

Life

2 Kingdoms (Linnaeus 1735)

Vegetabilia
Animalia

3 Kingdoms (Haeckel 1866)

Protista
Plantae
Animalia

2 Empires (Chatton 1925)

Prokaryota
Eukaryota

4 Kingdoms (Copeland 1938)

Monera
Protoctista
Plantae
Animalia

5 Kingdoms (Whittaker 1969)

K. *Protoctista* splits to
Protista
Fungi

6 Kingdoms (Woese et al. 1977)

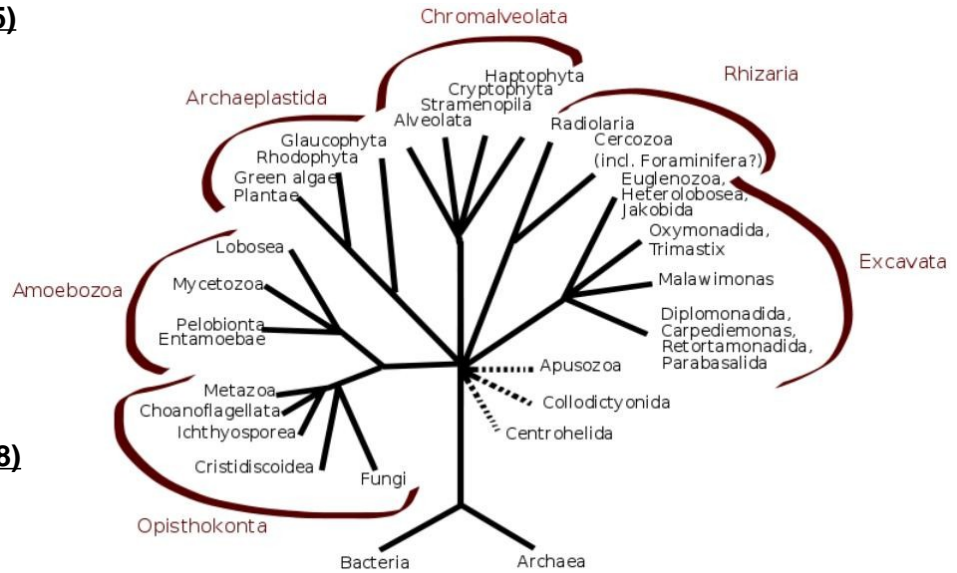
K. *Monera* splits to
Eubacteria
Archaeobacteria

3 Domains (Woese et al. 1990)

Domain *Archaea*
Kingdom *Archaea*
Domain *Bacteria*
Kingdom *Bacteria*
Domain *Eukarya*
Kingdom *Protoctista* (*Protista*)
Kingdom *Plantae*
Kingdom *Fungi*
Kingdom *Animalia*

6 "Supergroups" (Cavalier-Smith 2004)

Domain *Eukarya*
Excavata (flagellate protozoans)
Amoebozoa (amoebas and slime molds)
Opisthokonta (animals, fungi, choanoflagellates)
Rhizaria (Foraminifera, Radiolaria and amoeboid protozoa)
Chromalveolata (cryptomonads, heterokonta and alveolata)
Archaeplastida (plants, red and green algae and glaucophytes)



CARL LINNÆUS.

Animal Phyla

Headless animals - early

- Porifera* (pore bearer) sponges
- Cnidaria* (stinging nettle) coelenterates
- Ctenophora* (comb bearer) comb jellies
- Rhombzoa* (Lozenge animal)
- Placozoa* (plate animals)
- Orthonectida* (straight swim)

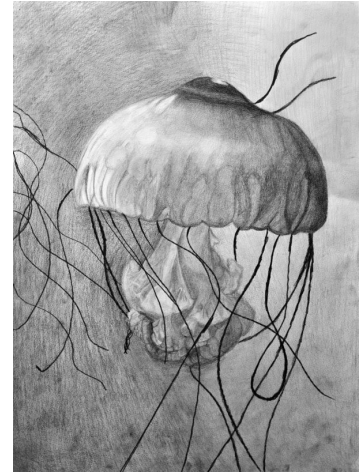
Protostomes

Acoelomates

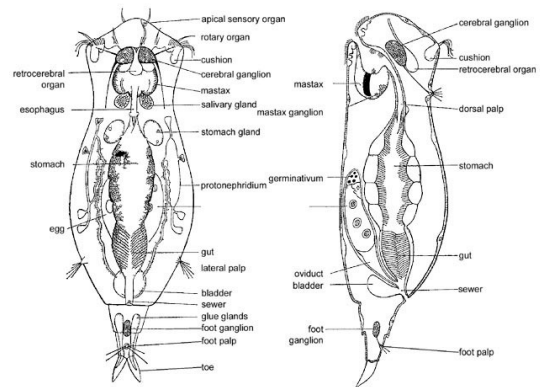
- Acoelomorpha* (without gut) Acoels
- Platyhelminthes* (flat worms)
- Nemertea* (sea nymph) ribbon worms

Pseudocoelomates

- Acanthocephala* (thorny-headed worms) descended from rotifers
- Chaetognatha* (longhair jaw) arrow worms
- Cycliophora* (wheel carrying) symbion
- Entoprocta* (inside anus) goblet worm
- Gastrotricha* (hair stomach) meiofauna
- Gnathostomulida* (jaw orifice) jaw worms
- Kinorhyncha* (motion snout) mud dragons
- Loricifera* (corset bearer) brush heads
- Micrognathozoa* (tiny jaw animals)
- Nematoda* (thread like) round worms
- Nematomorpha* (thread form) horsehair worms
- Priapulida* (little priapus)
- Rotifera* (Wheel bearer)



Jellyfish from
movingpicturesx.deviantart.com

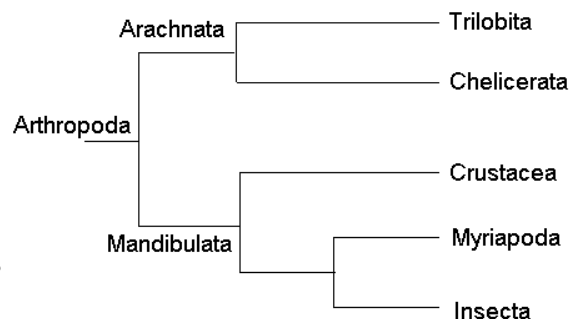


Haemocoel

- Tardigrada* (slow step) water bears

Coelomates

- Annelida* (little ring) segmented worms
- Sipuncula* (small tube) Peanut worms
- Phoronida* (Zeus's mistress) horseshoe worms
- Onychophora* (claw bearer) velvet worms
- Mollusca* (soft)
- Brachiopoda* (arm foot) lamp shells
- Bryozoa* (moss animals) moss animals or sea mats
- Arthropoda* (jointed foot) arthropods



Deuterostomes (all coelomates)

- Echinodermata* (spiny skin) echinoderms
- Xenoturbellida* (strange flatworm)
- Hemichordata* (half cord) acorn worms, pterobranchs
- Chordata* (cord) chordates



Chordate Classes

Subphylum Cephalochordata

Class *Leptocardii* (lancelets)

Subphylum Tunicata (Urochordata)

Class *Ascidiacea* (sea squirts)

Class *Thaliacea* (salps)

Class *Appendicularia* (larvaceans)

Class *Sorberacea* (similar to sea squirts)



Tunicata - sea squirts

Subphylum Vertebrata (craniata)

Class *Agnatha*

Subclass *Myzinoidea* hagfish

Subclass *Petromyzontida* lampreys

Subclass *Conodonts*

Subclass *Pteraspodomorpha* (paleozoic jawless)

Order *Anapsida*

Order *Thelodonti* (paleozoic, scales)

Infraphylum Gnathostomata (jawed vertebrates)

Class *Placodermi* armored fish

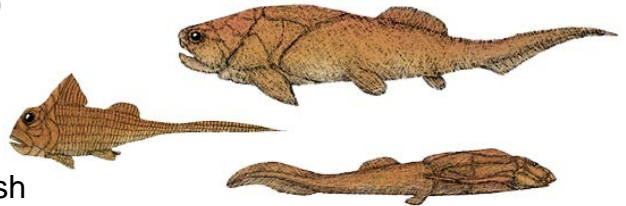
Class *Chondrichthyes* cartilaginous fish

Class *Acanthodii* "spiny sharks"

Class *Osteichthyes* bony fish

Subclass *Actinopterygii* ray-finned fish

Subclass *Sarcopterygii* lobe-finned fish



Superclass Tetrapoda (four-limbed)

Class *Amphibia*

Class *Reptilia*

Subclass *Anapsida* (extinct, possibly turtles)

Subclass *Diapsida* (also dinosaurs and progenitors of birds)

Class *Aves* birds

Class *Synapsida* therapsids and other proto-mammals

Class *Mammalia*

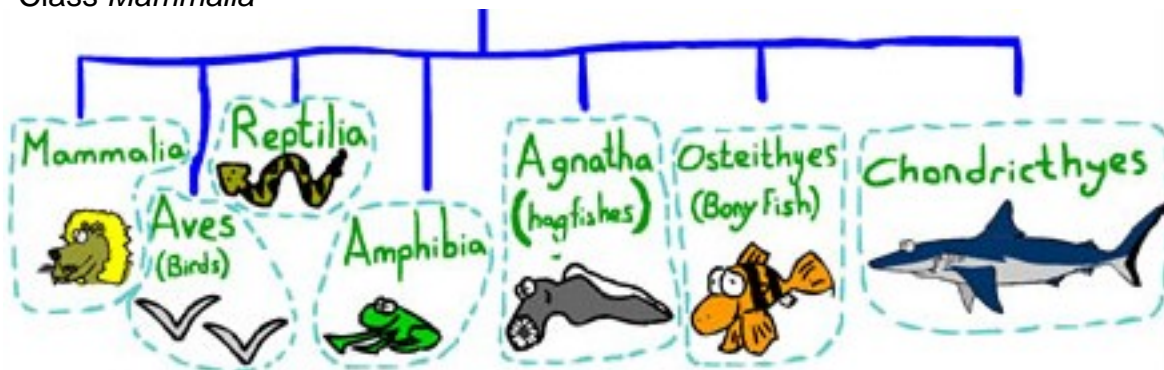


Image from sharky-jones.com

Mammalian Orders

Subclass Protheria

Order *Monotremata* (echidnas, duck-billed platypus)

Subclass Theria

Order *Didelphimorphia* (63 species) opossums

Order *Paucituberculata* (6 species) rat opossums

Order *Microbiotheria* (1 species) monito del monte or llaca

Order *Dasyuromorphia* (63 species) numbat, quolls, antechinususes, devil

Order *Peramelemorphia* (21 species) bandicoots, bilbies

Order *Notoryctemorphia* (2 species) marsupial "mole"

Order *Diprotodontia* (117 species) koala, wombats, cuscuses, rat kangaroos, kangaroos, wallabies, gliders, possums

Infraclass Eutheria (Placentalia)

Order *Insectivora* (429 species) solenodons, tenrecs, hedgehogs, shrews, moles

Order *Scandentia* (19 species) tree shrews

Order *Dermoptera* (2 species) colugos

Order *Chiroptera* (928 species) bats

Order *Primata* (236 species) aye-aye, lemurs, tarsiers, monkeys, apes, humans, gibbons, marmosets

Order *Carnivora* (271 species) cats, civets, mongooses, hyenas, wolves, foxes, jackals, bears, seals, sea lions, walrus, weasels, skunks, otters, raccoons

Order *Cetacea* (78 species) orquals, whales, dolphins, porpoises, narwhal, beluga

Order *Sirenia* (5 species) dugongs (sea cows), manatees

Order *Proboscidea* (2 species) elephants

Order *Perissodactyla* (18 species) horses, asses, zebras, tapirs, rhinoceros

Order *Hyracoidea* (6 species) hyraxes

Order *Tubulidentata* (1 species) aardvark

Order *Artiodactyla* (220 species) swine, peccaries, hippos, camels, llamas, chevrotains, giraffe, okapi, deer, pronghorns, antelope, bison, cattle, goats

Order *Pholidota* (7 species) pangolins (scaly anteaters)

Order *Rodentia* (2,024 species) squirrels, beavers, pocket gophers, rats, mice, kangaroo rats, dormice, old and new world porcupines, cavies, mole-rats, chinchillas, capybara, pacas, agoutis

Order *Lagomorpha* (80 species) pikas, rabbits

Order *Macroscelidea* (15 species) elephant shrews

Newer

Order *Soricomorpha* short-tailed shrews (split from *Insectivora*)

Order *Afrosoricida* African shrews (also *Tenrecomorpha*)

Order *Erinaceomorpha* Hedgehogs

Order *Cingulata* Armadillo (formerly in *Xenarthra*)

Order *Scandentia* Tree shrew

Order *Pilosa* Anteaters and sloths (formerly in *Xenarthra*)

Discontinued

Order *Xenathra* (29 species) sloths, armadillos, anteaters



Order Primata

Suborder *Strepsirrhini* (prosimians)

Infraorder *Lemuriformes*

Family *Cheirogaleidae* (dwarf lemurs and mouse lemurs)

Family *Daubentoniidae* (aye-aye)

Family *Lemuridae* (lemurs)

Family *Lepilemuridae* (sportive lemurs)

Family *Indriidae* (wooly lemurs)

Infraorder *Lorisiformes*

Family *Lorisiidae* (lorises and pottos)

Family *Galagidae* (galagos)

Suborder *Haplorhini*

Infraorder *Tarsiiformes*

Family *Tarsiidae* (tarsiers)

Infraorder *Simiiformes*

Parvorder *Platyrrhini* (New-World monkeys)

Family *Callitrichidae* (marmosets and tamarins)

Family *Cebidae* (capuchins and squirrel monkeys)

Family *Aotidae* (night owl monkeys)

Family *Pitheciidae* (titis, sakis, and uakaris)

Family *Atelidae* (howler, spider, woolly monkeys)

Parvorder *Catarrhini*

Superfamily *Cercopithecoidea* (Old-World monkeys)

Family *Cercopithecidae*

Subfamily *Cercopithecinae* (baboons and macaques)

Subfamily *Colobinae* (colobus, proboscis, langurs)

Superfamily *Hominoidea*

Family *Hylobatidae* (gibbons and "lesser apes")

Family *Hominidae* (great apes including humans)

Subfamily *Ponginae*

Genus *Pongo* (orangutans)

Subfamily *Homininae*

Tribe *Gorillini*

Genus *Gorilla*

Tribe *Hominini*

Genus *Pan* (chimps)

Species *Pan paniscus*

Species *Pan troglodytes*

Genus *Australopithecus* (extinct)

Genus *Paranthropus* (extinct)

Genus *Sahelanthropus* (extinct)

Genus *Orrorin* (extinct)

Genus *Ardipithecus* (extinct)

Genus *Kenyanthropus* (extinct)

Genus *Homo* (humans)



Lorisiidae - slow loris



Pongidae - Orangutan

Homo species include *sapiens*, *gautengensis*, *habilis*, *erectus*, *antecessor*, *ergaster*, *heidelbergensis*, *neanderthalensis*, *floresiensis*