# Earthworm – *Lumbricus*

## Earthworm Classification

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|---|---|
| Kingdom: | Animalia |
| Phylum: | Annelida (the segmented worms) |
| Class: | Clitellata (clitellum forms cocoon) |
| Subclass: | Oligochaeta (the earthworms) |

**Earthworm** is the common name for the largest members of the Subclass Oligochaeta (Gr. *oligos*, few + *chaite* hair). Oligochaetes have setae, but fewer than found in polychaetes. Common names for earthworms include "night crawlers." Earthworms prefer moist rich solid that is neither too dry nor sand. Found all over the world, earthworms are nocturnal and come out of their burrows at night to forage. They are **detritivores,** feeding upon dead leaf litter. They consume very little soil. While earthworms are never dormant, they do retreat to permanent burrows which can be up to 2.5 meters deep. A single earthworm can live up to 6 years, maturing in 350 days.

While earthworms are **monoecious**, single individuals having both male and female reproductive organs, they reproduce sexually. The animals stick their heads up from their burrows on warm, humid nights when attracted by a neighboring worm's glandular secretions. Copulating earthworms overlap front ends ventrally and secrete quantities of mucus from their **clitellum** to form a slime tube around the pair. Each earthworm exchanges sperm with the other, storing its partner's sperm in its **seminal receptacles**. The **cocoon**, or egg case, is secreted by the clitellum. Long after the worms have separated, the clitellum produces a secretion that finally hardens over its outer surface, forming a ring around the worm. The worm then backs out of the ring, and as it does so, injects its own eggs and the other worm's sperm into it. As the worm slips out, the ends of the cocoon seal to form a vaguely lemon-shaped cocoon in which the embryonic worms develop. They emerge as small, but fully formed earthworms, except for a lack of the sex structures. They can produce 38 cocoons annually, each cocoon having 1 to 20 eggs, depending on the species. This allows colonies to spread about 3-5 meters per year.

Earthworms have a limited ability to **regenerate** lost segments, but this ability varies between species and depends on the extent of the damage.

Copulating Earthworms

Earthworm Cocoons

Photo source: wikipedia – earthworm

Link to everything you wanted to know about earthworms and more!

| Organ System | Structures to Identify |
|---|---|
| Circulatory | Aortic arches (“hearts”) & Dorsal blood vessel |
| Digestive | Calciferous glands, Crop, Esophagus, Gizzard, Intestine, & Pharynx |
| Excretory | Bladder, Ciliated tube, Nephridiopore, Nephridium, Nephrostome |
| Integumentary | Septum |
| Nervous | Cerebral ganglion, Subpharyngeal ganglion, & Nerve cord |
| Reproductive | Ovary, Oviduct, Seminal receptacles, Seminal vesicles, Sperm duct, Sperm funnel, Testis |