



SOUTHEAST GAP ANALYSIS PROJECT



Species Modeling Report

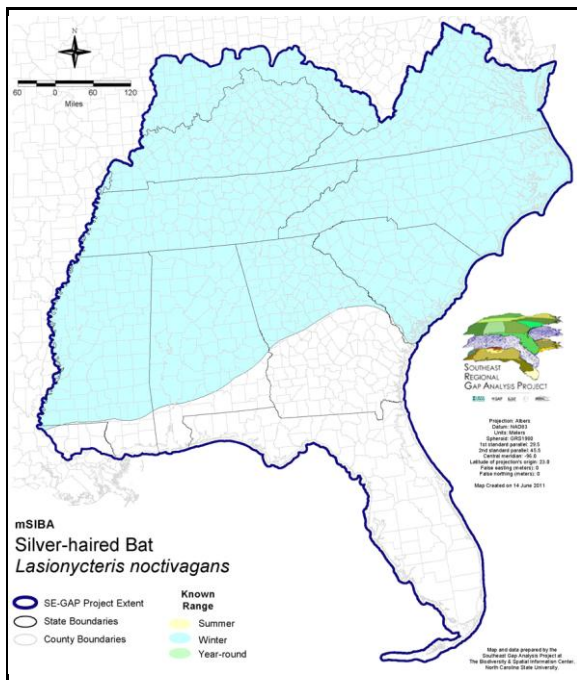
Silver-haired Bat

Lasionycteris noctivagans

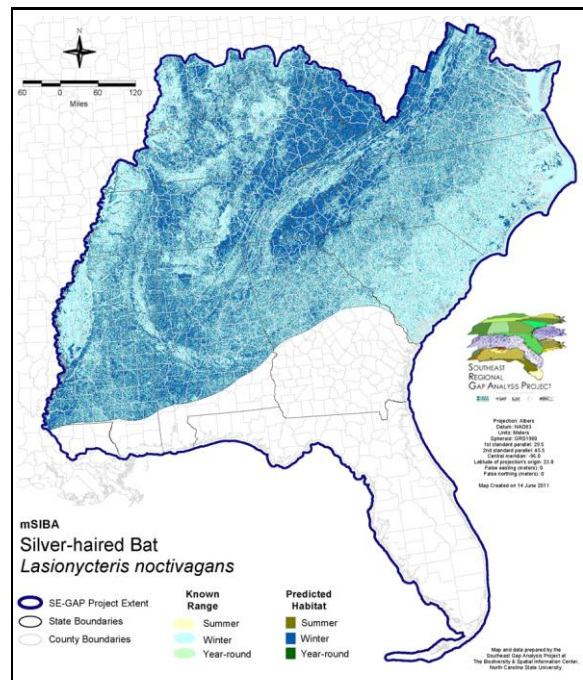
Taxa: Mammalian
 Order: Chiroptera
 Family: Vespertilionidae

SE-GAP Spp Code: **mSIBA**
 ITIS Species Code: 180014
 NatureServe Element Code: AMACC02010

KNOWN RANGE:



PREDICTED HABITAT:



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

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

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

Data Download: http://www.basic.ncsu.edu/segap/datazip/region/vert/mSIBA_se00.zip

PROTECTION STATUS:

Reported on March 14, 2011

Federal Status: ---

State Status: CA (None), CT (SC), ID (P), IN (SSC), KY (N), ME (SC), MS (Non-game species in need of management), NH (SC), NJ (U), NY (U), NY (U), OR (SV), RI (Not Listed), UT (None), UT (None), WI (SC), BC (4 (2005)), QC (Susceptible)

NS Global Rank: G5

NS State Rank: AK (S2), AL (SNR), AR (S3N), AZ (S3S4), CA (S3S4), CO (S5), CT (SNA), DC (S4N), DE (SU), FL (SNR), GA (S5), IA (S4), ID (S4?), IL (S3S4), IN (SNRN), KS (SNA), KY (S4S5), LA (S1), MA (S3M), MD (S5N), ME (SU), MI (S4), MN (SNR), MO (SNR), MS (SNA), MT (S3S4), NC (S4), NC (S4), ND (SNR), NE (S5), NH (S3B), NJ (SU), NM (S5), NV (S3), NY (S4B), NY (S4B), OH (SNR), OK (S2), OR (S3S4), PA (SUB), RI (SU), SC (SNR), SD (S4), TN (S4S5), TX (S4), UT (S4B), UT (S4B), VA (SUB,S4N), VA (SUB,S4N), VT (S2), WA (S3), WI (S2S4), WV (S2), WY (S3B), AB (S3), BC (S4S5), MB (S3S4B), MB (S3S4B), NB (S1?), NS (S1?), ON (S4), QC (S3), SK (S5B,S4M), SK (S5B,S4M)

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	32,911.9	< 1	32,285.2	< 1	0.0	0	0.0	0
Status 2	103,387.6	< 1	360,005.5	< 1	0.0	0	4,183.3	< 1
Status 3	2,928.2	< 1	2,142,428.4	6	50,885.6	< 1	191,336.9	< 1
Status 4	36.4	< 1	0.0	0	0.0	0	112.8	< 1
Total	139,264.0	< 1	2,534,719.1	7	50,885.6	< 1	195,632.9	< 1
	US Dept. of Energy		US Nat. Park Service		NOAA		Other Federal Lands	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	284,131.4	< 1	4.7	< 1	0.0	0
Status 2	0.0	0	11,249.8	< 1	1,103.9	< 1	0.0	0
Status 3	18,060.4	< 1	104,720.3	< 1	0.0	0	344.7	< 1
Status 4	0.0	0	0.0	0	0.0	0	0.0	0
Total	18,060.4	< 1	400,101.6	1	1,108.6	< 1	344.7	< 1
	Native Am. Reserv.		State Park/Hist. Park		State WMA/Gameland		State Forest	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	1,341.2	< 1	70.5	< 1	0.0	0
Status 2	0.0	0	17,915.6	< 1	390,096.5	1	1,373.0	< 1
Status 3	23,064.0	< 1	115,822.8	< 1	158,132.2	< 1	40,891.3	< 1
Status 4	0.0	0	0.0	0	75,520.6	< 1	0.0	0
Total	23,064.0	< 1	135,079.6	< 1	623,819.7	2	42,264.3	< 1
	State Coastal Reserve		ST Nat.Area/Preserve		Other State Lands		Private Cons. Easemt.	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	12,439.7	< 1	0.0	0	0.0	0
Status 2	4,370.9	< 1	63,018.7	< 1	4.0	< 1	1,265.0	< 1
Status 3	0.0	0	4,292.2	< 1	3,181.1	< 1	14,798.3	< 1
Status 4	0.0	0	2.1	< 1	1,451.8	< 1	0.0	0
Total	4,370.9	< 1	79,752.7	< 1	4,636.8	< 1	16,063.3	< 1
	Private Land - No Res.		Water		Overall Total			
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	0.0	0			363,184.6	< 1
Status 2	0.0	0	0.0	0			957,973.6	3
Status 3	0.0	0	0.0	0			2,870,886.2	13
Status 4	31,662,277.3	83	6,783.6	< 1			31,821,668.7	83
Total	31,662,277.3	83	6,783.6	< 1			36,013,713.1	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):

Winter Model:

Habitat Description: Silver-haired bats are migratory, generally migrating south for the winter and usually only found during spring and fall migration over major part of it's range (NatureServe 2005). Unlike many bat species, silver-haired bats appear to hibernate mainly in forested areas (<http://www.batcon.org/discover/species/Inoectiv.html>). Typical hibernation roosts for this species include hollow trees, under exfoliating bark, in wood piles, and to a lesser extent some individuals will utilize cliff/rock crevices, mines, or caves (Kunz 1982, Whitaker & Hamilton 1998). This species is known to be active throughout the year in southeastern Virginia and northeastern North Carolina with winter activity occurring on evenings when air temperature was 13 C or more (Padgett and Rose 1991, in NatureServe 2005). Silver-haired bats forage at tree-top level or over small ponds or streams. Amy Silvano 16jun05

***Little information regarding winter and migratory behavior of this species.

Ecosystem classifiers: Evergreen, mixed, hardwood, mesic, cove, montane, depressional wetlands (treed only, no shrub-dominated) and Floodplain/Riparian (excluding blackwater & herb mods). Amy Silvano 16jun05

Hydrography Mask:

Utilizes flowing water features with buffer of 2000m from selected water features.

Utilizes open water features with buffer of 2000m from selected water features.

Selected Map Units:

Functional Group	Map Unit Name
Anthropogenic	Low Intensity Developed
Anthropogenic	Quarry/Strip Mine/Gravel Pit
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	Atlantic Coastal Plain Dry and Dry-Mesic Oak Forest
Forest/Woodland	Atlantic Coastal Plain Fall-line Sandhills Longleaf Pine Woodland - Offsite Hardwood Modifier
Forest/Woodland	Atlantic Coastal Plain Mesic Hardwood and Mixed Forest
Forest/Woodland	Atlantic Coastal Plain Northern Mixed Oak-Heath Forest
Forest/Woodland	Central and Southern Appalachian Montane Oak Forest
Forest/Woodland	Central and Southern Appalachian Northern Hardwood Forest
Forest/Woodland	Central and Southern Appalachian Spruce-Fir Forest
Forest/Woodland	Central Appalachian Oak and Pine Forest
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 Limestone Forest
Forest/Woodland	East Gulf Coastal Plain Northern Dry Upland Hardwood Forest
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	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	South-Central Interior Mesophytic Forest

Forest/Woodland	Southern and Central Appalachian Cove Forest
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 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 Mesic 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
Rock Outcrop	Allegheny-Cumberland Sandstone Box Canyon and Rockhouse
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 Granitic Dome
Rock Outcrop	Southern Appalachian Montane Cliff
Rock Outcrop	Southern Appalachian Rocky Summit
Rock Outcrop	Southern Appalachian Spray Cliff
Rock Outcrop	Southern Interior Acid Cliff
Rock Outcrop	Southern Interior Calcareous Cliff
Rock Outcrop	Southern Interior Sinkhole Wall
Rock Outcrop	Southern Piedmont Cliff
Rock Outcrop	Southern Piedmont Granite Flatrock
Wetlands	Atlantic Coastal Plain Brownwater Stream Floodplain Forest
Wetlands	Atlantic Coastal Plain Clay-Based Carolina Bay Forested Wetland
Wetlands	Atlantic Coastal Plain Northern Basin Swamp and Wet Hardwood Forest
Wetlands	Atlantic Coastal Plain Peatland Pocosin
Wetlands	Atlantic Coastal Plain Streamhead Seepage Swamp, Pocosin, and Baygall
Wetlands	Central Appalachian Floodplain - Forest Modifier
Wetlands	Central Appalachian Riparian - Forest Modifier
Wetlands	Cumberland Riverscour
Wetlands	East Gulf Coastal Plain Large River Floodplain Forest - Forest Modifier
Wetlands	East Gulf Coastal Plain Northern Seepage Swamp
Wetlands	East Gulf Coastal Plain Small Stream and River Floodplain Forest
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	South-Central Interior Large Floodplain - Forest Modifier
Wetlands	South-Central Interior Small Stream and Riparian
Wetlands	Southern Piedmont Large Floodplain Forest - Forest Modifier
Wetlands	Southern Piedmont Seepage Wetland
Wetlands	Southern Piedmont Small Floodplain and Riparian Forest

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

- Barbour, R. W., and W. H. Davis. 1969. Bats of America. The University of Kentucky Press, Lexington, Kentucky.
- Barclay, R. M. R., P. A. Faure, and D. R. Farr. 1988. Roosting behavior and roost selection by migrating silver-haired bats (*LASIONYCTERIS NOCTIVAGANS*). *J. Mamm.* 69:821-825.
- 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.
- 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.
- Kunz, T.H. 1982. *Lasionycteris noctivagans*. *Am. Soc. Mamm., Mammalian Species No.* 172. 6 pp.
- Padgett, T. M., and R. K. Rose. 1991. Bats (Chiroptera:Vespertilionidae) of the Great Dismal Swamp of Virginia and North Carolina. *Brimleyana* 17:17-25.
- Parsons, H. J., D. A. Smith, and R. F. Whittam. 1986. Maternity colonies of silver-haired bats, *LASIONYCTERIS NOCTIVAGANS*, in Ontario and Saskatchewan. *J. Mamm.* 67:598- 600.
- Schmidly, D. J. 1991. The bats of Texas. Texas A & M Univ. Press, College Station. 188 pp.
- van Zyll de Jong, C. G. 1985. Handbook of Canadian Mammals. Volume 2. Bats. National Museums of Canada, Ottawa, Ontario, Canada. 212 pp.
- 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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This data was compiled and/or developed by the Southeast GAP Analysis Project at The Biodiversity and Spatial Information Center, North Carolina State University.