

NATURE SPRING 1994 DETECTIVES

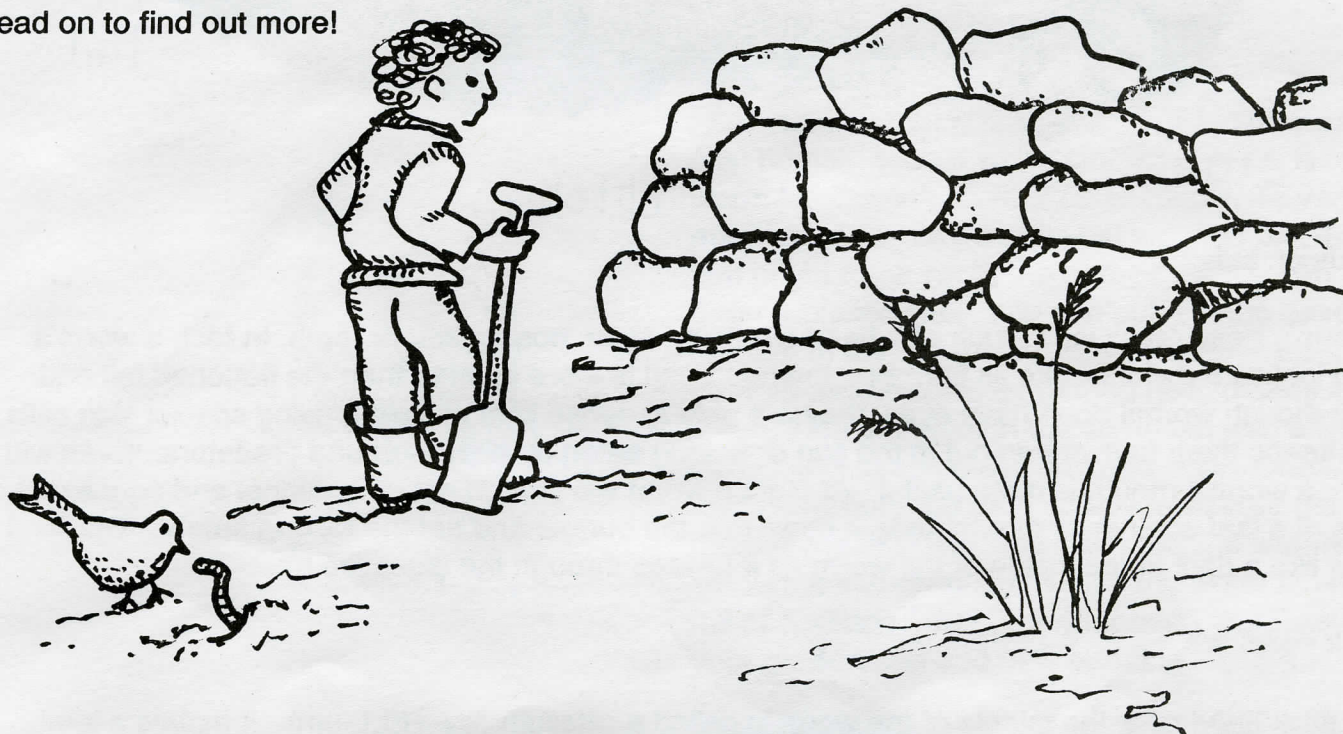
WILD ABOUT WORMS

Turn over a shovelful of warm, moist, dirt and most likely you will find a very important animal. Can you guess what it is? Here are some clues.

This animal is long and skinny and wiggly. Its body is made up of round segments like LifeSavers. It feels cool and a little wet. It has no eyes, no ears, and no nose! It lives in a burrow and slithers through the dirt eating whatever is in its path.

Have you guessed what it is? An earthworm, of course! Why is the earthworm so important? Worms keep the soil loose and full of good things for plants to eat. And they are food for other animals, too. If people would grow earthworms in their homes, in wormbins, and feed them all their kitchen scraps, there would be less garbage in the world.

Read on to find out more!



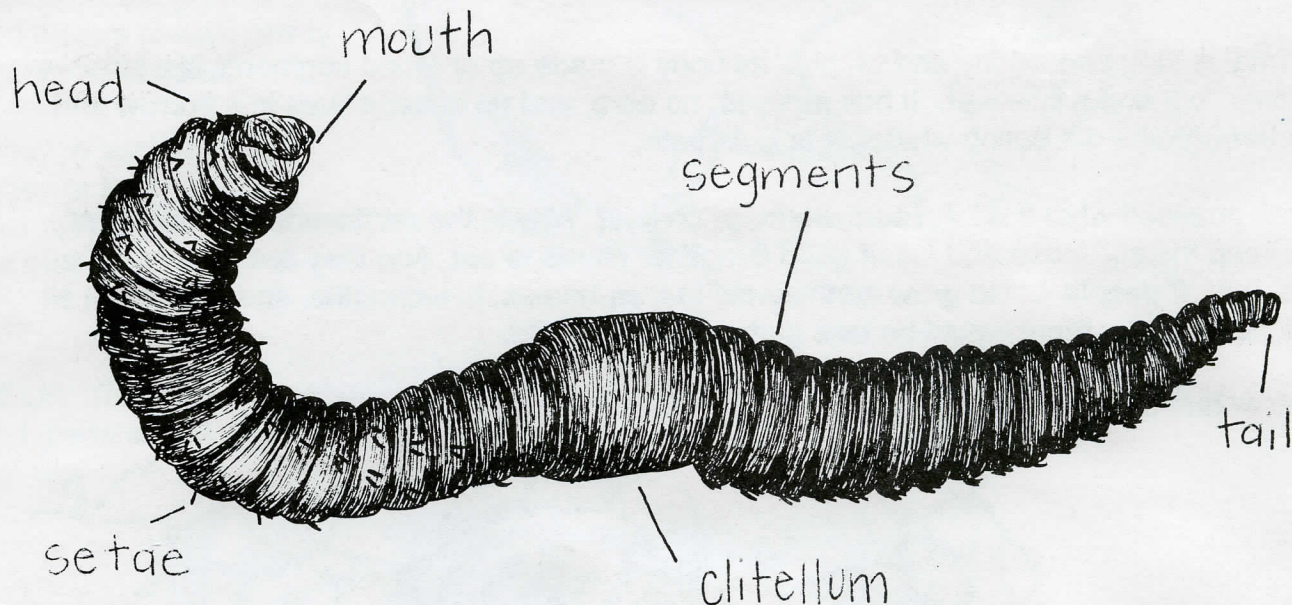
WORMY PARTS

Getting Air

Worms are slimy! And for good reason! It helps them breathe through their skin. Earthworms have no lungs or gills to breathe with. When they are crawling through their burrows, their skin is in constant contact with the air between the particles of soil. When it rains, these air spaces fill up with water so the worms must come to the surface to get air or they will drown. Worms need to be moist in order for oxygen to pass through their skin and reach the blood vessels inside of their bodies.

How do they move?

Their slippery bodies are made up of rings or segments. Using the muscles inside of each segment, worms are able to twist and turn through the soil. On each ring, there are four pairs of tiny hairs called setae (SET-ee). Although these bristly hairs are very small, they are a big help to a worm. They act like little arms while the worm is burrowing through the earth and they help to anchor a worm in the ground if a predator is trying to tug it out.



Heads or tails?

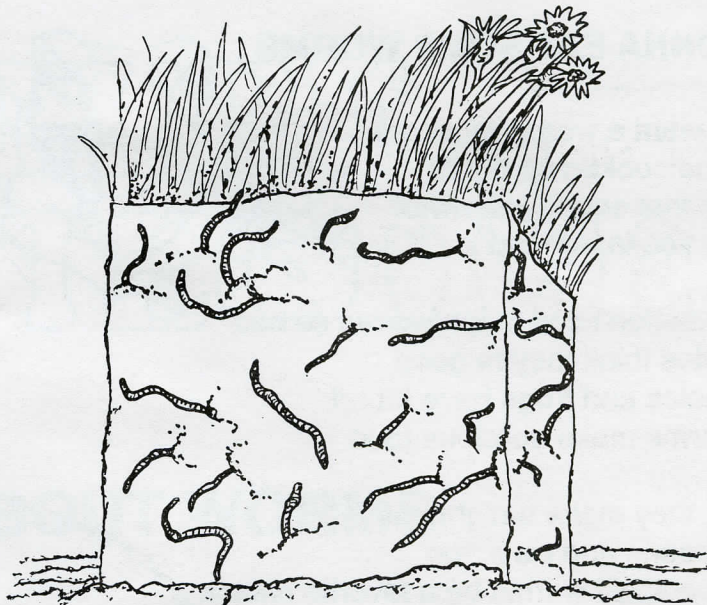
A worm's head really isn't much of a head at all - no eyes, nose, ears, or teeth. In fact, a worm's head looks an awful lot like its tail! But, the head end is more pointed than the flattened tail end. Even though worms don't have eyes, they are able to sense light and dark using special skin cells. This keeps them from drying out in the sun or getting eaten by above-ground predators. Even without teeth, a worm's mouth is quite useful. At night a worm will stretch out of its tunnel and squeeze the edge of a leaf against its mouth, drag it down into the burrow and eat the food in safety. The food looks like a dark stripe inside of the worm as it passes through the digestive tract.

Thick middles

The thick band near the middle of the worm is called a clitellum (kly-TELL-um). It makes a lemon shaped slime cocoon that keeps the eggs safe after the worm lays them in the soil.

AN ACRE OF WORMS

Since earthworms are shy of light, they burrow into the ground and live in small tunnels of earth. Their favorite earth is found in meadows where over 500 earthworms may be found in each square yard of earth. Pasture meadows are rich in organic wastes and dried grasses which provide nourishment for the worms.



HELPING THE SOIL

Worms are good for the soil! They make burrows in the soil, which allow water and air to go deep into the ground. This keeps the soft topsoil in place and allows plants to grow better. All of this burrowing activity also mixes subsoil with topsoil, spreading out all of the organic material (food for plants). While the worms are busily moving around, they secrete slime from their bodies. This slime contains nitrogen, which feeds plants!

EARTHWORM MENU

Earthworms aren't too choosy. They'll eat crumpled dead leaves, or tiny bacteria and fungi. They even eat little decomposing bits of dead animals. Oh, and dirt of course!

As earth worms digest their food, they leave behind droppings called castings. Castings make a healthy dinner for plants.

LET WORMS DO THE WORK

How can you turn garbage into soil inside your own home? With a worm bin! First of all, a worm bin doesn't stink. And secondly, it's very easy. You can use a plain old wooden box that you might have out in the garage, or you can order a plastic one. You can put it in the basement or in the broom closet -- somewhere sort of dark. Make bedding by tearing newspapers into strips, then put them in the worm bin with a little water. Mix in some soil and add earthworms. Each day, bury the food scraps from your garbage in the bedding, and each day the worms will turn it into castings. When the worm bin is full of castings (after 3 or 4 months), put them in your garden and add new bedding. That's it!

For more detailed information see Worms Eat My Garbage by Mary Appelhof.



I'M GONNA EAT SOME WORMS

Do you want a worm for dinner
Fried and cooked up right?
Or does that sound just awful
And put you in a fright?



Well birds don't find those worms so bad
And turtles think they're good
Even moles and frogs have found
That worms make delicious food

Worms, they make a nighttime feast
For raccoons and owls, too
Would squiggly worms be a favorite choice
As a midnight snack for you?

Worms are easy to get hold of
Sliding on the ground
And there's always plenty
Millions all around

If they're squishy
If they're firm
Animals love to
Eat them worms!



HELP! This hungry earthworm needs help finding her way through the tunnels to the dried leaves and grass above ground.

