

Rolling Along Together

By Julie Silva

I am rolling tighter and tighter with each touch of her little finger. My objective is to find myself back to the moist soil under the board that is my home. The little girl is mesmerized with my small ball appearance and she is making me nervous, tucking my seven sets of legs into my roly-poly protection mode.



Armadillidium vulgare, also referred to as roly-poly, pill bug, doodle bug, woodlice, and sow bug.

Everyone seems to be attracted to my appearance of being a ball. Looking like a ball has given me many names; roly-poly, pill bugs, doodle bugs, woodlice, and sow bugs. My real name is *Armadillidium vulgare* and to clarify things I am not a bug. I am a crustacean out of water. My relatives include lobsters, shrimp, and crayfish, which in my book are all good company. I have an exoskeleton with plates like the lobster.

I like to talk about my journey to the United States. Many folks think I came from the Mediterranean region of Europe. The cold, especially under 20 degrees F, will not be a good habitat for me and my relatives. My ancestors came over the seas on trees cut for lumber.

My mom produces one to three batches of babies annually. She carries her eggs with her in a special pouch called a marsupium covered with overlapping thoracic plates. After the eggs are hatched the babies are able to care for and feed themselves relatively quickly.

The plates must change as we grow. Our exoskeleton sheds by the back-half splitting and falling away. Within a few days the front half does the same. This molting process gives the juvenile roly-poly a divided color with gray on one end and pink on the other. If you find a roly-poly that is bright blue or purple, it is sick with a viral infection. Roly-poly bugs do have hemocyanin in their blood giving their blood a blue color.

I do search out cool, damp locations to live and work. I do work! I am a biological indicator. If the environment changes, I will be one of the first to show sensitivity. I am a decomposer; eating carrion, fungi, decaying vegetation, all types of organic materials and, if there is nothing else, live seedlings. We increase natural decomposition by processing it through our bodies.

There are two very important jobs we do. One, we remove heavy metals from soils. We can crystallize copper, zinc, lead, arsenic, and cadmium in our midgut. Contaminated soil that others keep away from, I can survive in and change the composition. The second most important job was discovered by Professor Lester Ehler from UC Davis: roly-poly bugs eat the eggs of stink bugs, the marauders of the garden. Roly-poly bugs are the new beneficial for natural insect control and we are proud of it.

Even with all these accolades there is no reason to fear me. After all I roll up into a ball to hide from you. I do not sting or bite like many insects. I might use odor for defense, but you probably won't smell it. I do have a social identity among my friends, we communicate by tapping antennas together. We all hang out together in moist places under boards, fallen limbs, and rocks. When there is a mass meeting and food becomes scarce, we will fight.

Roly-poly bugs are great neighbors in your garden. We will speed your compost pile along, gobble up stink bug eggs, we do not bite, sting, or transmit diseases, and we break down heavy metals in your soils. So, if you find a little girl rolling me along please remember I don't do well in sunlight and should go back to my cool, moist home. I have work to do there to protect the world!

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