

# Subterranean Submarines

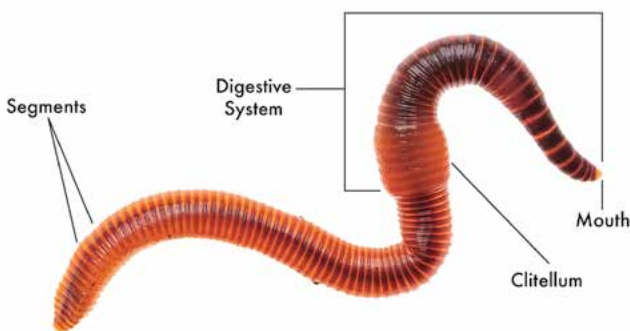
## *The Wonder of Worms*

After a long, cold winter, there is something rejuvenating and comforting about turning over our garden. With each shovelful, we smell the moist, damp earth rise up and we rejoice in the promise of a new season of growth. And, although we take them for granted, we frequently come across those wriggling pink and brown tubes of life. Worms.

There can be over 1 million of them in one acre of land. Their secretions, rich in nitrogen, help enrich the earth and as they burrow, they mix the subsoil with the topsoil bringing oxygen and water to the roots of plants and trees. While worms don't have eyes, they can sense light and instinctively move towards darkness. In fact, a worm left exposed to light for too long will become paralyzed. And did you know:

- Worms are hermaphrodites meaning that they have both male and female organs.
- How to tell which end is which? To tell a worm's head from its tail, look for a raised band called the clitellum. The head and mouth are located closest to this region (this is where worm eggs are formed). And despite what you may have heard, if an earthworm is cut in two, both parts will not survive. The bit that is closest to the head may grow back if the worm is severed below its clitellum. Please leave your worms in one piece!
- Egg cases are small and yellow in colour and when they hatch, out pop tiny worms.
- Worms move like an accordion, one body section at a time. Each section has a band of circular muscles and a pair of setae or bristle-like structures which help to grab onto the soil as they wriggle through the earth.
- The biggest worm in the world, from Australia, is called a Gippsland Earthworm and it can grow over 12 feet long!
- Worms eat decaying vegetation. While they have tiny mouths, worms don't have teeth. Whatever small bits of food they swallow moves down their intestine and through a gizzard and eventually passes out as worm poo, or castings which is very healthy for your garden.

### Exterior Anatomy



- Earthworms are not native to northern parts of the United States and Canada. They were brought over intentionally in the earthen ballast of ships by settlers to improve soil quality.

Worm fiddling. Also called worm charming or worm grunting, you can coax worms up to the surface by making yourself some worm fiddlesticks. There are competitions throughout the United States and in Canada to find the best worm charmer. Maybe it is you? Want to find out?

What to do: You'll need two hardwood dowels – each  $\frac{3}{4}$  of an inch thick or so, one 4 feet long and the other 2 feet long. Use a saw to cut notches in the longer piece, every few inches or so. Find a moist wooded location. Place one end of the longer dowel with ridges into the ground. Hold the dowel firmly in the upright position. With the other stick, rub back and forth vigorously just like a fiddle player playing a jig. You should hear a distinctive rasping noise. Keep at it for at least 5 to 10 minutes. The vibrations attract worms to the surface. Some scientists believe that the sounds mimic rainfall and the earthworms rise to avoid drowning. Can you fiddle up some worms?

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