

## Animal Classification Outline

Note: This page is under construction. Vertebrates will be added in the next day or two. This outline is intended as a HELP to you in studying animal classification. It is not complete and does not contain all of the information you need to know. You must still read your book. These are the pictures you need to be able to identify.

### **Domain Eukarya**

#### **Kingdom Animalia**

##### **Invertebrates**

**Phylum Porifera (Sponges)** - Aquatic; lack true tissues and organs; motile larvae and sessile adults; filter feeders; internal skeleton made up of spngin and/or spicules of calcium carbonate or silica .



**Phylum Cnidaria (previously coelenterates)** – Aquatic; mostly carnivorous; 2 cell layers; radial symmetry; tentacles bear stinging nematocysts; many alternate between polyp and medusa; gastrovascular cavity.

##### **Class Hydrozoa**



##### **Class Scyphozoa**



##### **Class Anthozoa**

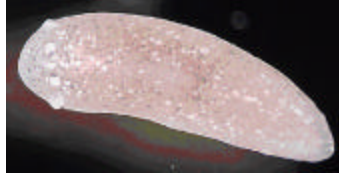


**Phylum Ctenophora (comb jellies)**



**Phylum Platyhelminthes (flatworms)** – 3 cell layers (endoderm, mesoderm, ectoderm); bilateral symmetry; some cephalization; acoelomate; free-living or parasitic

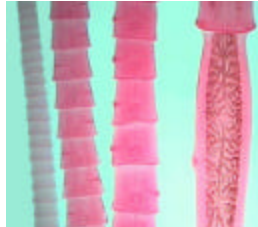
**Class Turbellaria**



**Class Trematoda**



**Class Cestoda**



**Phylum Nemertea (proboscis worms)**

**Phylum Rotifera (rotifers)**



**Phylum Nematoda (roundworms)** – Digestive system has 2 openings, mouth and anus; pseudocoelomates.



**Phylum Mollusca (mollusks)** – Soft-bodied; often possess a hard, calcified shell secreted by a mantle; muscular foot; digestive system with 2 openings.

**Class Bivalvia**



**Class Gastropoda**



**Class Polyplacophora**



**Class Cephalapoda**



**Phylum Onychophora**

**Phylum Annelida (segmented worms)** – Body composed of segments separated by internal partitions; digestive system has two openings; coelomate; closed circulatory system.

**Class Polychaeta**



**Class Oligochaeta**



**Class Hirudinea**



**Phylum Arthropoda (arthropods)** – Exoskeleton of chitin; jointed appendages; segmented body; many undergo metamorphosis during development; open circulatory system; largest animal phylum.

**Subphylum Trilobitomorpha (trilobites)** - 2 furrow running from head to tail divide body into 3 lobes; one pair of unspecialized appendages on each body segment; each appendage divided into two branches – a gill and a walking leg; **ALL EXTINCT.**

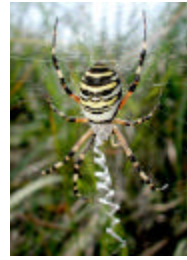


**Subphylum Cheliceriformes (Chelicerata, Chelicerates)** – First pair of appendages specialized as feeding structures called chelicerae; body composed of 2 parts – cephalothorax and abdomen; lack antennae; most terrestrial.

**Class Merostomata – “living Fossils”**



**Class Arachnida (spiders, ticks, scorpions)**



**Subphylum Uniramia (uniramians)** - Almost all terrestrial; one pair of antennae; mandibles; unranked appendages.

**Class Chilopoda (centipedes)**



**Class Diplopoda (millipedes)**



**Class Insecta (insects)**



**Subphylum Crustacea (crustaceans)** – Most aquatic; most marine; 2 pairs of antennae; mouthparts called mandibles; appendages consist of 2 branches; many have a carapace that covers part or all of the body. Crab, crayfish, pill bug, water flea, barnacle.