

Wildlife Diversity Notebook: Meadow Vole

Common Name:

Meadow vole (field mouse)

Scientific Name:

Microtus pennsylvanicus

West Virginia Status: Populations are stable; meadow voles are abundant in the state.

Description: The meadow vole is a stocky, mouse-like creature in the rodent family. Their color is variable, from yellowish- or reddish-brown to blackish-brown on their back, with a gray belly. The body is 3 to 5 inches long, with a 1- to 2-inch-long tail. The short tail aids in distinguishing them from mice. Their feet are dark. An adult weighs 1 to 2 ounces. Long, soft fur hides their small ears. Like other rodents, they have two pairs of incisors in the middle of the upper and lower jaw which continue growing throughout their life.

Habitat: Meadow voles thrive in lush fields, moist meadows and open woodlands thick with grasses and sedges. The thick grass provides protection from its numerous predators.

Diet: They feed on grasses, sedges, seeds (especially pine cone), flowers, leaves, and roots of shrubs and small trees, bulbs. They may eat the bark of small trees, especially in the winter. They eat almost their own body weight each day. Their feeding habits may destroy hayfields, gardens and fruit trees. They may occasionally eat insects.



The red-tailed hawk is one of the meadow vole's many predators.



Joe Kosacki/PGC Photo

Meadow Vole

Range: Across Canada and much of Alaska, northern United States, dipping as far south as Georgia and South Carolina in the eastern United States. Meadow voles tend to have a larger body size in colder climates.

Life History: Meadow voles are active year-round, often traveling under a mantle of snow in the winter when they are more active during the day. In summer, they become more nocturnal. As a measure of protection, they are less active during a full moon. When alarmed, voles stamp their hind feet like rabbits. They are fast afoot, reaching speeds of five miles per hour, and can also swim well.

Voles are prolific breeders which compensates for their short average life span of less than one year. After a short gestation period of 21 days, the female gives birth to 4 to 7 young. A vole may have 5 to 8 litters per year. They are sexually mature after one month. They nest in a depression on the ground under a thick cover of grass or in an underground burrow which they dig. As long as there is sufficient snow for protection, they build their spherical grass nest on the surface. The grass nest is about 5 to 6 inches in diameter. They build a network of runways, each about the width of a garden hose, out from the nest. The population density can sometimes reach several hundred voles per acre.

Meadow voles, a foundation of the food chain, fall prey to many animals. Predators include hawks, owls, crows, herons, foxes, raccoons, skunks, shrews, bullfrogs, snapping turtles, and even predatory fish such as bass and musky.