

# A CLASSIFICATION OF LIVING THINGS

This chart contains a representative sample of major groups of living things. Minor phyla and/or those with few species are not included unless they have special significance.

Classifications of this nature differ among biologists, this is not a cause for concern, but an indication of healthy debate. A name in parenthesis behind a group is a representative member of that group. A name in parenthesis with an equal sign is another name for the same group.

A new top level taxon(group) is currently being discussed among biologists, especially microbiologists. This new taxon, the [Domain](#), seems to be gaining acceptance.

- **KINGDOM Monera:** Prokaryotic, unicellular, nutrition mainly by absorption with some photo- or chemosynthesis
  - Phylum Archaeobacteria: "Ancient" bacteria
  - Phylum Schizophyta: bacteria
  - Phylum Cyanobacteria: blue-green bacteria(=algae), photosynthetic
- **KINGDOM Protista:** typically unicellular, eucaryotic, nutrition by absorption, ingestion and photosynthesis
  - Phylum Protozoa
    - Class Mastigophora: flagellated protozoans (Euglena)
    - Class Sarcodina: amoeba-like protozoans (Amoeba)
    - Class Ciliophora: ciliated protozoans (Paramecium)
    - Class Sporozoa: parasitic protozoans (Malaria)
  - Phylum Chrysophyta: golden algae and diatoms
  - Phylum Pyrrophyta: Dinoflagellates
- **KINGDOM Fungi:** multicellular, eucaryotic plant-like organisms, nutrition by absorption, cell walls made of chitin
  - Phylum Myxomycophyta: slime molds
  - Phylum Eumycophyta: true fungi
    - Class Phycomycetes: bread molds
    - Class Ascomycetes: Sac fungi (yeast)
    - Class Basidiomycetes: club fungi (mushrooms)
- **KINGDOM Plantae:** multicellular, eucaryotic, rigid cell walls, nutrition by photosynthesis (Traditionally Phyla in the plant kingdom have been called Divisions)
  - Division Chlorophyta: green algae
  - Division Rhodophora: red algae (seaweeds)
  - Division Phaeophyta: brown algae (kelp)
  - Division Bryophyta: mosses and liverworts
  - Division Tracheophyta: vascular plants
    - Subdivision Lycopsidea: club mosses
    - Subdivision Sphenopsida: horsetails

- Subdivision Pteropsida: ferns
- Subdivision Spermopsida: seed plants
- Class Gymnospermae: conifers
- Class Angiospermae: flowering plants
  - Subclass Dicotyledonidae: dicots
  - Subclass Monocotyledonidae: monocots
- **KINGDOM Animalia:** multicellular, eucaryotic, nutrition mainly by ingestion with internal digestive tract, mostly motile
  - Phylum Porifera: sponges
  - Phylum Cnidaria(=Coelenterata): radially symmetrical, marine
    - Class Hydrozoa: hydra
    - Class Scyphozoa: jellyfish
    - Class Anthozoa: corals, sea anemonies
  - Phylum Platyhelminthes: flatworms
    - Class Turbellaria: free-living flatworms (planeria)
    - Class Trematoda: parasitic flukes
    - Class Cestoda: parasitic tapeworms
  - Phylum Mollusca: mollusks, soft bodies, often with a shell, unsegmented bodies
    - Class Gastropoda: snails
    - Class Pelyceopoda: clams, oysters
    - Class Cephalopoda: octopus, squid
  - Phylum Annelida: segmented worms
    - Class Polychaeta: sand worms
    - Class Oligochaeta: earthworms
    - Class Hiridinea: leeches
  - Phylum Arthropoda: jointed-legged animals, segmented, exoskeleton
    - Class Crustacea: crayfish, lobsters
    - Class Arachnida: spiders, ticks
    - Class Chilopoda: centipedes
    - Class Diplopoda: millipedes
    - Class Insecta: insects
  - Phylum Echinodermata: radially symmetrical, spiny skins, marine
    - Class Crinoidea: sea lilies, feather stars
    - Class Asteroidea: starfish
    - Class Echinoidea: sand dollar, sea urchin
    - Class Holothuroidea: sea cucumbers
  - Phylum Chordata
    - Subphylum Urochordata: tunicates
    - Subphylum Cephalochordata: lancelets
    - Subphylum Vertebrata
      - Superclass Agnatha: jawless fish
        - Class Petromyzontes: lampreys
        - Class Myxini: hagfish

- Superclass Gnathostoma
  - Class Chondrichthyes: sharks, rays, etc.
  - Class Osteichthyes: bony fish
  - Class Amphibia: amphibians
  - Class Reptilia: reptiles
  - Class Aves: birds
  - Class Mammalia: mammals

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