

Classification of Living Things

Generally, all living things are classified following this general format:

Kingdom > Phylum > Class > Order > Family > Genus > Species

Each Kingdom is sub-divided into 2 or more "phyla" (singular "phylum") based on major distinguishing features. One major phylum includes all the vertebrates and is called "chordata" referring to the spinal cord. Chickadees and pickerel both have backbones and are in this phylum. The Order "Rodentia" includes red squirrels and beaver as both have specialized teeth for gnawing. Organisms are more closely related if they are classified in a group towards the right side of the chart.

The Animal Kingdom is divided into 2 major groups or phyla.

1. *Phylum chordata* (Vertebrates - animals with backbones and spinal cords) includes the five commonly known Classes: fish, reptiles, amphibians, birds, and mammals.

2. *Phylum non-chordata* (Invertebrates - animals without backbones or internal skeletons) includes the thousands of families and millions of species of insects, bugs, spiders, worms, crustaceans, etc.

The 5 Classes of vertebrates are further subdivided into a variety of Orders. Every Order is sub-divided into Families which are then sub-divided into Genera (singular Genus), and finally, the individual Species is recognized. As a general rule, a species is defined by its ability to mate and produce fertile offspring with others of its kind. An individual of one species usually does not or can not interbreed successfully with an individual of another species. However, there are exceptions. Some species of closely related birds such as Mallards and Black ducks will interbreed. The eastern red wolf is probably interbreeding with coyotes in Ontario; and there are many instances of wolf/dog pairings that result in "cross-breeds". Thus the classification and definition of species is ongoing,

The classification of the common Eastern chipmunk:

Kingdom Animalia (Animals)

Phylum "Chordata" (they have backbones and spinal cords)

Class "Mammalia" (mammals have fur or hair and feed milk to the young)

Order "Rodentia" (rodents are gnawing animals)

Family "Squirrelae" (the Squirrel family)

Genus "Tamias" (Greek for 'food storer')

Species "striatus" (referring to its stripes)

Thus the "scientific name" (genus and species names) is "Tamias striatus"