



## Isopods: Roly Polies and....

Roly polies are also known as as doodle bugs or [wood shrimp](#), pillbugs, woodlice, tiggie-hogs, parson-pigs, sow bugs and their scientific name, Armadillidium

vulgare. The varieties that can't roll up and are usually called woodlice or sowbugs.



Isopods are crustaceans, not insects, and related to lobsters, crabs and shrimps. They're the only crustaceans that have adapted to living completely on land.

**They are iso-pods (meaning same-foot) and have seven pairs of legs.**

The legs are all similar in size and shape. Roly-poly bugs also have three main body parts – head, thorax and abdomen – as well as eyes, a pair of prominent antennae and uropods (tail). As terrestrial (land) creatures related to marine animals, they have white overlapping gills and need moisture to survive but cannot live submerged in water. They molt, half of their body at a time, up to a dozen times in their lifetime or 3-5 years.



**The female carries her eggs in a brood pouch.** Female roly-poly bugs may have one to three broods of young per year. When the eggs are formed, the female places them into a brood pouch where she may carry up to 50 eggs.



**Roly-poly bugs are decomposers.** They digest waste like scat as well as decaying matter from dead plants and animals, and then return the essential nutrients back into the soil. Because roly-polies are sensitive to changes in the environment, they also serve as biological indicators for the health of ecosystems.

**They 'eat' metals.** Pill bugs [can take in heavy metals](#) such as copper, zinc and lead, and they crystallize them in their bodies. They are able to remove heavy metal ions from contaminated soil and can thrive in places where other species can't.

**They compost soil.** Pill bugs feast on dead, organic matter, thanks to the fungus in their guts. This helps speed up decomposition. Then they return organic matter back to the soil so it can be digested even more by fungi and bacteria.

**Pill bugs slow climate change.** As the atmosphere gets warmer, there's more fungus activity in the earth, which means more carbon dioxide is released into the atmosphere. But according to a [2015 study](#), when pill bugs are around, they eat more fungus, putting a damper on the fungal activity and playing a small role in slowing climate change.