



SOUTHEAST GAP ANALYSIS PROJECT



Species Modeling Report

Swallow-tailed Kite

Elanoides forficatus

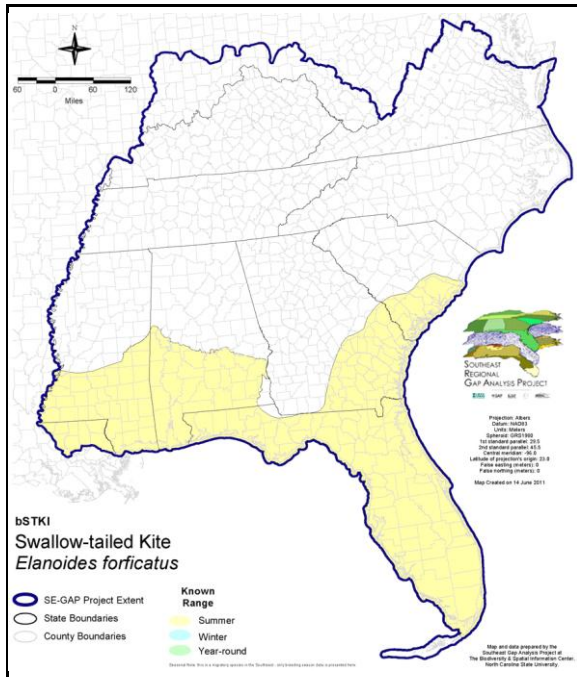
Taxa: Avian
 Order: Falconiformes
 Family: Accipitridae

SE-GAP Spp Code: **bSTKI**

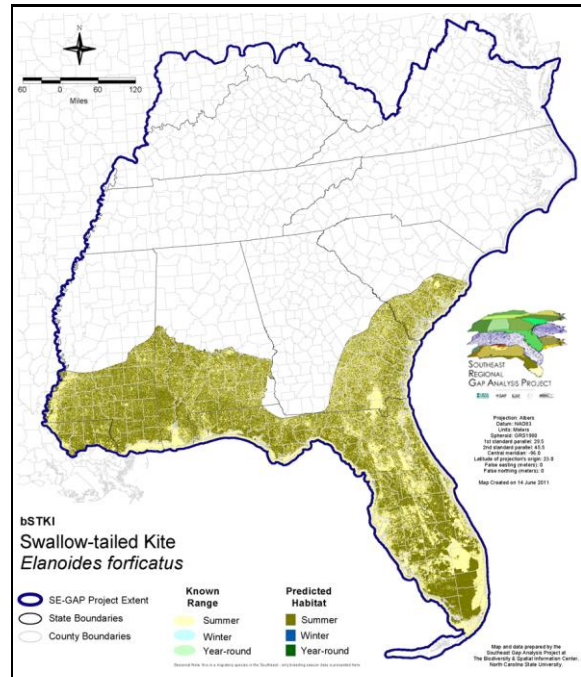
ITIS Species Code: 175289

NatureServe Element Code: ABNKC04010

KNOWN RANGE:



PREDICTED HABITAT:



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

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

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

Data Download: http://www.basic.ncsu.edu/segap/datazip/region/vert/bSTKI_se00.zip

PROTECTION STATUS:

Reported on March 14, 2011

Federal Status: ---

State Status: GA (R), IN (SX), IN (SX), KY (X), KY (X), MN (NON), NC (W3), NC (W3), NJ (INC), NY (PB), OH (X), SC (SE-Endangered), TX (T), QC (Non suivie)

NS Global Rank: G5

NS State Rank: AL (S2), AR (SNR), AZ (SNA), AZ (SNA), CO (SNA), DE (SNA), FL (S2), GA (S2), IA (SXB), IL (SX), IN (SXB), IN (SXB), KS (SXB), KY (SXB), KY (SXB), LA (S1S2B), MD (SNA), MI (SNA), MN (SX), MO (SX), MS (S2B), NC (SUB), NC (SUB), NE (SXB,S1N), NE (SXB,S1N), NJ (SNA), NM (SNA), NY (SNA), OH (SX), OK (SH), PA (SNA), SC (S2), TN (SNA), TX (S2B), VA (SNA), WI (SXB), WI (SXB), WV (SNA), MB (SNA), NS (SNA), ON (SNA), QC (SNA), SK (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	79,095.5	< 1	5,168.5	< 1	0.0	0	0.0	0
Status 2	52,569.1	< 1	39,453.7	< 1	0.0	0	43.9	< 1
Status 3	3.8	< 1	571,412.5	3	0.0	0	272,741.8	1
Status 4	6.0	< 1	0.0	0	0.0	0	0.0	0
Total	131,674.4	< 1	616,034.7	3	0.0	0	272,785.7	1
	US Dept. of Energy		US Nat. Park Service		NOAA		Other Federal Lands	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	367,359.5	2	695.4	< 1	12,233.4	< 1
Status 2	0.0	0	18,576.3	< 1	36,585.3	< 1	83.3	< 1
Status 3	1,108.3	< 1	273,847.1	1	0.0	0	3,593.3	< 1
Status 4	0.0	0	0.0	0	0.0	0	0.0	0
Total	1,108.3	< 1	659,782.9	3	37,280.7	< 1	15,910.0	< 1
	Native Am. Reserv.		State Park/Hist. Park		State WMA/Gameland		State Forest	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	392.9	< 1	0.0	0	0.0	0
Status 2	0.0	0	839.4	< 1	650,044.9	3	0.0	0
Status 3	139.7	< 1	613,314.8	3	31,154.7	< 1	293,216.4	2
Status 4	0.0	0	< 0.1	< 1	25,042.6	< 1	39.1	< 1
Total	139.7	< 1	614,547.2	3	706,242.2	4	293,255.5	2
	State Coastal Reserve		ST Nat.Area/Preserve		Other State Lands		Private Cons. Easemt.	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	2,283.0	< 1	0.0	0	0.0	0
Status 2	15,620.6	< 1	21,509.9	< 1	0.0	0	2,654.6	< 1
Status 3	0.0	0	23,303.1	< 1	19,397.6	< 1	138,263.4	< 1
Status 4	0.0	0	0.0	0	253.4	< 1	< 0.1	< 1
Total	15,620.6	< 1	47,096.0	< 1	19,651.0	< 1	140,918.1	< 1
	Private Land - No Res.		Water		Overall Total			
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	9	0.0	0	467,228.4 2			
Status 2	0.8	< 1	0.0	0	837,981.8 4			
Status 3	417.5	< 1	1.2	< 1	2,241,915.0 14			
Status 4	15,215,800.5	78	39,133.9	< 1	15,305,312.2 79			
Total	15,216,219.0	78	39,135.1	< 1	18,852,437.4 100			

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):

Summer Model:

Habitat Description: Swallow-tailed kites are common in lowland hydric or riparian forested regions, especially swampy areas, ranging into open wet woodland (AOU 1983). Prefer mixture of swamp forests and fresh and brackish marshes, usually open swamps, and ponds (Hamel 1992). Usually nest in or near swamps and use cypress swamps, open pine woodlands, moist prairies and marshes, tropical hammocks, and coastal mangroves (Stevenson and Anderson 1994, Layne et al. 1977). Pine forest edge along riparian and swamp forest is important breeding on coastal plain (Meyer 1995). Pine-cypress-small prairie-hammock mosaic was used 32% of the time, mixed swamp forest was used 29%, and cypress-pine-small prairie-hammock mosaic was used 22% of the time for breeding adult males (Meyer & Collopy 1995). They typically avoid dry and upland habitats (Hamel 1992).

Nests high in tall trees in clearings or on forest/woodland edges, usually in pine, black mangrove, buttonwood, cypress, or Casuarina in Florida, or various deciduous trees in Texas and former range to north (Palmer 1988). They forage over prairies for insects for their own consumption, and forage in habitat mosaics for vertebrate prey to feed young (need citation). Appears to select cypress canopies for nesting when available (Meyer & Collopy 1995).

Found along the western shores of Lake Okeechobee. Robertson (in Cely 1979) estimated that 250-400 pairs nested in south Florida (Millsap 1987).

Regarding spatial habitat characteristics, they can move long distances in short periods, their home ranges reflected this from 8,922-36,048 ha. The core area were smaller, approximately 3-17% of the total home range (Cely & Sorrow 1990). Adult males made daily trips of 15-22 km from the nest in Long Pine Key. For breeding males the home range was 30.8-117.1 square km with a maximum distance traveled being 5.8-26.5 km. For breeding females the home range was 10.6 square km with a maximum distance traveled being 4.1 km. For nonbreeding males the home range was 5.3 square km with a maximum distance traveled being 3.7 km (Meyer & Collopy 1995).

Quoted directly from existing state habitat notes - K. Cook, 9Feb05

Hydrography Mask:

Utilizes flowing water features with buffer of 500m from selected water features.

Utilizes open water features with buffer of 500m from selected water features.

Utilizes wet vegetation features with buffers of 500m from and unlimited into selected vegetation features.

Selected Map Units:

Functional Group	Map Unit Name
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)
Brackish Tidal Marsh & Wetland	Atlantic Coastal Plain Central Salt and Brackish Tidal Marsh
Brackish Tidal Marsh & Wetland	Atlantic Coastal Plain Indian River Lagoon Tidal Marsh
Brackish Tidal Marsh & Wetland	Atlantic Coastal Plain Northern Sea-Level Fen
Brackish Tidal Marsh & Wetland	Atlantic Coastal Plain Southern Tidal Wooded Swamp
Brackish Tidal Marsh & Wetland	East Gulf Coastal Plain Tidal Wooded Swamp
Brackish Tidal Marsh & Wetland	Florida Big Bend Salt-Brackish Tidal Marsh
Brackish Tidal Marsh & Wetland	Mississippi Sound Salt and Brackish Tidal Marsh
Brackish Tidal Marsh & Wetland	South Florida Everglades Sawgrass Marsh
Brackish Tidal Marsh & Wetland	South Florida Mangrove Swamp
Brackish Tidal Marsh & Wetland	Southwest Florida Perched Barriers Salt Swamp and Lagoon - Mangrove Modifier
Brackish Tidal Marsh & Wetland	Southwest Florida Perched Barriers Salt Swamp and Lagoon - Marsh Modifier
Coastal Dune & Freshwater Wetland	Atlantic and Gulf Coastal Plain Interdunal Wetland

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	Atlantic Coastal Plain Fall-Line Sandhills Longleaf Pine Woodland - Loblolly Modifier
Forest/Woodland	Atlantic Coastal Plain Fall-line Sandhills Longleaf Pine Woodland - Open Understory Modifier
Forest/Woodland	Atlantic Coastal Plain Upland Longleaf Pine Woodland
Forest/Woodland	East Gulf Coastal Plain Black Belt Calcareous Prairie and Woodland - Woodland 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 - Open Understory Modifier
Forest/Woodland	East Gulf Coastal Plain Northern Dry Upland Hardwood Forest - Offsite Pine Modifier
Forest/Woodland	Florida Longleaf Pine Sandhill - Open Understory Modifier
Freshwater Tidal Marsh & Wetland	Atlantic Coastal Plain Central Fresh-Oligohaline Tidal Marsh
Freshwater Tidal Marsh & Wetland	Atlantic Coastal Plain Embayed Region Tidal Freshwater Marsh
Freshwater Tidal Marsh & Wetland	Florida Big Bend Fresh-Oligohaline Tidal Marsh
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	Florida Dry Prairie
Prairie	Panhandle Florida Limestone Glade
Prairie	Southern Ridge and Valley Patch Prairie
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 Clay-Based Carolina Bay Forested Wetland
Wetlands	Atlantic Coastal Plain Clay-Based Carolina Bay Herbaceous Wetland
Wetlands	Atlantic Coastal Plain Depression Pondshore
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 Pondshore
Wetlands	Atlantic Coastal Plain Northern Wet Longleaf Pine Savanna and Flatwoods
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	Central Florida Herbaceous Seep
Wetlands	Central Florida Pine Flatwoods
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 Large River Floodplain Forest - Herbaceous Modifier
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 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	Lower Mississippi River Bottomland Depressions - Herbaceous Modifier
Wetlands	Mississippi River Low Floodplain (Bottomland) Forest
Wetlands	Mississippi River Riparian Forest
Wetlands	South Florida Bayhead Swamp
Wetlands	South Florida Cypress Dome
Wetlands	South Florida Dwarf Cypress Savanna
Wetlands	South Florida Freshwater Slough and Gator Hole
Wetlands	South Florida Hardwood Hammock
Wetlands	South Florida Pine Flatwoods
Wetlands	South Florida Pond-Apple/Popash Slough
Wetlands	South Florida Wet Marl Prairie
Wetlands	South Florida Willow Head
Wetlands	Southern Coastal Plain Blackwater River Floodplain Forest
Wetlands	Southern Coastal Plain Herbaceous Seepage Bog
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

CITATIONS: American Ornithologists' Union (AOU), Committee on Classification and Nomenclature. 1983. Check-list of North American Birds. Sixth Edition. American Ornithologists' Union, Allen Press, Inc., Lawrence, Kansas.

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Compiled: 15 September 2011

This data was compiled and/or developed
by the Southeast GAP Analysis Project at
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