## **BEST PRACTICES**



## Townsend's Vole (Microtus [small ear] townsendii)

Voles live in small colonies of a few to several hundred individuals. As with most rodents, voles are productive breeders and can have many broods each year. Voles can produce 3 to 12 litters per year, though the average is 3 to 5. Litter sizes average 3 to 6 young. Each litter of young is born and raised in a grassy nest found below or above ground. Young are ready to leave the nest within 15–17 days and are able to begin reproduction within 35–80 days.

Voles are a significant part of the food web. Many predators, such as hawks, owls, weasels, foxes, coyotes, minks, badgers, skunks, bobcats and snakes, rely upon voles as an essential food source.

In the human landscape, voles are known for the damage they may cause to our gardens. Backyards and gardens that share borders with forests, fields and grasslands may experience damage from vole population pressures. Damage is usually identified easily by the tiny tooth-scars on woody plants and bulbs. Bulbs and roots are often completely eaten over winter, and trees can be completely girdled, leading to loss of the tree. During the spring, feeding moves to the new growth as herbaceous plants sprout and leaf out.

## How can one small furry being wreak so much havoc?

Voles and their early offspring can have several litters over the summer, so populations can fluctuate from just a few to several hundred per acre. Population densities can be as high as 800 per hectare (1 hectare = 2.47 acres or 10,000 square meters). According to Washington State University Extension, one pregnant female births an average of five female offspring in the first litter (28 day gestation). Those young females in turn can produce an additional 25 females and so on. The population can go from the "original" five offspring to 125, then 625 and up to 3,125 females within 4.6 month if there is no mortality! This results in periodic population explosions, which commonly occur every 3–5 years. When this happens, the



**Description:** One of the largest and most abundant voles in North America. Voles are rodents and are generally identified by their small front feet and ears, blunt noses and relatively short tails. The Townsend's vole has dark-brownish fur and small rounded ears that are large enough to project above the fur. They are neither mice nor moles.

**Range**: British Columbia to California. Can be found at sea level to approximately 1800 feet.

**Size**: Length: 5–8 in. (169–225mm) Weight: 1.6–2.9 oz. (47–83g)

**Habitat**: The Townsend's vole occupies a variety of habitats: salt and freshwater marshes, alpine and subalpine meadows and grasslands. They construct extensive underground burrow systems and runways through grass and other vegetation on the surface of the ground. Tunnels provide protection from predators and from the weather. Townsend's voles are good swimmers and burrow entrances may be found below the water surface.

**Diet**: Various kinds of green vegetation in summer such as grasses, sedges, forbs and bulbs. Grains, seeds, fungi, roots and bark during winter.



It is the mission of Stream Team to protect and enhance water resources and associated habitats and wildlife in Thurston County through citizen action and education. Stream Team is funded and jointly managed by the stormwater utilities of the Cities of Lacey, Olympia and Tumwater and Thurston County. www.streamteam.info population explosion is usually followed by a population crash as the habitat becomes unable to accommodate such large populations.

## Managing for voles around your home:

Voles are a natural part of our ecosystem, and extermination is both impractical and harmful since they provide a large portion of food for many predators. Tall grass is one of the primary food sources and hiding places for voles. Keeping your grass mowed helps to reduce vole occupation and damage. Installing barriers around gardens helps as well. An exclusion fence built 12 inches high and buried 6–10 inches deep is recommended. Applying 1–2 inches of mulch or crushed rock around the perimeters of gardens and trees will also provide barriers that may help reduce the migration of voles. Avoid applying thick layers of organic mulch or weed cloth, which may encourage tunneling.

For more information, visit: http://gardening.wsu.edu/voles-in-the-garden/

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