



SOUTHEAST GAP ANALYSIS PROJECT



Species Modeling Report

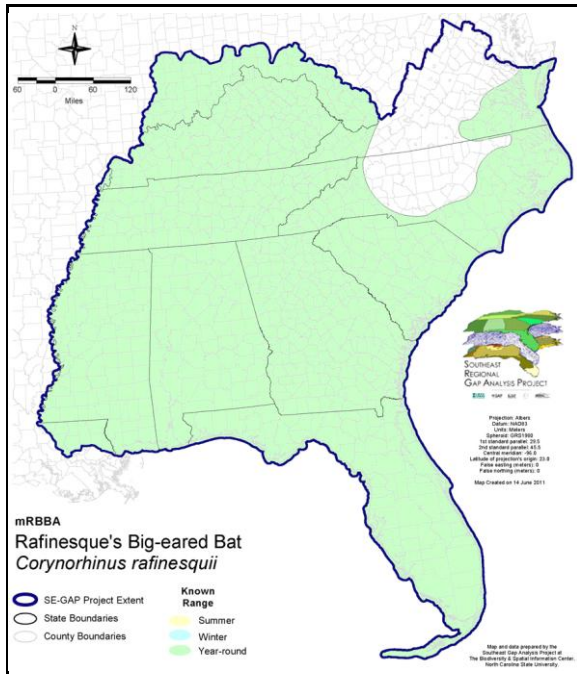
Rafinesque's Big-eared Bat

Corynorhinus rafinesquii

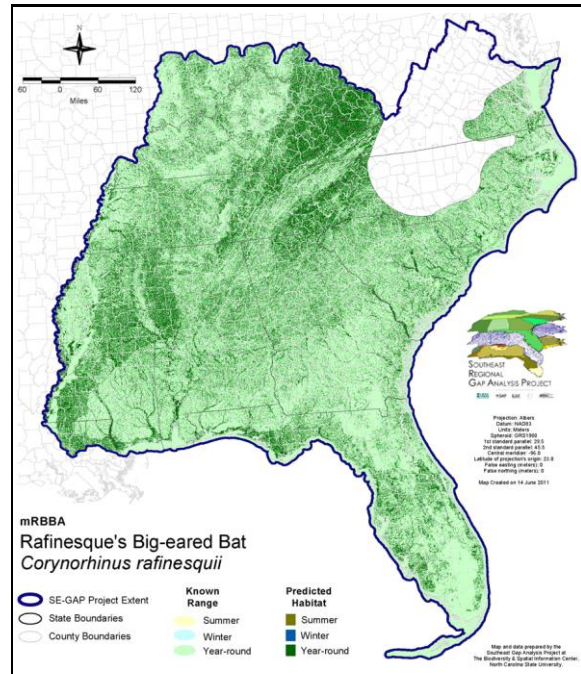
Taxa: Mammalian
 Order: Chiroptera
 Family: Vespertilionidae

SE-GAP Spp Code: **mRBBA**
 ITIS Species Code: 555664
 NatureServe Element Code: AMACC08020

KNOWN RANGE:



PREDICTED HABITAT:



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

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

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

Data Download: http://www.basic.ncsu.edu/segap/datazip/region/vert/mRBBA_se00.zip

PROTECTION STATUS:

Reported on March 14, 2011

Federal Status: ---

State Status: AL (SP), GA (R), IL (LE), IN (SSC), KY (S), MS (Non-game species in need of management), MS (Non-game species in need of management), NC (T), OH (SC), OK (Category II), SC (SE-Endangered), TN (D), TX (T), VA (LE)

NS Global Rank: G3G4

NS State Rank: AL (S2), AR (S3), FL (S2), GA (S3?), IL (S1), IN (SH), KY (S3), LA (S3S4), MO (SU), MS (S2), MS (S2), NC (S3), OH (SH), OK (S1), SC (S2?), TN (S3), TX (S3), VA (S2), WV (S1)

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	72,433.5	< 1	28,685.6	< 1	0.0	0	0.0	0
Status 2	126,078.4	< 1	166,687.7	< 1	0.0	0	775.1	< 1
Status 3	1,837.2	< 1	1,379,760.9	4	37,772.7	< 1	247,839.7	< 1
Status 4	24.4	< 1	< 0.1	< 1	0.0	0	105.3	< 1
Total	200,373.5	< 1	1,575,134.3	5	37,772.7	< 1	248,720.0	< 1
	US Dept. of Energy		US Nat. Park Service		NOAA		Other Federal Lands	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	158,264.5	< 1	8.6	< 1	5,619.9	< 1
Status 2	0.0	0	12,880.6	< 1	3,515.5	< 1	55.1	< 1
Status 3	27,580.3	< 1	65,185.1	< 1	0.0	0	3,935.9	< 1
Status 4	0.0	0	0.0	0	0.0	0	0.0	0
Total	27,580.3	< 1	236,330.2	< 1	3,524.1	< 1	9,610.8	< 1
	Native Am. Reserv.		State Park/Hist. Park		State WMA/Gameland		State Forest	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	1,012.3	< 1	25.4	< 1	0.0	0
Status 2	0.0	0	14,448.5	< 1	460,654.6	1	1,151.3	< 1
Status 3	21,402.6	< 1	336,873.8	1	131,829.8	< 1	139,604.9	< 1
Status 4	0.0	0	0.0	0	45,619.9	< 1	8.2	< 1
Total	21,402.6	< 1	352,334.6	1	638,129.6	2	140,764.3	< 1
	State Coastal Reserve		ST Nat.Area/Preserve		Other State Lands		Private Cons. Easemt.	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	11,234.1	< 1	0.0	0	0.0	0
Status 2	7,218.2	< 1	61,281.8	< 1	3.2	< 1	2,098.3	< 1
Status 3	0.0	0	13,813.7	< 1	7,319.2	< 1	61,525.0	< 1
Status 4	0.0	0	1.4	< 1	1,814.9	< 1	0.0	0
Total	7,218.2	< 1	86,331.0	< 1	9,137.3	< 1	63,623.3	< 1
	Private Land - No Res.		Water		Overall Total			
	ha	%	ha	%	ha	%		
Status 1	0.0	0	0.0	0	277,283.9	< 1		
Status 2	0.0	0	0.0	0	856,848.2	3		
Status 3	420.2	< 1	1.0	< 1	2,476,701.8	12		
Status 4	26,275,143.7	84	33,576.9	< 1	26,401,890.3	84		
Total	26,275,563.9	84	33,577.9	< 1	30,012,724.2	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: Rafinesque's Big-eared Bats primarily inhabit forested areas preferring bottomland hardwoods and riparian areas. They commonly roost in abandoned buildings, cisterns, tree cavities, the undersides of bridges (Trousdale & Beckett 2004) and to a lesser extent caves and abandoned mines (NatureServe2005). For summer roosting, it has been reported that this species seeks more open, well light conditions (Trousdale & Beckett 2004, NatureServe 2005). In Florida, this big-eared bat will utilize pine flatwoods and hardwood hammocks (Menzel et al. 2001, FL-GAP 2003). In the Coastal Plain they forage in bottomland hardwoods and in the Cumberlands utilize Upland Oak-Hickory environments generally avoiding Yellow Poplar and Beech-Maple areas (Menzel et al. 2001). Amy Silvano 22jun05

Ecosystem Classifiers: Mixed, Hardwood, Montane, hammocks, low urban, mines, flatwoods, floodplain/riparian (No herb mods). Amy Silvano 22jun05

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	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 Northern Mixed Oak-Heath Forest
Forest/Woodland	Central and Southern Appalachian Montane Oak 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 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 Plain Oak-Hickory Upland - Hardwood Modifier
Forest/Woodland	Northeastern Interior Dry Oak Forest - Mixed Modifier
Forest/Woodland	Northeastern Interior Dry Oak Forest-Hardwood Modifier
Forest/Woodland	Northern Atlantic Coastal Plain Dry Hardwood Forest
Forest/Woodland	Southern and Central Appalachian Oak Forest
Forest/Woodland	Southern and Central Appalachian Oak Forest - Xeric
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 - 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 Ridge and Valley Dry Calcareous Forest
Forest/Woodland	Southern Ridge and Valley Dry Calcareous Forest - Hardwood Modifier
Wetlands	Atlantic Coastal Plain Blackwater Stream Floodplain Forest - Forest Modifier
Wetlands	Atlantic Coastal Plain Brownwater Stream Floodplain Forest
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 Wet Longleaf Pine Savanna and Flatwoods
Wetlands	Atlantic Coastal Plain Small Blackwater River Floodplain Forest
Wetlands	Atlantic Coastal Plain Small Brownwater River Floodplain Forest

Wetlands	Central Appalachian Floodplain - Forest Modifier
Wetlands	Central Appalachian Riparian - Forest Modifier
Wetlands	Central Florida Pine Flatwoods
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 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 Florida Hardwood Hammock
Wetlands	South Florida Pine Flatwoods
Wetlands	South-Central Interior Large Floodplain - Forest Modifier
Wetlands	South-Central Interior Small Stream and Riparian
Wetlands	Southern Coastal Plain Blackwater River Floodplain Forest
Wetlands	Southern Coastal Plain Hydric Hammock
Wetlands	Southern Piedmont Large Floodplain Forest - Forest Modifier
Wetlands	Southern Piedmont Small Floodplain and Riparian Forest

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For more information:: SE-GAP Analysis Project / BaSIC
127 David Clark Labs
Dept. of Biology, NCSU
Raleigh, NC 27695-7617
(919) 513-2853
www.basic.ncsu.edu/segap

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by the Southeast GAP Analysis Project at
The Biodiversity and Spatial Information
Center, North Carolina State University.