cliff
Rock Outcrop	Southern Piedmont Cliff

Selected Secondary Map Units within 60m of Primary Map Units:

Functional Group	Map Unit Name
Wetlands	Central Interior Highlands and Appalachian Sinkhole and Depression Pond
Forest/Woodland	Southern Piedmont Dry Oak-Heath Forest - Hardwood Modifier
Forest/Woodland	Southern Piedmont Dry Oak-Heath Forest - Virginia/Pitch Pine Modifier
Forest/Woodland	Southern Piedmont Dry Oak-Heath Forest - Mixed Modifier
Forest/Woodland	Southern Piedmont Mafic Hardpan Woodland
Wetlands	Southern Piedmont Seepage Wetland
Wetlands	Southern and Central Appalachian Bog and Fen
Wetlands	Southern Appalachian Seepage Wetland
Forest/Woodland	Southeastern Interior Longleaf Pine Woodland
Wetlands	Southern Piedmont Small Floodplain and Riparian Forest
Wetlands	Southern Piedmont/Ridge and Valley Upland Depression Swamp
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 Mesic Forest
Wetlands	Western Highland Rim Seepage Fen
Forest/Woodland	Appalachian Serpentine Woodland
Forest/Woodland	Allegheny-Cumberland Dry Oak Forest and Woodland
Forest/Woodland	Allegheny-Cumberland Dry Oak Forest and Woodland - Hardwood Modifier
Forest/Woodland	Southern Ridge and Valley Dry Calcareous Forest
Forest/Woodland	Southern Ridge and Valley Dry Calcareous Forest - Hardwood Modifier
Forest/Woodland	Southern Piedmont Northern Triassic Basin Dry Forest
Forest/Woodland	Central Appalachian Oak and Pine Forest
Forest/Woodland	Northeastern Interior Dry Oak Forest-Hardwood Modifier
Forest/Woodland	Northeastern Interior Dry Oak Forest - Virginia/Pitch Pine Modifier
Forest/Woodland	Northeastern Interior Dry Oak Forest - Mixed Modifier
Forest/Woodland	Central Appalachian Pine-Oak Rocky Woodland
Wetlands	North-Central Appalachian Acidic Swamp
Wetlands	North-Central Interior and Appalachian Rich Swamp
Wetlands	North-Central Appalachian Seepage Fen
Wetlands	Central Appalachian Floodplain - Forest Modifier
Wetlands	Central Appalachian Floodplain - Herbaceous Modifier
Wetlands	Central Appalachian Riparian - Forest Modifier
Wetlands	Central Appalachian Riparian - Herbaceous Modifier
Wetlands	South-Central Interior Small Stream and Riparian
Forest/Woodland	Southern and Central Appalachian Oak Forest
Forest/Woodland	Southern and Central Appalachian Oak Forest - Xeric
Forest/Woodland	South-Central Interior Mesophytic Forest
Forest/Woodland	Southern Interior Low Plateau Dry-Mesic Oak Forest
Forest/Woodland	Southern Interior Low Plateau Dry-Mesic Oak Forest - Evergreen Modifier

Wetlands	Atlantic Coastal Plain Large Natural Lakeshore
Forest/Woodland	Florida Peninsula Inland Scrub
Wetlands	Floridian Highlands Freshwater Marsh
Wetlands	Southern Coastal Plain Herbaceous Seepage Bog
Forest/Woodland	Atlantic Coastal Plain Northern Mixed Oak-Heath Forest
Wetlands	East Gulf Coastal Plain Treeless Savanna and Wet Prairie
Forest/Woodland	Atlantic Coastal Plain Dry and Dry-Mesic Oak Forest
Forest/Woodland	Atlantic Coastal Plain Mesic Hardwood and Mixed Forest
Wetlands	Atlantic Coastal Plain Clay-Based Carolina Bay Forested Wetland
Wetlands	Atlantic Coastal Plain Clay-Based Carolina Bay Herbaceous Wetland
Wetlands	Atlantic Coastal Plain Blackwater Stream Floodplain Forest - Forest 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	Southern Coastal Plain Nonriverine Cypress Dome
Wetlands	Atlantic Coastal Plain Streamhead Seepage Swamp, Pocosin, and Baygall
Wetlands	Atlantic Coastal Plain Sandhill Seep
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 - Loblolly Modifier
Forest/Woodland	Atlantic Coastal Plain Fall-line Sandhills Longleaf Pine Woodland - Offsite Hardwood Modifier
Freshwater Tidal Marsh & Wetland	Atlantic Coastal Plain Embayed Region Tidal Freshwater Marsh
Forest/Woodland	Atlantic Coastal Plain Central Maritime Forest
Wetlands	Atlantic Coastal Plain Depression Pondshore
Wetlands	Atlantic Coastal Plain Northern Wet Longleaf Pine Savanna and Flatwoods
Wetlands	Atlantic Coastal Plain Peatland Pocosin
Wetlands	Southern Coastal Plain Spring-run Stream Aquatic Vegetation
Forest/Woodland	Atlantic Coastal Plain Upland Longleaf Pine Woodland
Forest/Woodland	Florida Longleaf Pine Sandhill - Open Understory Modifier
Forest/Woodland	Atlantic Coastal Plain Northern Maritime Forest
Wetlands	Atlantic Coastal Plain Nonriverine Swamp and Wet Hardwood Forest - Oak Dominated Modifier
Wetlands	Atlantic Coastal Plain Nonriverine Swamp and Wet Hardwood Forest - Taxodium/Nyssa 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 Near-Coast Pine Flatwoods - Offsite Hardwood Modifier
Freshwater Tidal Marsh & Wetland	Atlantic Coastal Plain Central Fresh-Oligohaline Tidal Marsh
Wetlands	Central Florida Pine Flatwoods
Wetlands	Southern Coastal Plain Nonriverine Basin Swamp
Wetlands	East Gulf Coastal Plain Interior Shrub Bog
Forest/Woodland	Northern Atlantic Coastal Plain Dry Hardwood Forest
Forest/Woodland	East Gulf Coastal Plain Southern Mesic Slope Forest
Forest/Woodland	East Gulf Coastal Plain Northern Mesic Hardwood Forest
Wetlands	East Gulf Coastal Plain Jackson Plain Dry Flatwoods - Open Understory Modifier
Wetlands	South-Central Interior/Upper Coastal Plain Wet Flatwoods
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 Dry Upland Hardwood Forest
Forest/Woodland	East Gulf Coastal Plain Northern Dry Upland Hardwood Forest - Offsite Pine Modifier
Wetlands	Central Florida Herbaceous Seep
Wetlands	Southern Coastal Plain Blackwater River Floodplain Forest
Forest/Woodland	Southern Coastal Plain Oak Dome and Hammock
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 - Loblolly Modifier
Forest/Woodland	East Gulf Coastal Plain Interior Upland Longleaf Pine Woodland - Offsite Hardwood Modifier
Wetlands	Atlantic Coastal Plain Xeric River Dune
Wetlands	Southern Coastal Plain Hydric Hammock

Forest/Woodland	East Gulf Coastal Plain Limestone Forest
Forest/Woodland	East Gulf Coastal Plain Maritime Forest
Wetlands	East Gulf Coastal Plain Southern Depression Pondshore
Wetlands	Southern Coastal Plain Seepage Swamp and Baygall
Forest/Woodland	East Gulf Coastal Plain Interior Shortleaf Pine-Oak Forest - Mixed Modifier
Forest/Woodland	East Gulf Coastal Plain Interior Shortleaf Pine-Oak Forest - Hardwood Modifier
Forest/Woodland	East Gulf Coastal Plain Interior Shortleaf Pine-Oak Forest - Pine Modifier
Freshwater Tidal Marsh & Wetland	Florida Big Bend Fresh-Oligohaline Tidal Marsh
Forest/Woodland	Mississippi Delta Maritime Forest
Freshwater Tidal Marsh & Wetland	Atlantic Coastal Plain Northern Fresh and Oligohaline Tidal Marsh
Wetlands	Atlantic Coastal Plain Northern Pondshore
Wetlands	Atlantic Coastal Plain Northern Basin Swamp and Wet Hardwood Forest
Wetlands	Atlantic Coastal Plain Northern Basin Peat Swamp
Wetlands	Atlantic Coastal Plain Southern Wet Pine Savanna and Flatwoods
Forest/Woodland	Atlantic Coastal Plain Southern Maritime Forest
Wetlands	East Gulf Coastal Plain Northern Seepage Swamp
Forest/Woodland	East Gulf Coastal Plain Southern Loess Bluff Forest
Wetlands	East Gulf Coastal Plain Southern Loblolly-Hardwood Flatwoods
Wetlands	East Gulf Coastal Plain Northern Depression Pondshore
Wetlands	East Gulf Coastal Plain Small Stream and River Floodplain Forest
Forest/Woodland	Southern Coastal Plain Dry Upland Hardwood Forest
Wetlands	South Florida Willow Head
Wetlands	South Florida Freshwater Slough and Gator Hole
Wetlands	South Florida Pond-Apple/Popash Slough
Wetlands	Unconsolidated Shore (Lake/River/Pond)
Anthropogenic	Deciduous Plantations
Anthropogenic	Evergreen Plantations

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