

Black Millipede

Polydesmida spp.



- Rounded body
- 26–80 body segments
- Up to 90 mm length

Millipedes are long slender creatures with many legs for locomotion—two pairs of legs per body segment. They also have short antennae usually with seven segments each, and they often have compound eyes. They do not bite people. Actually they don't eat meat; they are vegetarians, and prefer decaying vegetation to fresh. They play a key part in recycling dead and dying plants into reusable components in the soil.

Although they don't bite, millipedes have ways to defend themselves. When threatened they will curl into as much of a ball as they can, tuck in their legs, and use their hard exoskeleton as a shield. Some species give off a foul-smelling odor through pores along the sides of their bodies. Scientists have analyzed this and have found that in some species it contains hydrogen cyanide. In our local species, the compound can leave a purple stain on your skin.

Orange Millipede

Polydesmida spp.

This species of *Polydesmida* have somewhat flattened bodies. Their eyes may be very small, and sometimes they may not have eyes at all. They have scent glands, so if you pick one up you may smell an unpleasant odor.



- Flattened body
- 18–22 body segments
- Up to 20 mm length



BODY LENGTH: 15–20mm

European Earwig

Forficula auricularia

Even though California has native earwig species, the most commonly seen earwigs are a nonnative species from Europe. The name earwig comes from the old wives' tale that earwigs burrow into the brains of humans through the ear to lay their eggs. This is not true. There is no evidence that they transmit disease or otherwise harm humans or any other animals.

Another name for the earwig is 'pincher bug' due to the forceps-like structure (cerci) at the end of their abdomen. The cerci are usually more robust and curved in males. They are used for a variety of functions, including holding prey, defense, and copulation.

How to Explore Under a Log

Here are some important things to remember when you begin your exploration.

1. Always roll the log towards you so that the log is between you and the creatures underneath. If there is anything dangerous, the log can act as a protective barrier.
2. Put the log back exactly as you found it. The log is someone's home. If you leave the residents unprotected, they will be vulnerable to predation and dehydration. And remember to put the log back carefully, so as not to squish the residents.

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Who's Under that Log?

If you sit on a log to rest, and then shift it slightly, or even roll it over a bit, you will uncover a tiny environment of busy invertebrates working at decomposing the wood and debris underneath. This is a vital step in the process of turning dead plant material into renewed and reusable soil for the next generation of plant life.



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BODY LENGTH: 20–25mm

Jerusalem Cricket/Potato Bug

Stenocephalus spp.

These large, robust and humpbacked insects are members of the Gryllacrididae family of crickets. Unlike their noisy 'cousins,' they lack any sound producing structures. They are nocturnal and prefer to live under logs, stones, or loose soil.

Jerusalem crickets eat plant roots, tubers, and decaying vegetation. They are plant eaters, but they have a formidable set of jaws that can deliver a strong bite—so be very careful if you try to pick one up!

Ant

- Elbowed antennae
- Constricted waist
- Front wings large, hind wings small
- Wings held above body at rest



Harvester Ant

Myrmecinae spp.

Ants, members of the Hymenoptera family, live in a complex social system with each colony usually having three distinct castes: queens, males, and workers. The workers are the smallest and most numerous members of the colony. Ant colonies can be small, with only a dozen or so individuals, or they can number in the hundreds or thousands.



Termite

- Straight or curved antennae
- Wide waist, no constriction
- Front and hind wings same size
- Wings folded over abdomen at rest

Pacific Coast Termite

Zooteropsis angusticollis



Worker

Soldier

Termites are members of the Isoptera family. While superficially resembling ants, and having a similar social structure, they lead very different lives. Subsisting on wood, as termites do, is difficult. To aid in digestion, termites have protozoa living in their digestive tracts to help break down the cellulose in the wood.

Although termites are considered pests due to the damage they do to structures, they are an integral and critical part of the environment, recycling wood back into the soil.

Pill Bug

Armadillidium vulgare

BODY LENGTH: 6–15mm

Pill bugs are members of the class of animals called Crustaceans, which includes lobsters, but they are specialized to live on land. They have gill-like lungs, and need lots of moisture in order to breathe.

Pill bugs are often called roly-polys because of their method of defense. When threatened they roll themselves into a ball leaving only their hard exoskeleton exposed and protecting their soft belly and legs.

They are great recyclers, helping to break down the dead plant matter, aerating and fertilizing the soil.



Sow Bug

Oniscus asellus

BODY LENGTH: 7–12mm

Sow bugs are close relatives of pill bugs. Both are generally referred to as woodlice due to their habit of frequenting damp dark places, such as under logs.

Sow bugs look very much like the roly-polys except they can't roll up. Another way that you can tell the difference is that sow bugs have two little 'tails' at the back end, and pill bugs do not.



Stone Centipede

BODY LENGTH: 4–45mm

Lithobionorpha spp.

Centipedes are distinguished by having just one pair of legs per body segment and a rather flattened body. Their antennae usually have 18 segments, and they may or may not have eyes.

The appendages of their first body segment behind their heads are claw-like and function as poison jaws. Centipedes are predators, eating spiders, insects, and other small creatures, utilizing those poison jaws to paralyze their prey.

Two common types found in our area are Stone Centipedes (*Lithobionorpha*) and Soil Centipedes (*Geobionorpha*). Stone Centipedes are short-legged with 15 pairs of legs, have eyes with many facets and prefer to live under stones, logs, and bark. Soil Centipedes are slender, have 29 or more pairs of legs, have large poisonous jaws, are whitish-yellow in color, have no eyes, and live in soil, debris, and rotten logs.

Soil Centipede

Geobionorpha spp.



BODY LENGTH: 30–300mm

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