

Historical Geology Notes

Important Fossil Animal Groups

Kingdom Animalia

Phylum Porifera (sponges)

Phylum Cnidaria (corals, anemones, jellyfish, hydra)

Class Anthozoa (corals and anemones)

Subclass Rugosa (Paleozoic solitary horn corals)

Subclass Tabulata (Paleozoic colonial corals)

Subclass Zoantharia (modern corals)

Phylum Bryozoa (tiny colonial coral-like animals, but anatomically more complex than coral)

Phylum Brachiopoda (dominant bivalve of the Paleozoic)

Phylum Arthropoda

Subphylum Trilobita (alternatively, Class Trilobita)

Subphylum Crustacea (shrimp, crabs, lobsters)

Subphylum Chelicerata (horseshoe crabs, eurypterids, arachnids [spiders])

Subphylum Labiata (insects, centipedes, milipedes)

Phylum Mollusca

Class Gastropoda (snails)

Class Pelecypoda (mollusk bivalves)

Class Cephalopoda (nautiloids, ammonoids, squid, octopus, cuttlefish)

Phylum Echinodermata

stalked echinoderms (classes cystoidea, blastoidea, and crinoidea)

Class Asteroidea (starfish)

Class Echinoidea (sea biscuits, sand dollars, sea urchins)

Phylum Chordata

Subphylum Vertebrata

Fishes

cartilaginous fish

Class Agnatha (jawless fishes, living lampreys and hagfish)

Class Acanthodii (fast-swimming primitive fish) extinct

Class Placodermi (primitive armor-plated fish) extinct

Class Chondrichthyes (sharks and rays)

bony fish

Class Osteichthyes

ray fins

lobe-fins

Class Amphibia (frogs and salamanders)

Class Reptilia

Subclass Anapsida (turtles, and extinct mesosaurs and cotylosaurs)

Subclass Euryapsida (extinct mostly marine, ichthyosaurs, plesiosaurs)

Subclass Diapsida (dinosaurs, crocodilians, lizards, snakes)

Subclass Synapsida (extinct mammal-like reptiles; sailback types, therapsids)

Class Aves (birds)

Class Mammalia

marsupials (pouched mammals; kangaroos, etc.)

placental mammals (shrews, bats, primates, rodents, whales, carnivores, antelopes)