

Species: Allegheny Woodrat (*Neotoma magister*)

Global Rank: G3G4

State Rank: S3

State Wildlife Action Plan: Immediate Concern Species - Responsibility

Species/Pennsylvania Threatened Species

Climate Change Vulnerability: Moderately Vulnerable

Confidence: Very High

#### Habitat:

The Allegheny woodrat once inhabited a larger range extending from southwestern Connecticut west to Indiana and south to central Alabama. The Allegheny woodrat is now extirpated from Connecticut and New York with documented population declines in the remaining northern states. Less is known about their status in southern states due to a lack of recent surveys (Butchkoski 2010). The Allegheny woodrat typically uses rocky cliffs, talus slopes, and caves dispersed across primarily forested landscapes (Merritt 1987; Castleberry et al. 2001; Castleberry et al. 2002).

#### Current Threats:

Major threats to the species include loss of habitat and population isolation (NatureServe 2010). Other threats that have been attributed to the decline of the species include loss of American chestnut as an important food source, gypsy moth infestations that damage oak trees resulting in a reduction in hard mast, fatal infections by raccoon roundworm parasite, and land use alterations resulting in increased predation pressure (Balcom and Yahner 1996; Butchkoski 2010).

#### Main Factors Contributing to Vulnerability Rank:

*Distribution relative to natural and anthropogenic barriers:* Although suitable habitat is available within and north of its current range in Pennsylvania, the species is limited in its ability to disperse due to landscape fragmentation, agricultural fields, and urbanization.

*Dispersal and movements:* The species is limited in how far it can move between rocky habitat patches. Castleberry et al. (2001) found that Allegheny woodrats moved an average of 152 m within their home range.

*Physical habitat specificity:* The species is moderate to highly specialized in its physical habitat requirements. The Allegheny woodrat typically uses rocky cliffs, talus slopes, and caves dispersed across primarily forested landscapes (Merritt 1987; Castleberry et al. 2001; Castleberry et al. 2002).

#### References:

Balcom, B.J. and R.H. Yahner. 1996. Microhabitat and landscape characteristics associated with the threatened Allegheny woodrat. *Conservation Biology* 10:515-525.

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Castleberry, N.L., S.B. Castleberry, W.M. Ford, P.B. Wood, and M.T. Mengak. 2002. Allegheny woodrat (*Neotoma magister*) food habits in the central Appalachians. *American Midland Naturalist* 147:80-92.

Castleberry, S.B., W.M. Ford, P.B. Wood, and N.L. Castleberry. 2001. Movement of Allegheny woodrats in relation to timber harvesting. *Journal of Wildlife Management* 65:148-156.

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