

## **Earthworms - Background Information**

Earthworms are members of the ringed animals or Annelida. There are approximately 1,800 species of earthworms worldwide. Some species are tiny; no more than 2 centimeters or 1 inch when fully grown. At the other end of the scale are giant earthworms in Australia that average 3 meters or 10 feet in length. The record holder for earthworms is found in South Africa. It measures 7 meters or 22 feet in length. Don't worry though. The largest earthworms or night crawlers in North America grow to about 30 centimeters or 13-15 inches.

Earthworms are fairly simple life forms. They are put together from a number of disk-like segments stuck together like a long flexible roll of Lifesavers™. Earthworms do not have an internal skeleton as we do, and they do not have a protective hard exoskeleton as does an insect. They are flexible, long bundles of muscle, especially designed for life underground. The characteristic wriggling of earthworms is done with two kinds of muscles. One set allows the earthworm to become thinner and longer while the other set enables it to become shorter and fatter. Earthworms can move very effectively in either direction, headfirst or tailfirst.

Earthworms have specialized structures that help them live very successfully in their environment. Instead of having lungs to pump oxygen, they have five sets of simple hearts. Their blood flows close to their outer surface, absorbing oxygen and releasing carbon dioxide through a thin skin. This is why worms leave the soil and crawl out on the sidewalks during a heavy rain...they are seeking oxygen.

Earthworms have a nervous system that controls their senses and detects vibrations, heat, cold, moisture, light and the presence of other worms. However, they have no brain, so earthworms do not ponder their lowly lot in life, nor do they plan out a strategy for obtaining their next meal or crossing the sidewalk safely.

Earthworms are pros at burrowing. They feed on decomposing organic material; mostly vegetation, from the surface of the soil and underneath the soil. As they burrow and feed, they process tons of soil and improve its quality for plants and other animals. So please be considerate of these valuable little animals. The next time you see them on a sidewalk after a rainstorm, help them back into the ground.