

Heritage Rank Status Factors

Elcode AMAFF23022
Gname ARBORIMUS LONGICAUDUS SILVICOLA
Gcomname NW RED TREE VOLE

Number of Occurrences

B = 6 - 20
C = 21 - 80

Comments An unknown number of occurrences. An unknown number of occurrences. It has not been seen by the USFS or BLM in Survey and Manage Species inventories over the last 3 years.

Number of Occurrences with Good Viability

U = Unknown what number of occurrences with good viability

Comments

Population Size

U = Unknown

Comments Total adult population size is unknown.

Range Extent

F = 20,000-200,000 km² (about 8,000-80,000 square miles)

Comments This subspecies is known only from northwestern Oregon, in Clatsop, Tillamook and Lincoln Counties.

Area of Occupancy

C = 4-20 km² (about 1,000-5,000 acres)
D = 20-100 km² (about 5,000-25,000 acres)

LC = 40-200 km (about 25-125 miles)
LD = 200-1,000 km (about 125-620 miles)

Comments Distribution is increasingly patchy, with fragmentation of forest habitats.

Long-term Trend in Population Size, Extent of Occurrence, Area of Occupancy, and/or Number or Condition of Occurrences

B = Large Decline (decline of 75-90%)
C = Substantial Decline (decline of 50-75%)

Comments Population trend unknown, but distribution has been reduced because much of its preferred habitat has been lost and continues to decline due to logging (Corn and Bury 1988, Verts and Carraway 1998). Localized extirpations are known. In spite of sampling, this subspecies not seen in a few years.

Short-term Trend in Population Size, Extent of Occurrence, Area of Occupancy, and/or Number or Condition of Occurrences

D = Declining. Decline of 10-30% in population, range, area occupied, and/or number or condition of occurrences

Comments Extent of range appears to be exhibiting declines.

Threats

A = Substantial, imminent threat. Threat is moderate to severe and imminent for most (> 60%) of the population, occurrences, or area. Ecological community occurrences are directly impacted over a widespread area, either causing irreversible damage or requiring long term recovery

Scope High **Severity** Moderate **Immediacy** High

Comments Threats include loss of preferred old-growth forest habitat and forest fragmentation by clear-cutting practices (Verts and Carraway 1998, Thomas et al. 1993). Habitat is becoming increasingly fragmented. In the range of silvicola, habitat fragmentation is especially high, due to limited amounts of public lands.

Number of Appropriately Protected and Managed Occurrences

U = Unknown whether any occurrences are appropriately protected and managed

Comments Basic life history information and habitat requirements, including minimum patch size of suitable habitat to maintain colony, are not currently known (Verts and Carraway 1998).

Intrinsic Vulnerability

B = Moderately Vulnerable. Species exhibits moderate age of maturity, frequency of reproduction, and/or fecundity such that populations generally tend to recover from decreases in abundance over a period of several years (on the order of 5-20 years or 2-5 generations); or species has moderate dispersal capability such that extirpated populations generally become reestablished through natural recolonization (unaided by humans). Ecological community occurrences may be susceptible to changes in composition and structure but tend to recover through natural processes given reasonable time (10-100 years).

Comments Species disperses slowly and with limited capabilities; low reproductive rate (C. Maser personal communication). Early seral stage forests may be a barrier to dispersal.

Environmental Specificity

B = Narrow. Specialist or community with key requirements common.

Comments Optimum habitat is wet and mesic old-growth Douglas-fir forest.

Other Considerations

NRANK - N1Q

Edition 11/7/2003 **Edauthor** Jimmy Kagan

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Reasons

Restricted distribution; prefers old-growth forest habitats that are being eliminated and fragmented by large scale timber harvesting. This subspecies occurs in the most impacted habitat. In spite of inventories related to the survey and manage program, it has not been recorded by the BLM or the USFS in over three years. The taxonomic status is somewhat uncertain, with new, unpublished evidence (Bellinger et al, in press) indicating either that this might not be a valid taxon, or that the northern Oregon Cascade populations should be included in with this taxon. Until new information is published, this must be considered to be a very endangered subspecies.

BCD Sources

Hayes, J. P. 1996. ARBORIMUS LONGICAUDUS. Mammalian Species 532:1-5.

Thomas, J. W., et al. 1993. Viability assessments and management considerations for species associated with late-successional and old-growth forests of the Pacific Northwest. The report of the Scientific Analysis Team. USDA Forest Service, Spotted Owl EIS Team, Portland Oregon. 530 pp.

Verts, B. J., and L. N. Carraway. 1998. Land mammals of Oregon. University of California Press, Berkeley. xvi + 668 pp.

New Sources

Bellinger, R.M., S.M. Haig, E.D. Forsman, and T.D. Mullins. 2003. Taxonomic relationships among Phanacomys voles inferred by cytochrome-b. Unpublished manuscript, USGS Forest and Reangeland Ecosystem Science Center, Corvallis, OR.

Corn, P. S., and R. B. Bury. 1988. Distribution of the voles ARBORIMUS LONGICAUDUS and PHENACOMYS INTERMEDIUS in the central Oregon Cascades. J. Mamm. 69:427-29.

Jones, C., et al. 1997. Revised checklist of North American mammals north of Mexico, 1997. Occasional Papers, Museum of Texas Tech University (173):1-19.