



SOUTHEAST GAP ANALYSIS PROJECT



Species Modeling Report

White-footed Mouse

Peromyscus leucopus

Taxa: Mammalian

Order: Rodentia

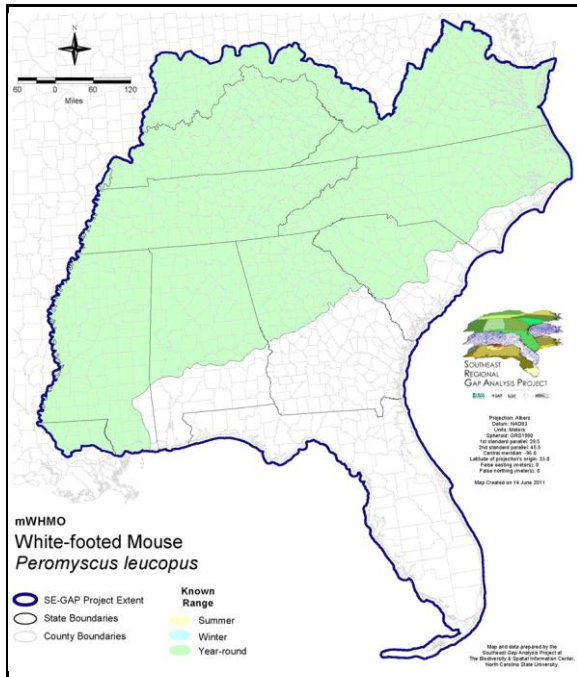
Family: Cricetidae

SE-GAP Spp Code: **mWHMO**

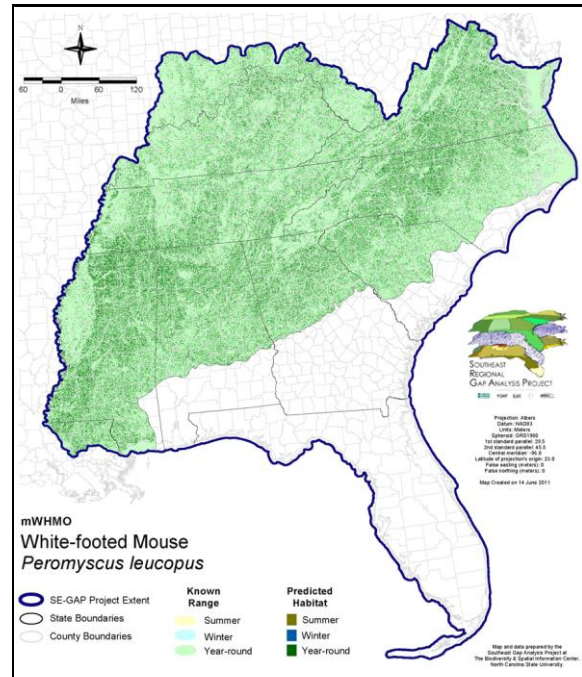
ITIS Species Code: 180278

NatureServe Element Code: AMAFF03070

KNOWN RANGE:



PREDICTED HABITAT:



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

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

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

Data Download: http://www.basic.ncsu.edu/segap/datazip/region/vert/mWHMO_se00.zip

PROTECTION STATUS:

Reported on March 14, 2011

Federal Status: ---

State Status: KY (N), MS (Non-game species in need of management), NJ (S), NY (U), RI (Not Listed), QC (Non suivie)

NS Global Rank: G5

NS State Rank: AL (S4), AR (S5), AZ (S5), CO (S4), CT (S5), DC (S5), DE (S5), GA (S5), IA (S5), IL (S5), IN (S4), KS (S5), KY (S5), LA (S5), MA (S5), MD (S5), ME (S5), MI (S5), MN (SNR), MO (SNR), MS (S5), MT (S4), NC (S5), ND (SNR), NE (S5), NH (S5), NJ (S5), NM (S5), NY (S5), OH (SNR), OK (S5), PA (S5), RI (S5), SC (SNR), SD (S5), TN (S5), TX (S5), VA (S5), VT (S5), WI (S5), WV (S5), WY (S3), AB (SU), NS (S5), ON (S5), QC (S5), SK (S3S4)

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 | 10,278.0 | < 1 | 1,173.7 | < 1 | 0.0 | 0 | 0.0 | 0 |
| Status 2 | 24,834.2 | < 1 | 19,241.9 | < 1 | 0.0 | 0 | 1,304.5 | < 1 |
| Status 3 | 469.4 | < 1 | 148,822.2 | < 1 | 26,069.9 | < 1 | 53,971.8 | < 1 |
| Status 4 | 33.0 | < 1 | 0.0 | 0 | 0.0 | 0 | 22.9 | < 1 |
| Total | 35,614.6 | < 1 | 169,237.8 | 1 | 26,069.9 | < 1 | 55,299.2 | < 1 |
| | US Dept. of Energy | | US Nat. Park Service | | NOAA | | Other Federal Lands | |
| | ha | % | ha | % | ha | % | ha | % |
| Status 1 | 0.0 | 0 | 8,174.4 | < 1 | 0.0 | 0 | 0.0 | 0 |
| Status 2 | 0.0 | 0 | 660.3 | < 1 | 61.1 | < 1 | 0.0 | 0 |
| Status 3 | 6,593.9 | < 1 | 22,390.8 | < 1 | 0.0 | 0 | 1,198.8 | < 1 |
| Status 4 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 |
| Total | 6,593.9 | < 1 | 31,225.6 | < 1 | 61.1 | < 1 | 1,198.8 | < 1 |
| | Native Am. Reserv. | | State Park/Hist. Park | | State WMA/Gameland | | State Forest | |
| | ha | % | ha | % | ha | % | ha | % |
| Status 1 | 0.0 | 0 | 115.3 | < 1 | 5.7 | < 1 | 0.0 | 0 |
| Status 2 | 0.0 | 0 | 1,017.1 | < 1 | 57,527.5 | < 1 | 63.0 | < 1 |
| Status 3 | 4,660.9 | < 1 | 20,816.2 | < 1 | 35,462.9 | < 1 | 7,192.5 | < 1 |
| Status 4 | 0.0 | 0 | 0.0 | 0 | 17,860.1 | < 1 | 0.0 | 0 |
| Total | 4,660.9 | < 1 | 21,948.6 | < 1 | 110,856.2 | < 1 | 7,255.5 | < 1 |
| | State Coastal Reserve | | ST Nat.Area/Preserve | | Other State Lands | | Private Cons. Easemt. | |
| | ha | % | ha | % | ha | % | ha | % |
| Status 1 | 0.0 | 0 | 1,119.8 | < 1 | 0.0 | 0 | 0.0 | 0 |
| Status 2 | 1,561.7 | < 1 | 6,526.8 | < 1 | 2.5 | < 1 | 339.9 | < 1 |
| Status 3 | 0.0 | 0 | 1,613.3 | < 1 | 1,117.0 | < 1 | 5,894.9 | < 1 |
| Status 4 | 0.0 | 0 | 0.0 | 0 | 993.4 | < 1 | 0.0 | 0 |
| Total | 1,561.7 | < 1 | 9,259.9 | < 1 | 2,112.9 | < 1 | 6,234.8 | < 1 |
| | Private Land - No Res. | | Water | | Overall Total | | | |
| | ha | % | ha | % | ha | % | ha | % |
| Status 1 | 0.0 | 0 | 0.0 | 0 | 20,866.9 < 1 | | | |
| Status 2 | 0.0 | 0 | 0.0 | 0 | 113,140.4 < 1 | | | |
| Status 3 | 0.0 | 0 | 0.0 | 0 | 336,274.7 3 | | | |
| Status 4 | 15,909,729.7 | 96 | 14,196.3 | < 1 | 15,960,662.6 96 | | | |
| Total | 15,909,729.7 | 96 | 14,196.3 | < 1 | 16,430,944.6 100 | | | |

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: White-footed mice are primarily dwellers of forest edges, brushy areas, and woodland borders. In general they prefer deciduous forests, however upland mixed forests, hedgerows of ag areas, edges of clearcuts, riparian zones, and urban settings are also common habitats for this species. The white-footed mouse is less common at high elevations, in cool, moist coniferous forests (Wilson and Ruff 1999) and swamps. ALS
Jan 05

Ecosystem Classifiers: Xeric Forests, Mixed Forest/Woodland, Dry Dry Mesic Hardwood Forest/Woodland, Evergreens with shrubby understory, Mesic Hardwood, Glade Woodlands, Anthropogenic, Floodplain/Riparian (non-herbaceous)

Mask of Forest/Open Ecotone: Include within 60m of ecotone edge.

Mask of Woodlands and Shrublands: Include all woodland and shrubland interiors and 60m buffer from them.

Selected Map Units:

| Functional Group | Map Unit Name |
|------------------|---|
| Anthropogenic | Deciduous Plantations |
| Anthropogenic | High Intensity Developed |
| Anthropogenic | Low Intensity Developed |
| Anthropogenic | Medium Intensity Developed |
| Anthropogenic | Pasture/Hay |
| Anthropogenic | Successional Shrub/Scrub (Clear Cut) |
| Anthropogenic | Successional Shrub/Scrub (Other) |
| Anthropogenic | Successional Shrub/Scrub (Utility Swath) |
| 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 | Atlantic Coastal Plain Dry and Dry-Mesic Oak Forest |
| Forest/Woodland | Atlantic Coastal Plain Mesic Hardwood and Mixed Forest |
| Forest/Woodland | Atlantic Coastal Plain Northern Mixed Oak-Heath 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 | 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 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 | Ridge and Valley Calcareous Valley Bottom Glade and Woodland |
| 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 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 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 |
| Wetlands | Atlantic Coastal Plain Blackwater Stream Floodplain Forest - Forest Modifier |
| Wetlands | Atlantic Coastal Plain Brownwater Stream Floodplain Forest |
| 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 | East Gulf Coastal Plain Large River Floodplain Forest - Forest 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-Central Interior Large Floodplain - Forest Modifier |
| Wetlands | South-Central Interior Small Stream and Riparian |
| Wetlands | Southern Coastal Plain Blackwater River Floodplain Forest |
| Wetlands | Southern Piedmont Large Floodplain Forest - Forest Modifier |
| Wetlands | Southern Piedmont Small Floodplain and Riparian Forest |

- CITATIONS:** Adkins, R. M., et al. 1991. Hybrid breakdown in PEROMYSCUS LEUCOPUS and examination of the recombinational-breakdown model. *J. Mamm.* 72:535-541.
- Baker, Rollin H. 1983. *Michigan mammals*. Michigan State University Press. 642 pp.
- Banfield, A.W.F. 1974. *The mammals of Canada*. University of Toronto Press, Toronto.
- Blem, L.B., and C.R. Blem. 1975. The effect of flooding on length of residency in the white-footed mouse, *Peromyscus leucopus*. *Am. Midl. Nat.* 94(1):232-236.
- Carleton, M. D. 1989. Systematics and evolution. Pages 7-141 in G. L. Kirkland, Jr., and J. N. Layne, eds. *Advances in the study of PEROMYSCUS (Rodentia)*. Texas Tech Univ. Press, Lubbock.
- Choate, J.R. 1973. Identification and recent distribution of white-footed mice (*Peromyscus*) in New England. *J. Mammal* 54(1):41-49.
- Cummings, J. R., and S. H. Vessey. 1994. Agricultural influences on movements of white-footed mice (*Peromyscus leucopus*). *Am. Midl. Nat.* 132:209-218.
- 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.
- Hoffmeister, D. F. 1986. *Mammals of Arizona*. Univ. Arizona Press and Arizona Game and Fish Dept. 602 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.
- King, J. A. (ed.). 1968. *Biology of PEROMYSCUS (Rodentia)*. *Am. Soc. Mamm. Spec. Publ. No. 2*. 593 pp.

- Kirkland, G. L., Jr., and J. N. Layne. 1989. *Advances in the study of PEROMYSCUS (Rodentia)*. Texas Tech Univ. Press, Lubbock.
- Krohne, D. T., and R. Baccus. 1985. Genetic and ecological structure of a population of *Peromyscus leucopus*. *J. Mamm.* 66:529-537.
- Lackey, J. A., D. G. Huckaby, and B. G. Ormiston. 1985. *PEROMYSCUS LEUCOPUS*. *Mammalian Species No.* 247:1-10.
- 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.
- Linzey, Alicia V., & Donald W. Linzey. 1971. *Mammals of the Great Smoky Mountains National Park*. The University of Tennessee Press, Knoxville, Tennessee. 114 p.
- Ostfeld, R. S., M. C. Miller, and J. Schnurr. 1993. Ear tagging increases tick (*Ixodes dammini*) infestation rates of white-footed mice (*PEROMYSCUS LEUCOPUS*). *J. Mamm.* 74:651-655.
- Paradiso, J. L. 1960. A new white-footed mouse (*PEROMYSCUS LEUCOPUS*) from southeastern Virginia. *Proceedings of the Biological Society of Washington* 73:21-23.
- Schwartz, Charles W., and Elizabeth R. Schwartz. 1981. *The wild mammals of Missouri*. University of Missouri Press, Columbia. 356 pp.
- Webster, W. D., J. F. Parnell and W. C. Biggs Jr. 1985. *Mammals of the Carolinas, Virginia, and Maryland*. The University of North Carolina Press, Chapel Hill, NC.
- 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.
- Wilson, D.E. and S. Ruff. 1999. *The Smithsonian book of North American mammals*. Washington, DC, Smithsonian Inst. Press. 750 p.
- Wolf, M., and G.O. Batzli. 2002. Effects of forest edge on populations of white-footed mice *Peromyscus leucopus*. *Ecography* 25 (2), 193–199.
- Wolfe, J. O., R. D. Dueser, and K. S. Berry. 1985. Food habits of sympatric *Peromyscus leucopus* and *Peromyscus maniculatus*. *J. Mamm.* 66:795-798.
- Yahner, R. H. 1992. Dynamics of a small mammal community in a fragmented forest. *Am. Midl. Nat.* 127:381-391.

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

Compiled: 15 September 2011

This data was compiled and/or developed by the Southeast GAP Analysis Project at The Biodiversity and Spatial Information Center, North Carolina State University.