

Ground Beetle

By Jason Miller
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Despite their fierce appearance, the ground beetle is every gardener's friend.

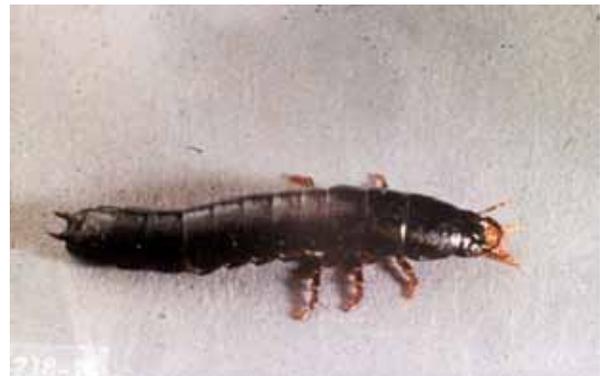
While working in your garden have you ever turned over a rock or raked up some wet leaves and been startled to see a large, black beetle scurry away faster than a speeding bullet? That “super insect” is a ground beetle—one of the good guys in your garden, however ferocious you may think they look.

Everything about the ground beetle (family *Carabidae*) is large, from its powerful jaws to its compound eyes. Ground beetles have a shiny blue-black, purple, or dark metallic green body with long legs and long antennae on the head.

The ground beetle goes by ferocious-sounding names, too—caterpillar hunter (*Calosoma scrutator*) or snail eater (*Scaphinotus marginatus*)—and it's a close relative of the tiger beetle (*Cicindela Formosa*). As these names suggest, the ground beetle is a predator of many other insects. A random hunter, the ground beetle roams at night and eats any suitable life form it encounters, including cutworm larvae, and slugs and snails, from their egg through juvenile stages. Ground beetles are not discriminating feeders; if they happen upon an occasional earthworm, they devour it as well. By day they burrow under rocks, leaf mold, or other dark, damp places, and come out to hunt again after dark.



One of our unknown, smaller species of ground beetle adults, measuring about one quarter of an inch in length. Photo by Arthur Antonelli.



A ground beetle larva.
Ken Gray. Image Courtesy of Oregon State University.

The adults deposit their eggs one at a time under garden debris in the spring. The larvae grow for a year before they pupate and emerge as adults. They live in the soil and are seldom seen, but they will eat almost any insect or insect egg they find. Since it is a growing youngster, the larva needs twice as much food as the adult to sustain it. The larva does not look like the adult beetle. It has short legs, an elongated body and powerful chewing mouth parts. Like the adult, the larva is a nocturnal hunter.

Not all ground beetles are super sized. They range from a quarter of an inch long to more than an inch long. There are thousands of different species of ground beetles found in the U.S. and Canada, and, given their efforts to control garden pests like slugs and snails, they're certainly one of the creatures you'll want to encourage in your garden. You'll be wise to familiarize yourself with the ground beetle and take steps to protect it from insecticides and unnecessary chemicals.



Because of its fondness for slugs and snails this ground beetle, of the genus *Scaphinotus*, is sometimes referred to as the snail-eater.

Photo by Arthur Antonelli.



Adult predacious ground beetle in the genus *Pterostichus*. It measures a little over a half-inch long. Photo by Arthur Antonelli.

The WSU Master Gardener insect collection, which is housed at the WSU Skagit County Extension office, has samples of a dozen or more ground beetle species from this area. Ask to see them the next time you are in the office. Also ask for the bulletin number PNW 343, which includes a picture of an adult ground beetle, plus many other beneficial insects you should know about.



Adult ground beetle in the genus *Scarites*. Photo ©Bruce Marlin, www.cirrusimage.com.