## Leeches, Tubifex, & Planaria Worms

Worms are actually many different animals from several major unrelated invertebrates that share a similar body shape. Leeches, tubifex and earth worms are all in the same phylum, Annelida, meaning segmented worm. Annelids have bodies made of a series of segments. Meanwhile Planaria, commonly found in the aquariums, are from the phylum Platyheminthes. Planaria are a type of flatworm that are mostly scavengers whose bodies are not in segments.

#### Leeches -

#### Annelida: Hirudinea

Leeches (often misspelled leach or leaches) are flattened segmented worms with a sucker on both tail and mouth. They move by attaching the mouth sucker, then tail sucker, then mouth sucker, and so on, flipping along the surface. Most leeches live in the water, though some can survive dry periods water by burrowing in the mud. Some leeches even live in moist environments on the land. Most leeches will avoid the light. Leeches are most commonly known for attaching on to humans and other animals, and sucking their blood. Blood sucking leeches have well developed jaws. Different types of leeches feed on different animals, though there are also some that eat plants, and some that feed on carrion. Some of the leeches that feed on humans secrete a substance that has been found to be an anticoagulant.

#### **Tubifex Worms –**

### Annelida: Oligochaeta

Tubifex are true worms, related to the earthworm. They are up to about 1 inch long, red in color and get the color from blood showing through their body. Tubifex worms are bottom dwelling and live in tubes. They live head down with their tails waving out of the top of the tubes. They are also a very popular fish food. This aquatic angleworm is right at home in mucky water. Sometimes called a sludge worm, it will even live in grossly polluted waters. It buries its head in the bottom mud, eating away sifting through the mud while letting its tail wave in the current. Just like a land worm, an aquatic worm eats mostly dead plants. If a particularly juicy dead animal is nearby it will munch on that too, just as long as it doesn't have to travel too far. Amazingly, this worm can live where there is hardly any oxygen from the water. This worm breathes right through its skin. It is also both male and female at the same time. Thus, when two worms mate both worms are fertilized.

#### Planaria -

# Platyheminthes: Turbellaria

Planaria are often confused with leeches, though they can be told apart easily be visual observation. Planaria are a type of larger flatworm from the suborder triclads. They measure 0.1 to 0.6 inches and are very small. A

Planarian look like a small flattened slug and leaves also a trail of lethal slime where it goes. You can tell the difference by its unsegmented body and two cross-eyes at its triangular shaped head. The mouth of the planaria is the only opening to its digestive system and is located under the middle of its body. Planaria is more commonly a problem in the aquarium in tanks with egg laying fish that don't protect their eggs. The planaria can eat the fish eggs be deadly to water fleas, seed shrimp and clam shrimp. Most planaria are scavengers of some sort but they are also often very opportunistic and will eat anything they can. Planaria are hitchhikers and can easily transfer to other aquariums on plants. A planaria doesn't need gills or lungs. It gets oxygen right through its skin! It is interesting that if you cut a planaria in two from head to tail, both halves will live and grow new complete bodies. Planaria can reproduce both sexually and asexually, though they can't fertilize their own eggs. They can reproduce asexually by splitting in the middle to form clones of themselves. A planarian can regenerate even if cut into 1/279 pieces. The different methods planaria use to reproduce may depend on the conditions of its current environment.