



SOUTHEAST GAP ANALYSIS PROJECT



Species Modeling Report

Eastern Screech-Owl

Megascops asio

Taxa: Avian

Order: Strigiformes

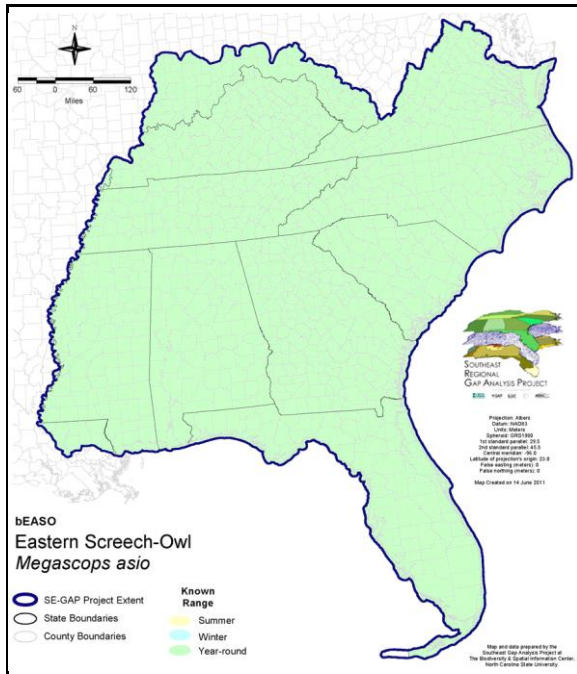
Family: Strigidae

SE-GAP Spp Code: **bEASO**

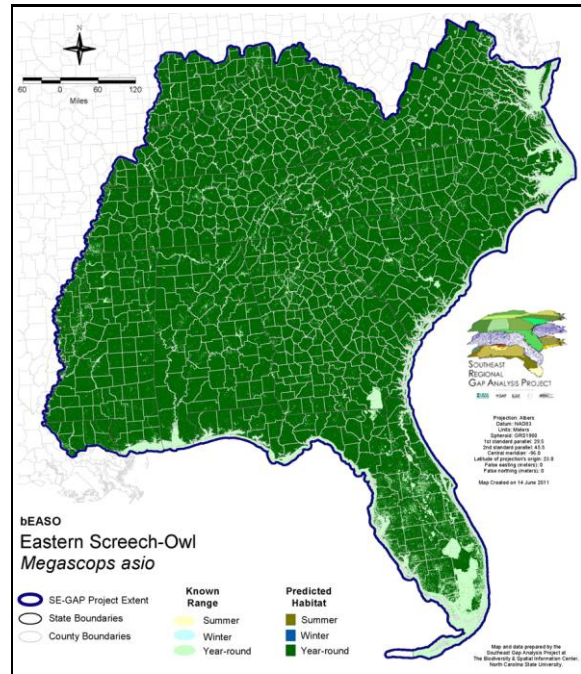
ITIS Species Code: 177856

NatureServe Element Code: ABNSB01030

KNOWN RANGE:



PREDICTED HABITAT:



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

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

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

Data Download: http://www.basic.ncsu.edu/segap/datazip/region/vert/bEASO_se00.zip

PROTECTION STATUS:

Reported on March 14, 2011

Federal Status: ---

State Status: KY (N), ME (SC), NJ (S/S), NY (PB), RI (Not Listed), ON (NAR), QC (Non suivie)

NS Global Rank: G5

NS State Rank: AL (S5), AR (S4), CO (S4B), CT (S5), DC (S1), DE (S5), FL (SNR), GA (S5), IA (S4B,S4N), IL (S5), IN (S4), KS (S5), KY (S5B,S5N), LA (S5), MA (S5), MD (S5), ME (S1S2B), MI (S5), MN (SNR), MO (SNR), MS (S5), MT (S3S4), NC (S5), ND (SNR), NE (S4), NH (S4), NJ (S4B), NY (S5), OH (S5), OK (S4S5), PA (S5), RI (S3B,S3N), SC (SNR), SD (S5), TN (S5), TX (S5B), VA (S5), VT (S4B,S4N), WI (S5B), WI (S5B), WV (S5B,S5N), WY (S3), AB (SNA), MB (S4), NB (SNA), NS (SNA), ON (S4), PE (SNA), QC (S4B), SK (S3B,S2N)

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	128,185.9	< 1	38,371.7	< 1	0.0	0	0.0	0
Status 2	275,540.1	< 1	435,793.4	< 1	0.0	0	6,032.0	< 1
Status 3	4,145.8	< 1	3,075,491.9	3	83,856.8	< 1	896,303.6	< 1
Status 4	120.6	< 1	< 0.1	< 1	0.0	0	219.3	< 1
Total	407,992.4	< 1	3,549,657.1	3	83,856.8	< 1	902,554.9	< 1
	US Dept. of Energy		US Nat. Park Service		NOAA		Other Federal Lands	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	302,834.9	< 1	202.1	< 1	17,357.5	< 1
Status 2	0.0	0	32,012.3	< 1	11,958.2	< 1	67.8	< 1
Status 3	90,828.0	< 1	304,220.2	< 1	0.0	0	8,387.1	< 1
Status 4	0.0	0	1.0	< 1	0.0	0	0.0	0
Total	90,828.0	< 1	639,068.9	< 1	12,160.4	< 1	25,812.4	< 1
	Native Am. Reserv.		State Park/Hist. Park		State WMA/Gameland		State Forest	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	1,746.2	< 1	82.5	< 1	0.0	0
Status 2	0.0	0	21,109.3	< 1	927,464.0	< 1	1,471.9	< 1
Status 3	28,339.7	< 1	792,882.6	< 1	282,020.1	< 1	466,801.4	< 1
Status 4	0.0	0	< 0.1	< 1	153,925.4	< 1	49.1	< 1
Total	28,339.7	< 1	815,738.2	< 1	1,363,492.1	1	468,322.3	< 1
	State Coastal Reserve		ST Nat.Area/Preserve		Other State Lands		Private Cons. Easemt.	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	16,486.7	< 1	0.0	0	0.0	0
Status 2	14,838.3	< 1	111,714.3	< 1	7.0	< 1	4,439.5	< 1
Status 3	0.0	0	28,934.7	< 1	40,376.3	< 1	173,575.3	< 1
Status 4	0.0	0	2.1	< 1	5,791.0	< 1	< 0.1	< 1
Total	14,838.3	< 1	157,137.8	< 1	46,174.3	< 1	178,014.9	< 1
	Private Land - No Res.		Water		Overall Total			
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	0.0	0			505,267.6	< 1
Status 2	0.2	< 1	0.0	< 1			1,842,448.5	2
Status 3	1,289.1	< 1	1.1	< 1			6,277,453.7	9
Status 4	92,579,047.0	88	68,001.0	< 1			92,960,962.1	89
Total	92,580,336.3	88	68,002.3	< 1			101,586,132.0	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: This owl forages in open fields, clearings and edges (Hamel 1992). In south-central Iowa, the highest use of nest boxes occurred in riparian sites (Iowa Bird Life, 1990). They use open woodland, deciduous forest, orchards, woodland/forest edge, swamps, parklands, residential areas in towns, scrub, and riparian woodland in drier regions. Evergreen woodland/ forest is little used in northeastern U.S (NATURESERVE). However it is reported that they may favor pine woods and mixed woods over bottomlands and swamps (Hammel 1992). Habitats with the greatest use included red maple woodland (41.2%), lawn (16.0%), and edge (9.0%) (Smith & Gilbert 1984). In urban or suburban yards, parks, and greenbelts the only requirement appears to the presence of a cavity tree or nest box (Gehlbach 1995).

Eastern screech owls nest in open to medium growth pine, deciduous, or mixed forests; also in agricultural, suburban, scrub and riparian woods (Ehrlich et al. 1988, Nicholson 1997). Will nest in parks and suburban areas that provide large shade trees with cavities for nesting (Johnsgard 1988). Generally nests in tree cavities, such as abandoned Pileated Woodpecker and Flicker holes (Harrison 1975), but also hollow stumps (Ehrlich et al.1988), crevices in buildings, birdhouses, and nest boxes (Ehrlich et al.1988), particularly those made specifically for owls or Wood Ducks (Nicholson 1997). Nests have been found in cavities ranging from 1.5 m to 16.8 m above ground (Harrison 1975, Duley 1979); an average cavity depth of 31 cm has been suggested as an important factor (Belthoff and Ritchison 1990).

Regarding spatial habitat characteristics, total observed home range for males was 103.4 ha with a maximum diameter of 1.27 km; and for females it was 130.2 ha with a maximum diameter of 1.55 km. Home range is largest while a female is selecting a nest, and smallest during egg laying, incubation, and care of young (Smith & Gilbert 1984). # Home range size of 136 acres (Schoener 1968).

Quoted directly from existing state habitat notes - K. Cook, 17Feb05

Elevation Mask: < 1371m

Selected Map Units:

Functional Group	Map Unit Name
Anthropogenic	Deciduous Plantations
Anthropogenic	Developed Open Space
Anthropogenic	Evergreen Plantations
Anthropogenic	Low Intensity Developed
Anthropogenic	Pasture/Hay
Anthropogenic	Row Crop
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)
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	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 and Southern Appalachian Montane Oak Forest
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 Black Belt Calcareous Prairie and Woodland - Woodland 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 - 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 Appalachian Montane Pine Forest and Woodland
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
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	North-Central Appalachian Acidic Cliff and Talus
Rock Outcrop	North-Central Appalachian Circumneutral Cliff and Talus
Rock Outcrop	Southern Appalachian Montane Cliff
Rock Outcrop	Southern Interior Acid Cliff
Rock Outcrop	Southern Interior Calcareous Cliff
Rock Outcrop	Southern Piedmont Cliff
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 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	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 - 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 Loblolly-Hardwood Flatwoods
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 Dwarf Cypress Savanna
Wetlands	South Florida Hardwood Hammock
Wetlands	South Florida Pine Flatwoods
Wetlands	South Florida Willow Head
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 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

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