

Tilth Alliance Master Composter/Sustainability Steward Tip Sheet

The Master Composter/Sustainability Steward program is managed by Tilth Alliance and sponsored by Seattle Public Utilities.

Eisenia fetida: Red Wiggler Worm

There are over seven thousand species of earthworms; however, one species in particular is well suited for indoor composting: *Eisenia fetida*.

Eisenia fetida (also called red wiggler worm, tiger worm, manure worm, brandling worm, and a range of other names) are an important macrorganism decomposer in both indoor and outdoor composting systems.

Red Wiggler Worm Basics

Red wiggler worms live in the upper layer of soil where they feed on microorganisms and decaying organic matter.

However, unlike other species of earthworms, *Eisenia fetida* don't tunnel deeply or make permanent burrows. They reproduce quickly, thrive in habitats with high organic matter, can tolerate a wide range of temperatures and moisture conditions, and can live close to one another. An indoor worm bin mimics all of these natural conditions, which makes *Eisenia fetida* ideal for indoor composting.

Fun Worm Facts

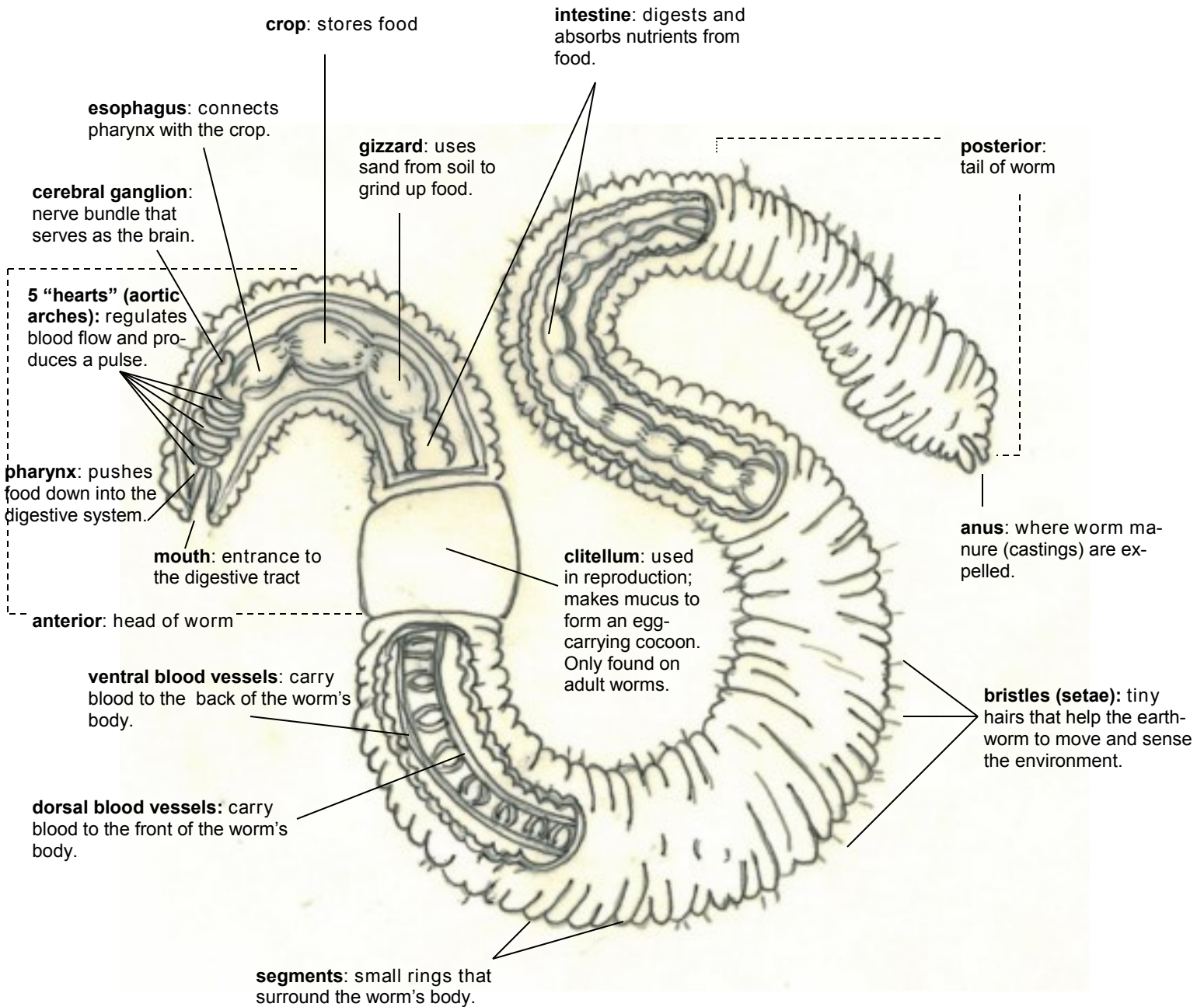
- Worms do not have eyes; they have cells in the front part of their bodies that can detect light.
- Worms do not have teeth; they grind up food by using the grit in their gizzard.
- Worms living in an indoor worm bin (*Eisenia fetida*) can eat half their body weight in food scraps every day!
- Worms have both male and female reproductive organs but still need another worm to reproduce.
- *Eisenia fetida* have 5 "heart-like" organs called aortic arches.
- *Eisenia fetida* start reproducing when they are about 2 months old.
- One mature worm can produce about 100 worms in a year.
- Worms live up to one year.
- Worms "breathe" through their skin, so it is very important to keep them and their environment moist, but not sopping wet as they can drown if it's too wet.
- If you hold a worm long enough, you will likely see a yellow secretion on your hand, called coelomic luid.
- Coelomic luid is thought to be a defense mechanism against predators as the liquid can smell bad. This bad smell is thought to be the basis of their name *fetida* or *foetida* which is the Latin scientific term used for many foul-smelling species.
- Coelomic luid is also a way for worms to remoisten their bodies when conditions are dry.

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color a wiggly worm!

Color in the *Eisenia fetida* (red worm) image below to help you to identify the various parts of the worm.



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