

FIELD GUIDE TO NORTH AMERICAN MAMMALS

Southern Red-backed Vole

(Clethrionomys gapperi)

ORDER: Rodentia
FAMILY: Muridae

Conservation Status: The Kentucky red-backed vole (C. gapperi maurus) is Near Threatened.

Southern Red-backed Voles, like other voles, are active year-round. They do not hibernate or reduce their metabolism and enter a state of torpor to conserve energy against the cold. They breed from March through November, producing two or three litters of 4-5 young each year. By three months of age, the young voles are sexually mature and ready to reproduce. This species is semi-fossorial, using burrow systems built by other rodents and natural aboveground runways through logs, rocks, and roots of trees.

Also known as:

Red-backed Vole, Gapper's Red-backed Mouse, Boreal Red-backed Vole, Red-backed Mouse

Sexual Dimorphism:

None

Length:

Range: 116-172 mm

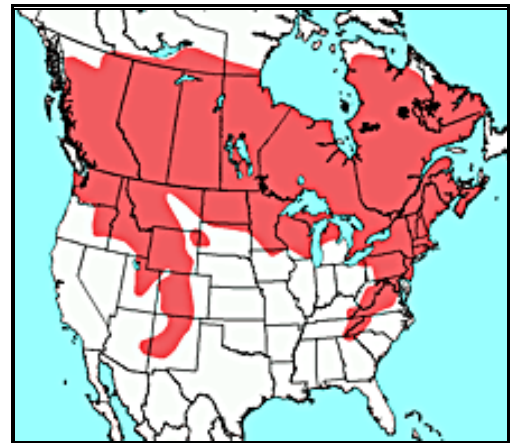
Weight:

Range: 6-42 g



Clethrionomys gapperi - grayish-brown and reddish variants

Credit: painting by Todd Zalewski from Kays and Wilson's Mammals of North America, © Princeton University Press (2002)



FIELD NOTES

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Four horizontal lines for field notes.



FIELD GUIDE TO NORTH AMERICAN MAMMALS

Long-tailed Vole
(Microtus longicaudus)

ORDER: Rodentia
FAMILY: Muridae

Long-tailed Voles need cool, moist habitats, so they are found mostly near the peaks of mountain ranges. Fruits and seeds make up the bulk of their diet, but they also eat fungi, bark, and leaves if necessary. Long-tailed Voles live less than one year on average, and females produce only two litters during that time, with an average of five pups per litter. Owls and hawks prey on them, as do some mammals, including martens, long-tailed weasels, and ermine.



Microtus longicaudus – gray and brown variants

Credit: painting by Todd Zalewski from Kays and Wilson's Mammals of North America, © Princeton University Press (2002)

Sexual Dimorphism:

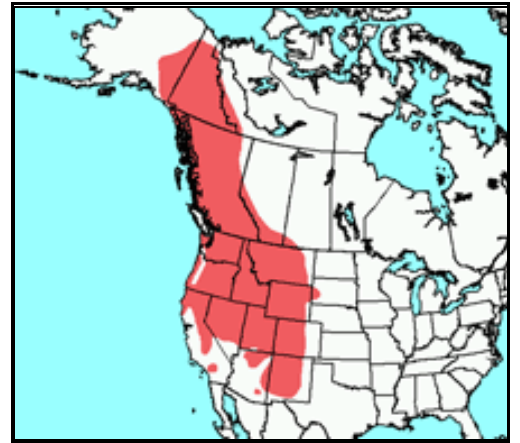
Males are larger than females.

Length:

Range: 155–202 mm

Weight:

Range: 36–59 g



FIELD NOTES

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Mogollon Vole

(Microtus mogollonensis)

ORDER: Rodentia
FAMILY: Muridae

Conservation Status: Both the parent species and the subspecies *M. mogollonensis hualpaiensis*, the Hualapai Vole, are Vulnerable.

Mogollon Voles live chiefly in coniferous forests at higher elevations. The greener, wetter mountaintops they inhabit are isolated from one another by dryer zones that prevent the Voles from leaving one area and occupying another. This isolates the Vole populations from each other, and there is some diversity of characteristics from one population to another. Mogollon Voles eat the green leaves and stems of plants. The 35 mm–wide runways they make to link feeding areas and underground burrow entrances are good indicators of their presence, as these are kept clear of vegetation and debris. Mammals carry parasites to one degree or another; the Mogollon Vole appears to carry fewer worm parasites in its digestive tract than other voles. The environment in the Southwest—even on their relatively moist mountaintops—may be too dry for some species of parasitic worms, because part of a parasite's life cycle occurs outside the Vole; or it may be that some parasites have become extinct here because the population of Voles is so small.

Also known as:
Mexican Vole

Sexual Dimorphism:
None

Length:
Average: 134 mm
Range: 123–144 mm

Weight:
Average: 28 g
Range: 18–42 g



Credit: painting by Todd Zalewski from Kays and Wilson's Mammals of North America, © Princeton University Press (2002)



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Montane Vole
(*Microtus montanus*)

ORDER: Rodentia
FAMILY: Muridae

Conservation Status: Two subspecies (*M. montanus fucosus*, Pahrnaga Valley Montane Vole, and *M. montanus nevadensis*, Ash Meadows Montane Vole) are Vulnerable; the Arizona Montane Vole, *M. montanus arizonensis*, and the Virgin River Montane Vole, *M. montanus rivularis*, are Near Threatened.

Montane Voles are found in a variety of habitats, including woods and meadows. They are even found above timberline. Estimates of population densities are rather extreme. One report cited 185 Voles per hectare. Another study, of a population explosion in the Klamath River basin in 1957–1958, counted 1,200–1,600 per hectare. Owls, hawks, and falcons feed heavily on these numerous mammals, as do some mammals, among them coyotes and weasels. The Voles carry two diseases that can also infect humans, tularemia and giardia, and are used for laboratory studies of diseases, especially African trypanosomiasis.

Also known as:
Mountain Vole

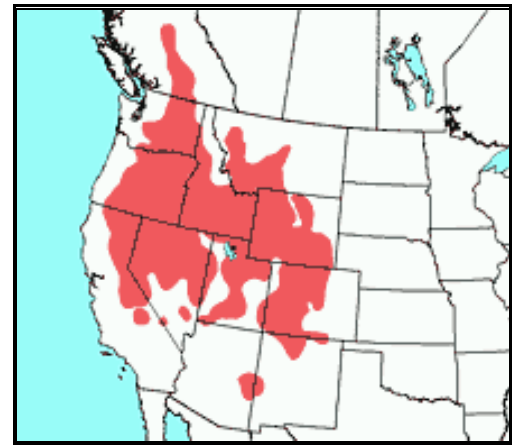
Sexual Dimorphism:
Males may be 30% heavier than females in some populations.

Length:
Range: 140–220 mm

Weight:
Range: 18–90 g



Credit: painting by Todd Zalewski from Kays and Wilson's *Mammals of North America*, © Princeton University Press (2002)



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Prairie Vole
(Microtus ochrogaster)

ORDER: Rodentia
FAMILY: Muridae

The Prairie Vole builds well-defined runways on and below ground. Surface runways are often well worn and bare of vegetation; sometimes they are covered with a layer of grass clippings. The abundance of these runways is a good index of the size of the Vole's local population. Unlike most voles, and in fact, most mammals, Prairie Voles appear to be monogamous: male-female breeding pairs stay together. Offspring are born hairless yet develop rapidly, acquiring a brown furry coat by day two, crawling three days later, and eating solid food by day 12. They are weaned at 2-3 weeks, and fully grown by two months.

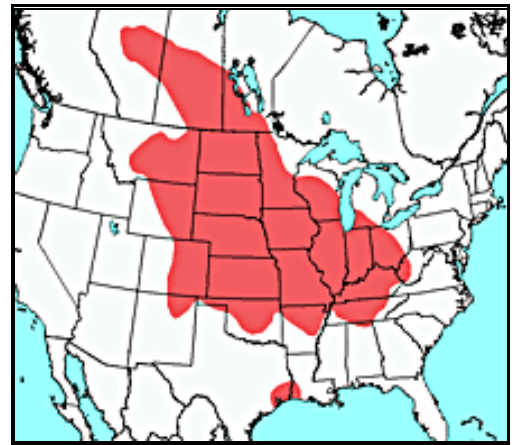
Sexual Dimorphism:
None

Length:
Range: 130-172 mm

Weight:
Range: 37-48 g



Credit: painting by Todd Zalewski from Kays and Wilson's Mammals of North America, © Princeton University Press (2002)



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Meadow Vole
(*Microtus pennsylvanicus*)

ORDER: Rodentia
 FAMILY: Muridae

Conservation Status: The Florida saltmarsh vole (*M. pennsylvanicus dukecampbelli*) is Vulnerable; four subspecies are Near Threatened (*M. pennsylvanicus admiraltiae*, Admiralty Island meadow vole; *M. pennsylvanicus kincaidi*, Potholes meadow vole; *M. pennsylvanicus provectus*, Block Island meadow vole; and *M. pennsylvanicus shattucki*, Penobscot meadow vole).

Meadow Voles have a remarkable reproductive output: they are the world's most prolific mammals. Females can breed when they are a month old and produce litters of 3–10 pups every three weeks for the rest of their lives. A captive female produced 17 litters in one year. They are known for their boom–bust population cycles. Population density can vary from several Voles to several hundred per hectare over a 2–5 year period. Biologists have been studying – and trying to explain – these boom–bust cycles for more than half a century. At peak density, Meadow Voles are capable of real damage to farms and orchards. They are also a very important food source for many predators.

Also known as:
 Meadow Mouse, Field Mouse

Sexual Dimorphism:
 None

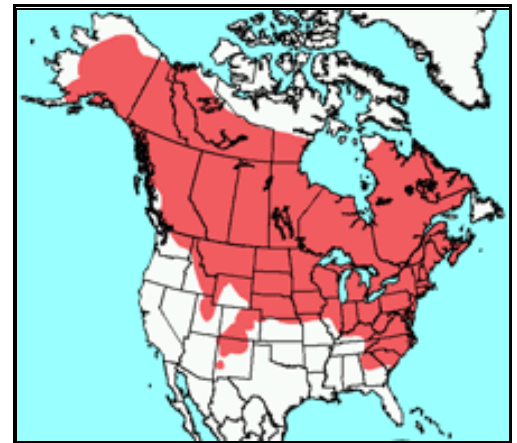
Length:
 Average: 167 mm
 Range: 140–195 mm

Weight:
 Range: 33–65 g



Microtus pennsylvanicus – adult (right), juvenile (left)

Credit: painting by Todd Zalewski from Kays and Wilson's *Mammals of North America*, © Princeton University Press (2002)



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Muskrat

(*Ondatra zibethicus*)

ORDER: Rodentia

FAMILY: Muridae

Muskrats, so-called for their odor, which is especially evident during the breeding season, are highly successful semi-aquatic rodents. They occur in both brackish and freshwater lakes, ponds, streams, rivers, and marshes throughout much of North America, except in parts of the South where tidal fluctuation, periodic flooding, or drought limit their distribution. Muskrats have a variety of aquatic adaptations, including a rudder-like tail that is flattened side-to-side, partially webbed hind feet, and fur that traps air for insulation and buoyancy. Because their fur has commercial importance, they were taken to Japan, South America, Scandinavia, and Russia, and there are now feral populations in some places where they were introduced.

Also known as:

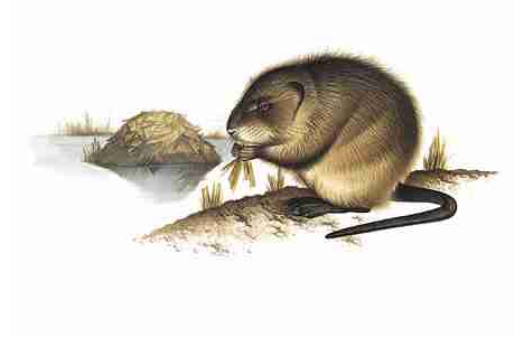
Mudcat, Muskbeaver, Musquash

Length:

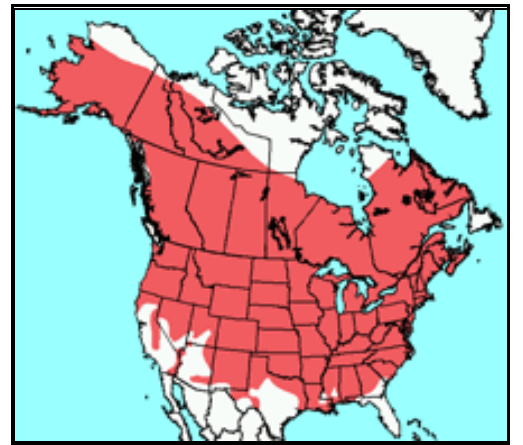
Range: 410–620 mm

Weight:

Range: 680–1,800 g



Credit: painting by Todd Zalewski from Kays and Wilson's Mammals of North America, © Princeton University Press (2002)



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Western Heather Vole
(Phenacomys intermedius)

ORDER: Rodentia
FAMILY: Muridae

Western Heather Voles live in mountains, near or above the timberline. Where high-elevation forests have been clear-cut, they have been seen at lower elevations. Like Eastern Heather Voles, they feed on a variety of vegetation, including leaves, seeds, berries, and the bark of willow and other shrubs. They build summer nests underground and winter nests at ground level, next to a bush, rock, or stump. The nests are made of twigs, leaves, and grass. As many as three litters of 2-9 young are produced a year. Males are aggressive toward each other during the mating season, but several Voles may nest together for warmth in winter. These Voles do not do well in captivity (if they survive trapping), which makes it hard to study them.



Credit: painting by Todd Zalewski from Kays and Wilson's Mammals of North America, © Princeton University Press (2002)

Sexual Dimorphism:

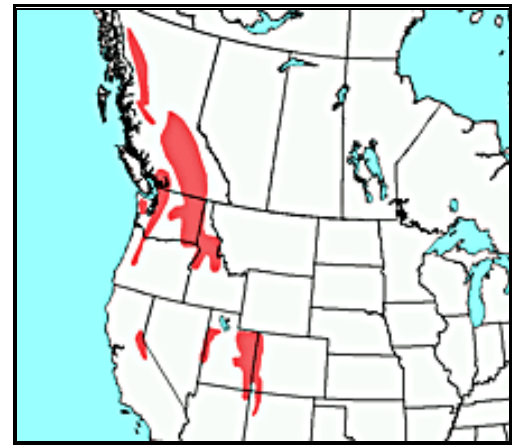
None

Length:

Average: 138 mm
Range: 122-155 mm

Weight:

Range: 30-40 g



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