

Genus *Brachylagus* - taxonomic description

^{1,2,3}I. Valentin Petrescu-Mag

¹ Department of Environmental Engineering and Protection, Faculty of Agriculture, University of Agricultural Sciences and Veterinary Medicine Cluj-Napoca, Romania;

² Bioflux SRL, Cluj-Napoca, Romania; ³ University of Oradea, Oradea, Romania.

Corresponding author: I. V. Petrescu-Mag, zoobiomag2004@yahoo.com

Key Words: *Brachylagus idahoensis*, Lagomorpha, pygmy rabbits.

General Description. The genus *Brachylagus* is a taxonomic grouping within the order Lagomorpha, encompassing small-sized rabbits commonly known as pygmy rabbits (Green & Flinders 1980). These diminutive lagomorphs exhibit unique adaptations to their environments, particularly in North America, where they are predominantly found. The genus consists of a single recognized species, *Brachylagus idahoensis* (Green & Flinders 1980), though there may be some regional variations in populations.

Taxonomy

Kingdom: Animalia

Phylum: Chordata

Subphylum: Vertebrata

Class: Mammalia

Order: Lagomorpha

Family: Leporidae

Subfamily: Leporinae

Genus: *Brachylagus*

Type species: *Brachylagus idahoensis* (synonym: *Sylvilagus idahoensis*)

Common name: Pygmy rabbits (Figure 1)

Morphology

Size. *Brachylagus* species are notably small in size compared to other rabbits, with adults typically ranging from 9 to 12 inches (23 to 30 cm) in length (Green & Flinders 1980).

Coloration. The fur coloration varies with the environment, ranging from brownish-gray to sandy, providing effective camouflage in their natural habitats (Green & Flinders 1980).

Ears. Like many lagomorphs, pygmy rabbits have large ears that aid in thermoregulation and enhance their acute sense of hearing.

Tail. The tail is typically short and inconspicuous, contributing to their streamlined appearance (Green & Flinders 1980).



Figure 1. Pygmy rabbit (*Brachylagus idahoensis*). Source: Wikipedia.org - "Photo by United States Bureau of Land Management Photo Courtesy of United States Bureau of Land Management".

Habitat and Distribution. Pygmy rabbits are primarily found in the sagebrush ecosystems of western North America, including regions of Idaho, Montana, Utah, Oregon, and Washington (Flinders et al 2005; Crawford 2008). They exhibit a preference for areas with dense sagebrush cover, providing both food and shelter. These rabbits are adapted to a semi-arid environment, where sagebrush serves as a crucial component of their diet (Dobler & Dixon 1990).

Behavior

Social structure. *Brachylagus* species are generally solitary, with individuals forming loose associations. They are known for their secretive and elusive behavior, relying on their cryptic coloration and burrow systems for protection.

Burrowing. Pygmy rabbits are adept burrowers, creating complex underground burrow systems that provide shelter from predators and environmental extremes (Rachlow et al 2005).

Nocturnal. While they may be active during the day, pygmy rabbits are often more active during the dawn and dusk, displaying nocturnal tendencies (Larrucea & Brussard 2009).

Reproduction

Breeding season. Breeding typically occurs in the spring and early summer months (Green & Flinders 1980).

Gestation. The gestation period is relatively short, lasting around 27 to 30 days (Green & Flinders 1980).

Litter size. Females give birth to small litters (Green & Flinders 1980), usually consisting of four to six offspring.

Maturation. Young pygmy rabbits mature rapidly, reaching sexual maturity within a few months (Green & Flinders 1980).

Conservation Status. The conservation status of *Brachylagus* species, particularly *Brachylagus idahoensis*, is a subject of concern. Due to habitat loss, degradation, and fragmentation, coupled with predation and disease, pygmy rabbit populations have faced challenges. Conservation efforts are underway to preserve their sagebrush habitats and ensure the survival of this unique genus (Thines et al 2004).

Human Interaction. Human activities, including agriculture, urban development, and resource extraction, have contributed to the decline of pygmy rabbit populations (Thines et al 2004; Camp et al 2014). Efforts to mitigate these impacts involve habitat restoration, conservation planning, and research on the ecology and behavior of *Brachylagus* species.

Conclusions. The genus *Brachylagus* represents a fascinating group of small rabbits adapted to specific ecological niches in the sagebrush ecosystems of North America. As conservation initiatives continue, understanding the taxonomy, morphology, behavior, and ecological requirements of these pygmy rabbits becomes crucial for their long-term survival in the face of ongoing environmental challenges.

Conflict of Interest. The author declares that there is no conflict of interest.

References

- Camp M. J., Rachlow J. L., Shipley L. A., Johnson T. R., Bockting K. D., 2014 Grazing in sagebrush rangelands in western North America: implications for habitat quality for a sagebrush specialist, the pygmy rabbit. *The Rangeland Journal* 36(2):151-159.
- Crawford J. A., 2008 Survival, movements and habitat selection of pygmy rabbits (*Brachylagus idahoensis*) on the Great Basin of southeastern Oregon and northwestern Nevada. Dissertation, available at: https://ir.library.oregonstate.edu/concern/graduate_thesis_or_dissertations/jm214r435.
- Dobler F. C., Dixon K. R., 1990 The pygmy rabbit *Brachylagus idahoensis*. In: Rabbits, hares, and pikas: status survey and conservation action plan. Chapman J. A., Flux J. E. C. (eds), IUCN/SSC Lagomorph Specialist Group, Gland, Switzerland, pp. 111-115.
- Flinders J. T., Alston J. L., Larsen R. T., 2005 Habitat use, behaviour, and limiting factors affecting the pygmy rabbit (*Brachylagus idahoensis*) in Grass Valley, Utah. Bureau of Land Management, Richfield, Utah 51 p.
- Green J. S., Flinders J. T., 1980 *Brachylagus idahoensis*. *Mammalian Species* 125:1-4.
- Larucea E. S., Brussard P. F., 2009 Diel and seasonal activity patterns of pygmy rabbits (*Brachylagus idahoensis*). *Journal of Mammalogy* 90(5):1176-1183.
- Rachlow J. L., Sanchez D. M., Estes-Zumpf W. A., 2005 Natal burrows and nests of free-ranging pygmy rabbits (*Brachylagus idahoensis*). *Western North American Naturalist* 65(1):136-139.
- Thines N. J. S., Shipley L. A., Saylor R. D., 2004 Effects of cattle grazing on ecology and habitat of Columbia Basin pygmy rabbits (*Brachylagus idahoensis*). *Biological Conservation* 119(4):525-534.
- ***https://en.wikipedia.org/wiki/Pygmy_rabbit#/media/File:BRACHYLAGUS_IDAHOENSIS.jpg

Received: 19 August 2023. Accepted: 10 October 2023. Published online: 14 November 2023.

Authors:

Ioan Valentin Petrescu-Mag, Department of Environment and Plant Protection, Faculty of Agriculture, University of Agricultural Sciences and Veterinary Medicine, 3-5 Calea Mănăştur, 400372 Cluj-Napoca, Cluj, Romania; SC Bioflux SRL, 54 Ceahlău St., 400488 Cluj-Napoca, Cluj, Romania; University of Oradea, 1 Universitatii St., 410087 Oradea, Bihor, Romania, e-mail: zoobiomag2004@yahoo.com

This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution and reproduction in any medium, provided the original author and source are credited.

How to cite this article:

Petrescu-Mag I. V., 2023 Genus *Brachylagus* - taxonomic description. Rabbit Gen 13(1):1-4.