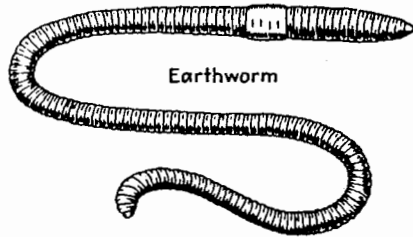


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# Natural History Notes



MIKE DOMBECK grew up in the Moose Lake area and graduated from Hayward High School and the University of Wisconsin-Stevens Point. He has a B.S. degree in Biology and an M.S. degree in Aquatic Biology. He has taught Zoology at the University of Wisconsin-Stevens Point and is now a fisheries biologist with the U.S. Forest Service, living in Munising, Michigan. Mike has also been an area fishing guide since his high school days.



## MORE THAN FISH BAIT

Night Crawlers and fishing are almost synonymous. Almost everyone who has fished has used these critters for bait and with excellent success, especially when compared to other types of bait. Anglers using night crawlers have caught almost every species of fish we have, from trout to muskies and panfish to sturgeon. These long slippery animals are often lumped into one category most commonly called worms. But the night crawler — also known as the earthworm, the beaver tail or the dew worm — is one of the most common and numerous worm species. It belongs to a large group of elongate soft-bodied animals called Annelids, which means ringed segmented. The technical name for this animal is *Lumbricus terrestris* which means earthworm.

If you think of this animal as mere fish bait, a lowly creature which lives in the dirt, you are uninformed. This animal has had several books written about it. Many famous scientists have studied it. For example, Charles Darwin studied the night crawler for over 40 years and became an expert, publishing an entire book on the biology of this creature. Every biology book features this animal and almost every biology student has dissected a night crawler to learn more about the basis of living systems. These creatures are an engineering phenomenon which have inhabited the earth millions of years before man or other higher forms of life.

The next time you put one of these squirmy critters on a hook take a good close look. Night crawlers are essentially a hollow tube divided into 125 to 200 ringlike segments. The head end of the worm is dark maroon on the top side while the tail end is flattened like a beaver tail. Each segment has four pairs of minute bristles used for moving or burrowing. Each segment also has its own kidney system which opens via a small pore to eliminate

waste products. The brain is in segment III and the nerve cord starts in segment IV and runs the entire length of the body. Night crawlers are very sensitive to vibrations and light.

The five hearts are located in segments VII to XI. The sperm duct opens in segment XV, while the oviduct opens in segment XIV. Both sexes are contained within each animal, a characteristic called hermoproditism, which is fairly common in lower animals. When night crawlers mate they exchange sperm and lay about 15 eggs per year. The enlarged "collar" or "saddle" located over segments XXXII to XXXVII is called the clitellum and is a gland which forms a cocoon over each egg that is laid. Under proper conditions the egg will hatch into a tiny night crawler in about three weeks. These creatures have the fantastic ability to regenerate body parts. Cut it in two ahead of the tenth segment and the head area will grow back, cut it between the XII and XVIII segment and the tail portion will grow back . . . . . Think of it — cut off an arm or a leg and grow a new one! Worms do it — why can't we?

Night crawlers live underground in moist tunnels that can be up to eight feet deep. This tunnel is its entire world and if displaced, they will usually die. Sometimes they must leave their tunnel after a heavy rain or they will suffocate when the tunnel becomes flooded. During winter they live below the frost line to avoid freezing and may also burrow downward to moist soil during dry spells. They are constantly cleaning and enlarging their burrows during their 20-year life span when they may grow up to a foot long. An Australian relative of our night crawler grows up to 11 feet long.

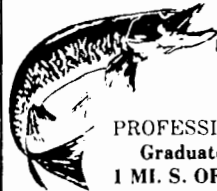
Night crawlers generally emerge at night where they feed on dead vegetation and carry it below the surface. They are important in the formation of topsoil. Darwin felt that they could produce up to 18 tons of topsoil per acre per year. Night crawlers inhabit the earth by the billions and at ten cents each make up a multi-million dollar fish bait industry and contribute to many happy hours of fishing.

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