



SOUTHEAST GAP ANALYSIS PROJECT



Species Modeling Report

Allegheny Woodrat

Neotoma magister

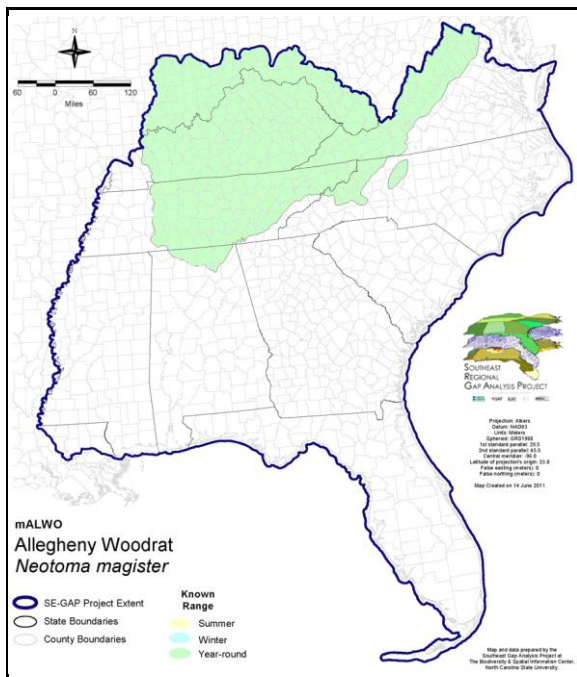
Taxa: Mammalian
Order: Rodentia
Family: Cricetidae

SE-GAP Spp Code: **mALWO**

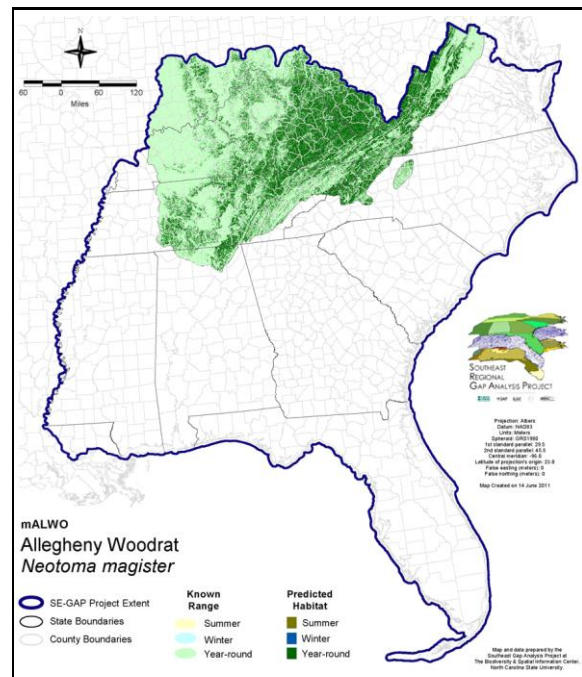
ITIS Species Code: 555661

NatureServe Element Code: AMAFF08100

KNOWN RANGE:



PREDICTED HABITAT:



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

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

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

Data Download: http://www.basic.ncsu.edu/segap/datazip/region/vert/mALWO_se00.zip

PROTECTION STATUS:

Reported on March 14, 2011

Federal Status: ---

State Status: CT (SC*), IN (SE), KY (N), MD (E), NC (SC), NJ (E), NY (E), OH (E), PA (PT), TN (D)

NS Global Rank: G3G4

NS State Rank: AL (S3), CT (SH), DC (SH), IN (S2), KY (S3S4), MD (S1), NC (S2), NJ (S1), NY (S1), OH (S1), PA (S3), TN (S3), VA (S3), WV (S3)

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	185.5	< 1	10,339.4	< 1	0.0	0	0.0	0
Status 2	0.0	0	201,750.5	2	0.0	0	0.0	0
Status 3	0.0	0	785,981.6	8	17,826.9	< 1	19,760.8	< 1
Status 4	24.2	< 1	0.0	0	0.0	0	0.0	0
Total	209.7	< 1	998,071.5	10	17,826.9	< 1	19,760.8	< 1
	US Dept. of Energy		US Nat. Park Service		NOAA		Other Federal Lands	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	78,853.3	< 1	0.0	0	0.0	0
Status 2	0.0	0	10,162.2	< 1	0.0	0	0.0	0
Status 3	6,705.3	< 1	52,603.1	< 1	0.0	0	0.0	0
Status 4	0.0	0	0.0	0	0.0	0	0.0	0
Total	6,705.3	< 1	141,618.6	1	0.0	0	0.0	0
	Native Am. Reserv.		State Park/Hist. Park		State WMA/Gameland		State Forest	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	244.8	< 1	58.5	< 1	0.0	0
Status 2	0.0	0	0.0	0	162,280.7	2	1,279.0	< 1
Status 3	0.0	0	34,102.4	< 1	52,314.4	< 1	9,119.2	< 1
Status 4	0.0	0	0.0	0	6,654.6	< 1	0.0	0
Total	0.0	0	34,347.2	< 1	221,308.2	2	10,398.2	< 1
	State Coastal Reserve		ST Nat.Area/Preserve		Other State Lands		Private Cons. Easemt.	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	9,360.9	< 1	0.0	0	0.0	0
Status 2	0.0	0	24,509.7	< 1	0.0	0	617.7	< 1
Status 3	0.0	0	866.3	< 1	206.3	< 1	6.3	< 1
Status 4	0.0	0	2.1	< 1	74.5	< 1	0.0	0
Total	0.0	0	34,738.9	< 1	280.8	< 1	624.0	< 1
	Private Land - No Res.		Water		Overall Total			
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	0.0	0	99,042.4 1			
Status 2	0.0	0	0.0	0	400,599.7 4			
Status 3	0.0	0	0.0	0	979,492.4 18			
Status 4	7,483,300.7	77	1,019.4	< 1	7,497,706.0 77			
Total	7,483,300.7	77	1,019.4	< 1	8,976,840.5 100			

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: The Allegheny woodrat is associated with wooded landscapes containing rock outcrops, cliffs, rocky river bluffs, boulder fields, talus slopes, and caves (Whitaker and Hamilton 1998). They are associated with varied forest types, including cove hardwoods, hemlock-birch, oak-pine, and various combinations of oaks, maples, hickories, beech, and yellow poplar. Grape, mountain laurel, rhododendron and ferns are also frequently mentioned. Woodrat populations are localized and have been referred to as being loosely organized colonies (Lee et al. 1982). They seek out ledges, fissures and small galleries among boulders, under suitably large talus slabs, and caves and rock faces to make large den and nest structures of sticks, leaves, trash and debris (Whitaker and Hamilton 1998). Occasionally, they will nest in buildings such as abandoned cabins and well houses, but generally they avoid humans. The breeding season is late winter to late summer, with the young born from March to September (Poole 1940, Merritt 1987). The gestation period is about 35 days (32 to 38 days) (Birney 1973). Two or three litters of usually two to four young are produced annually (Poole 1940, Schwartz and Schwartz 1959). Sexual maturity is reached in less than a year, and some early-born females (but not males) breed in the season of their birth (Wiley 1980). Woodrats are thought to live longer than most small rodents and one female is known to have lived more than three years in the wild (Fitch and Rainey 1956). However, mortality is normally high. Stacy Smith, 17June05

Elevation Mask: > 200m and < 1209m

Selected Map Units:

Functional Group	Map Unit Name
Forest/Woodland	Allegheny-Cumberland Dry Oak Forest and Woodland
Forest/Woodland	Allegheny-Cumberland Dry Oak Forest and Woodland - Hardwood Modifier
Forest/Woodland	Appalachian Hemlock-Hardwood 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 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	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	Ridge and Valley Calcareous Valley Bottom Glade and Woodland
Forest/Woodland	South-Central Interior Mesophytic Forest
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 Montane Pine Forest and Woodland
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
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	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
Wetlands	Central Appalachian Floodplain - Forest Modifier
Wetlands	Central Appalachian Riparian - Forest Modifier
Wetlands	South-Central Interior Large Floodplain - Forest Modifier
Wetlands	South-Central Interior Small Stream and Riparian

CITATIONS: Adams, W. F. 1987. NEOTOMA FLORIDANA Ord, eastern wood rat. Pages 29-32 in M. K. Clark (ed.). Endangered, threatened, and rare fauna of North Carolina, Part I:a re-evaluation of the mammals. Occas. Pap. North Carolina Biol. Surv.

Barbour, R. W., and W. H. Davis. 1974. Mammals of Kentucky. University Press of Kentucky, Lexington, Kentucky.

Birney, E. C. 1973. Systematics of three species of wood rats (genus NEOTOMA) in central North America. Univ. Kansas Mus. Nat. Hist. Misc. Publ. No 58.

Feldhammer, G. A., J. E. Gates and J. A. Chapman. 1984. Rare, threatened, endangered and extirpated mammals from Maryland. Pages 395-438 in Norden, A. W., D. C. Forester, and G. H. Fenwick (eds.). Threatened and endangered plants and animals of Maryland.

Fitch, H. S. and D. S. Rainey. 1956. Ecological observations of the woodrat (*Neotoma floridana*). University of Kansas Pub. Mus. Nat. Hist. 8:499-533.

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.

Hall, J. S. 1985. Eastern woodrat, NEOTOMA FLORIDANA Ord. Pages 362-5 in H. H. Genoways, and F. H. Brenner (eds.). Species of special concern in Pennsylvania. Carnegie Mus. Nat. Hist., Pittsburgh, Pennsylvania.

Hamilton, W. J. Jr. 1943. The mammals of Eastern United States. Comstock Publishing Company, Ithaca, New York.

Hamilton, William J., Jr., and John O. Whitaker, Jr. 1979. Mammals of the eastern United States. Cornell Univ. Press, Ithaca, New York. 346 pp.

Handley, C. O., Jr. 1991. Mammals. Pages 539-616 in K. Terwilliger, coordinator. Virginia's endangered species:proceedings of a symposium. McDonald and Woodward Publishing Company, Blacksburg, Virginia.

Hayes, J. P., and M. E. Richmond. 1993. Clinal variation and morphology of woodrats (NEOTOMA) of the eastern United States. J. Mamm. 74:204-216.

Hayes, J. P., and R. G. Harrison. 1992. Variation in mitochondrial DNA and the biogeographic history of woodrats (NEOTOMA) of the eastern United States. Systematic Biology 41:331-344.

Lee, D. S., L. B. Funderburg Jr., and M. K. Clark. 1982. A distributional survey of North Carolina mammals. Occasional Papers of the North Carolina Biological Survey, No. 1982-10. North Carolina State. Mus. Nat. Hist., Raleigh, North Carolina. 72 pp.

Merritt, J. F. 1987. Guide to the mammals of Pennsylvania. University of Pittsburgh, Pittsburgh, PA.

Patterson, R. C. 1933. Notes on NEOTOMA PENNSYLVANICA, with special reference to the genital organization. Proc. West Virginia Acad. Sci. 33(15):38-42.

Poole, E.L. 1940. A life history sketch of the Allegheny woodrat. J. Mammal. 21:249-270.

Schwartz, C. W., and E. R. Schwartz. 1959. The wild mammals of Missouri. University of Missouri Press, Columbia, Missouri.

Sciascia, J. C. 1990. Eastern woodrats decline in tri-state area. Nongame News Winter 1990:1,8.

Thompson, E. 1984. The eastern woodrat (NEOTOMA FLORIDANA) in Garrett County, Maryland. Pages 439-41 in A. W. Norden, D. C. Forester, and G. H. Fenwick (eds.). Threatened and endangered plants and animals of Maryland. Maryland Natural Heritage Program, An

Whitaker, J.O. Jr. and W.J. Hamilton, Jr. 1998. Mammals of the eastern United States. Cornell Univ. Press, Ithaca, New York. 583 pp.

Wiley, R. W. 1980. NEOTOMA FLORIDANA. Am. Soc. Mamm., Mammalian Species No. 139:1-7.

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