

TAXONOMIC CLASSIFICATION SYSTEM BY LINEAGE

DOMAIN BACTERIA

- Phylum Spirochaeles
- Phylum Chlamydiales
- Phylum High-GC Gram Positives
- Phylum Cyanobacteria
- Phylum Low-GC Gram Positives
- Phylum Proteobacteria
 - Class ϵ -Proteobacteria
 - Class α -Proteobacteria
 - Class β -Proteobacteria
 - Class γ -Proteobacteria
 - Class δ -Proteobacteria

DOMAIN ARCHAEA

- Phylum Crenarchaeota
- Phylum Euryarchaeota

DOMAIN EUKARYA

Kingdom Excavata

- Phylum Diplomonadida (diplomonads)
- Phylum Parabasalida (parabasalids)

Kingdom Discicristata

- Phylum Euglenida (euglenids)

Kingdom Alveolata

- Phylum Ciliata (ciliates)
- Phylum Dinoflagellata (dinoflagellates)
- Phylum Apicomplexa (apicomplexans)

Kingdom Stramenopila (Heterokonta)

- Phylum Oomycota (oomycetes)
- Phylum Diatoma (diatoms)
- Phylum Phaeophyta (brown algae)

Kingdom Cercozoa

- Phylum Foraminifera, or forams

Kingdom Amoebozoa

- Phylum Gymnamoebae (lobose amoebae) *Entamoeba*, *Amoeba*
- Phylum Dictyostelida (cellular slime molds)
- Phylum Myxogastriada (plasmodial slime molds)

Kingdom Plantae (plants)

- Phylum Glaucophyta (glaucophyte algae)
- Phylum Rhodophyta (red algae)

Subkingdom Chlorophyta (green algae)

- Phylum Ulvobionta
- Phylum Coleochaetales
- Phylum Charales (stoneworts)

Land Plants

Nonvascular Plants (bryophytes)

- Phylum Hepaticophyta (liverworts)
- Phylum Anthoceroophyta (hornworts)
- Phylum Bryophyta (mosses)

Seedless Vascular Plants

- Phylum Lycophyta (lycophytes, or club mosses)
- Phylum Psilotophyta (whisk ferns)
- Phylum Sphenophyta, or Equisetophyta (horsetails)
- Phylum Pteridophyta (ferns)

Seed Plants

Gymnosperms

- Phylum Gnetophyta (gnetophytes)
- Phylum Cycadophyta (cycads)
- Phylum Ginkgophyta (ginkgo)
- Phylum Coniferophyta (conifers)

Angiosperms

- Phylum Anthophyta (flowering plants)
 - Monocyledon, or Monocots
 - Dicotyledon, or Dicots, or Eudicots

Kingdom Opisthokonta

Subkingdom Microsporidia

Subkingdom Fungi

- Phylum Chytridiomycota (chytrids)
 - Class Chytridiomycetes
 - Order Blastocladales
 - Order Chytridiales
- Phylum Zygomycota (zygomycetes)
 - Basidiobolus*
 - Class Zygomycetes
 - Order Entomophthorales
 - Order Mucorales
- Phylum Glomeromycota (arbuscular mycorrhizal fungi)
- Phylum Basidiomycota (club fungi)
- Phylum Ascomycota (sac fungi)
 - Lichen-formers
 - Non-Lichen formers

Subkingdom Choanoflagellata (choanoflagellates, or collar flagellates)

Subkingdom Animalia

Phylum Porifera (sponges)

Phylum Cnidaria

Class Hydrozoa (hydrozoans) *Hydra, Obelia, Physalia, Gonionemus*

Class Scyphozoa (jellyfishes) *Aurelia*

Class Anthozoa (sea anemones, corals) *Metridium*

Phylum Ctenophora (comb jellies)

Protostomes

Phylum Acoelomorpha (acoels)

Lophotrochozoa

Phylum Rotifera (rotifers)

Phylum Platyhelminthes (flatworms)

Class Turbellaria (planarians) *Dugesia*

Class Trematoda (flukes) *Clonorchis, Fasciola, Schistosoma*

Class Cestoda (tapeworms) *Taenia*

Phylum Annelida (annelids, or segmented worms)

Class Polychaeta (marine worms) *Neanthes*

Class Oligochaeta (aquatic and semi-terrestrial worms) *Lumbricus*

Class Hirudinea (leeches)

Phylum Mollusca (mollusks)

Class Bivalvia (bivalves) clams, mussels, scallops, oysters

Class Gastropoda (snails [nudibranchs, tree snails, etc.] sea slugs, land slugs)

Class Polyplacophora (chitons)

Class Cephalopoda (cephalopods) squids, nautilus, cuttlefish, octopuses

Ecdysozoa

Phylum Nematoda (nematodes, or roundworms, & hookworm) *Ascaris, Trichinella, & Necator*

Phylum Onychophora (onychophorans, or velvet worms)

Phylum Tardigrada (tardigrades, or water bears)

Phylum Arthropoda (arthropods)

Subphylum Chelicerata (chelicerates) horseshoe crabs, spiders, scorpions, ticks, mites

Subphylum Crustacea (crustaceans) shrimps, crayfishes, lobsters, crabs, barnacles,
copepods, isopods (sowbugs)

Subphylum Myriapoda (myriapods) millipedes, centipedes

Subphylum Insecta (insects) grasshoppers, cockroaches, lice, termites, flies, ants

Deuterostomes

Phylum Echinodermata (echinoderms)

Class Asterozoa (sea stars) *Asterias*

Class Ophiurozoa (brittle stars, basket stars)

Class Echinozoa (sea urchins, sand dollars)

Class Holothurozoa (sea cucumbers)

Class Crinozoa (feather stars, sea lilies)

Phylum Hemichordata (hemichordates, or acorn worms)

- Phylum Chordata (chordates, or vertebrates and ascidians)
 - Subphylum Urochordata (urochordates) tunicates, sea squirts
 - Subphylum Cephalochordata (cephalochordates) lancelets
 - Subphylum Vertebrata (vertebrates)
 - Class Myxinoidea (hagfish)
 - Class Petromyzontoidea (lampreys)
 - Class Chondrichthyes (sharks, rays, and skates)
 - Class Actinopterygii (ray-finned fishes)
 - Class Actinistia (coelacanths)
 - Class Dipnoi (lungfish)
 - Class Amphibia (amphibians)
 - Order Anura (frogs, toads)
 - Order Urodela (salamanders)
 - Order Apoda (caecilians)
 - Class Mammalia (mammals)
 - Subclass Monotremata (platypuses)
 - Subclass Marsupiala (marsupials)
 - Subclass Eutheria (placental mammals) 18 orders; 6 orders with most abundant species
 - Order Rodentia (rodents, or rats, mice, squirrels)
 - Order Chiroptera (bats)
 - Order Insectivora (hedgehogs, moles, shrews)
 - Order Artiodactyla (pigs, hippos, deer, sheep, cattle)
 - Order Carnivora (carnivores) dogs, bears, cats, weasels
 - Order Primates (lemurs, monkeys, baboons, apes, humans)
 - Class Reptilia (reptiles)
 - Subclass Testudinia (turtles, tortoises)
 - Subclass Lepidosauria (lizards, snakes)
 - Subclass Crocodylia (crocodiles, alligators)
 - Subclass Aves (birds)