

“INVERTEBRATE” CLASSIFICATION

"EUKARYOTES"* (also includes green plants, red algae, fungi, etc.)

"PROTISTS" (single celled eukaryotes without plastids)†

CHOANOFLAGELLATES (collared flagellates)

Phylum Choanoflagellata ~**50**‡

METAZOANS (=ANIMALS: multicellular eukaryotes)

PARAZOANS

"Phylum Porifera" (sponges) **8,500**

Class Calcarea (calcareous sponges)

Class Demospongiae (demosponges)

Class Hexactinellida (glass sponges)

"MESOZOANS"

Phylum Placozoa **1–2**

Phylum Monoblastozoa (**1 species**)

Phylum Rhombozoa (**70 species**)

Phylum Orthonectida (**20 species**)

"RADIATANS"

Phylum Cnidaria (jellyfish, sea anemones, hydras, corals, etc.) **9,000–10,000**

Class Hydrozoa (hydras, *Obelia*, etc.)

Class Scyphozoa (jellyfish)

Class Cubozoa (box jellyfish)

Class Anthozoa (sea anemones, corals, sea pens)

Subclass Hexacorallia (sea anemones, stony corals, corallimorphs)

Subclass Octocorallia (sea fans, sea whips, sea pens, soft corals)

Phylum Ctenophora (comb jellies) **150**

BILATERIANS

“PROTOSTOMES”

"ACOELOMATES"

Phylum Platyhelminthes (flatworms) **30,000**

"Class Turbellaria"

Order Polycladida

Order Tricladida

Order Rhabdocoela

Subphylum Neodermata

Class Monogenea

Class Trematoda

Subclass Aspidogastrea

Subclass Digenea

Class Cestoda

Phylum Nemertea (ribbon worms) **1,200**

Phylum Gastrotricha (gastrotrichs) **790**

Phylum Gnathostomulida (jawed worms) **315**

Phylum Micrognathozoa (micrognathozoans) **2**

"BLASTOCOELOMATES"

Phylum Nematoda (round worms) **28,000**

Class Rhabditea

Class Enoplea

Phylum Nematomorpha (horsehair worms) **300**

Phylum Rotifera (rotifers) **2,000**

Class Digonata

Class Monogononta

Phylum Acanthocephala (thorny-headed worms) **1,200**

Phylum Cycliophora (cycliophorans) **2**

Phylum Kinorhyncha (mud dragons) **200**

Phylum Priapula (penis worms) **19**

- Phylum Loricifera (loriciferans) **22**
- "EUCOELOMATES" (=coelomates)
 - Phylum Mollusca (clams, snails, squids, etc.) **93,000 (up to 150,000?)**
 - Class "Aplacophora" (solenogasters & caudofoveatans) **370**
 - Class Polyplacophora (chitons) **1,000**
 - Class Monoplacophora (trybilids) **30**
 - Class Scaphopoda (tusk shells) **900**
 - Class Bivalvia (mussels, clams, oysters) **15,000**
 - Subclass Protobranchia
 - Subclass Lamellibranchia
 - Subclass Anomalodesmata
 - Class Gastropoda (snails, slugs, limpets, nudibranchs) **70,000**
 - Subclass Prosobranchia
 - Subclass Opisthobranchia
 - Subclass Pulmonata
 - Class Cephalopoda (octopods, squids, nautilus) **900**
 - Subclass Nautiloidea **5**
 - Subclass Coleoidea **895**
 - Phylum Annelida (including Pogonophora) (segmented worms) **22,000–25,000**
 - Class Polychaeta **10,000–13,000**
 - Class Clitellata **6,500–8,700**
 - Subclass Oligochaeta **6,000**
 - "Subclass Hirudinea" (leeches) **680**
 - Phylum "Echiura" (spoon worms) **230**
 - Phylum Sipuncula (peanut worms) **150**
 - Phylum Arthropoda (arthropods) **1,098,000**
 - Subphylum Hexapoda (EEB 4286, etc.)
 - Subphylum Trilobitomorpha† 20,000?
 - Subphylum "Crustacea" **68,000**
 - Class Maxillopoda (barnacles, pentastomes, copepods, ostracods, branchiura) **26,000**
 - Subclass Copepoda (copepods) **13,000**
 - Subclass Branchiura (fish lice) **130**
 - Subclass Pentastomida (pentastomes) **130**
 - Subclass Thecostraca **1,285**
 - Infraclass Cirripedia (barnacles)
 - Subclass Ostracoda **13,000** (extant)
 - Class Malacostraca (crabs, crayfish, isopods, amphipods, euphausiids) **40,200**
 - Order Stomatopoda (mantis shrimp) **350**
 - Order Decapoda (crabs, shrimps, lobsters, etc.) **14,000–18,000**
 - Order Amphipoda (amphipods) **9,749**
 - Order Isopoda (isopods) **10,297**
 - Class Branchiopoda (fairly shrimp, etc.) **1,180**
 - Order Anostraca (fairy shrimp) **300**
 - Order Notostraca (tadpole shrimp) **12**
 - Order Diplostraca (conchostracans, water fleas) **1,500**
 - Subphylum Myriapoda **16,000**
 - Class Diplopoda (millipedes) **12,000**
 - Class Chilopoda (centipedes) **3,000**
 - Class Symphyla **160**
 - Class Pauropoda **500**
 - Subphylum Cheliceriformes **78,000**
 - Class Chelicerata **77,000**
 - Subclass Merostomata
 - Order Xiphosura (horseshoe crabs) **6**
 - Order Eurypterida† (water scorpions)
 - Subclass Arachnida
 - Order Scorpiones **1,500**
 - Order Uropygi (whip scorpions) **100**

- Order Pseudoscorpionida (pseudoscorpions) **3,300**
- Order Aranae (spiders) **35,000**
- Order Opiliones (harvestmen) **5,000**
- Order Acari (mites and ticks) **49,000**
- Class Pycnogonida **1,000**
- Phylum Tardigrada **1,000**
- Phylum Onychophora **180**
- "LOPHOPHORATES"
- Phylum Bryozoa (ectoprocts) **4,500**
- Phylum Entoprocta (entoprocts) **150**
- Phylum Brachiopoda (lamp shells) **385** (extant)
 - Class Inarticulata
 - Class Articulata
- Phylum Phoronida (horseshoe worms) **20**
- DEUTEROSTOMES
- Phylum Echinodermata (sea stars, sea urchins, sea cucumbers, etc.) **7,000**
 - Class Crinoidea (feather stars) **600**
 - Class Asteroidea (sea stars) **1,500**
 - Class Ophiuroidea (brittle stars) **2,000**
 - Class Echinoidea (sea urchins) **950**
 - Class Holothuroidea (sea cucumbers) **1,700**
- ? Phylum Chaetognatha (arrow worms) **200**
- Phylum Hemichordata (acorn worms & pterobranchs) **110**
 - Class Enteropneusta **75**
 - Class Pterobranchia **30**
 - Class Planctosphaeroidea **4**
- Phylum Chordata **65,000**
 - Subphylum Urochordata (ascidians, sea squirts, salps, larvaceans) **3,000**
 - Class Ascidiacea (sea squirts) **2,815**
 - Class Thaliacea (thalacians) **50**
 - Class Appendicularia (larvaceans) **70**
 - Class Sorberacea **6**
 - Subphylum Cephalochordata (lancets) **45**
 - Subphylum Vertebrata (vertebrates) **(46,670 species)**

*= non-monophyletic groups

†= Taxa in grey not covered

‡= estimated number of extant species