Moles, Voles or Shrews?

Gardeners often see small, mouse-like creatures running around in the landscape, possibly entering or exiting holes, sometimes burrowing under mulch, or occasionally leaving surface runways in the soil under snow or mulch. These creatures are often generically referred to as moles, but they may actually be moles, voles, or shrews. It is important to know which kind of creature you have, since each has different modes of activity and different control procedures.

Moles are 5 to 7 inch long, solitary animals that rarely leave their tunnels unless by accident. Moles create extensive burrows in search of their insect prey: earthworms, grubs and beetles. Moles are considered beneficial to the landscape because they cultivate and aerate the soil while eating undesirable grubs and insects. Gardeners may object to unsightly molehills and shallow tunnels that create irregularities in the lawn surface. These tunnels may cause slight damage to plants by drying the roots, but it is more likely that plant damage is caused by a vole using the mole’s tunnels. Moles may be controlled with harpoon traps or mole repellents. There are also baits available that mimic the look and smell of grubs or earthworms. Moles will not eat grain-based bait.

Shrews are smaller than moles at 4 to 5 inches long. Shrews, like moles, are strictly insectivorous and eat earthworms, grubs and other nuisance insects. Unlike moles, shrews may occasionally be seen running above ground in search of food. They often use old mole, vole or chipmunk tunnels. They are also considered beneficial to the landscape, and should not be a concern to gardeners. If control is desired, use snap-type mousetraps baited with ham, bacon, raw beef, peanut butter or chocolate.

Mole, about life size.
Note the broad front feet.
Voles, also called meadow mice, are more troublesome. They are herbivores, feeding on grasses, bulbs, tubers, and herbaceous plants. During the winter they may eat tree bark and roots, particularly on fruit trees. If the bark is gnawed around the entire circumference of the tree, the tree may be girdled and die. Voles are slightly larger than moles, reaching lengths of 5 to 8 inches at maturity. They also construct tunnels, or may use old mole tunnels. They produce characteristic surface runways between burrow openings, which are especially noticeable after snowmelt or after removing a layer of mulch. Voles, unlike moles or shrews, are more social and may be present in large numbers. Control voles by trapping with snap-type mousetraps baited with a peanut butter / oatmeal mixture, or with apple slices. A small garden will require at least a dozen traps. Continue setting traps in a particular area until no more voles are caught, then move the trap to a new location 15-20 feet away. Destroy old runways or tunnels to prevent new voles from moving right in. Poisons are not recommended since natural predators, dogs or cats may eat poisoned voles. Zinc phosphide baits are less troublesome in this respect. Place poisoned bait in the tunnels or runways every other day for at least three applications to ensure that the entire population has been dosed.