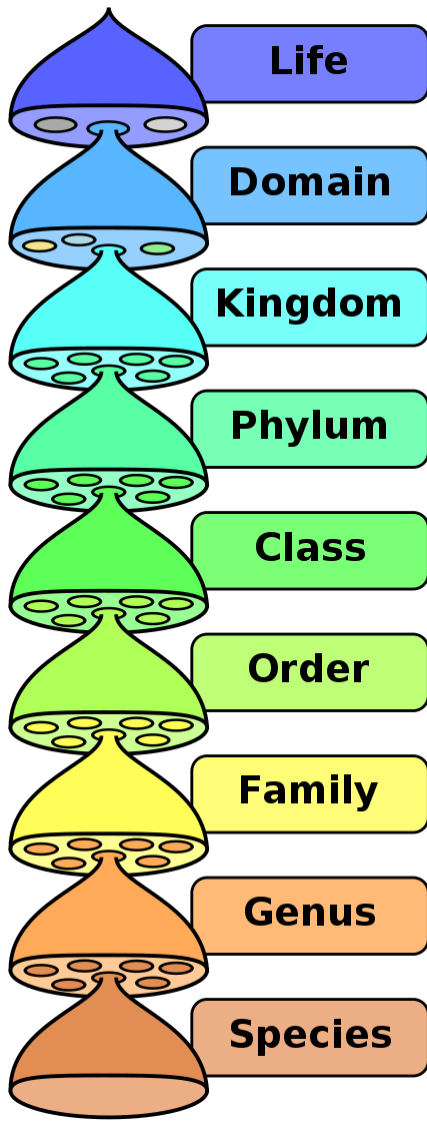


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Biological classification

method of scientific taxonomy

Biological classification is how biologists
group organism.



A hierarchy of important ranks

The classification has its root in the work of Aristotle who invented a multi-ranked system. A great influence was Carolus Linnaeus, who popularized the idea of binomial nomenclature using a two-part name indicating the genus, and the species. The human species is named *Homo sapiens*. Names of species are often printed in italics, although there is no obligation to do so (this also goes for names of genera, etc., etc.)

Biological classification is also known as taxonomy. It is a science, and like most sciences has evolved over time. At various times different principles were adopted, and it is not rare for different scientists to use different methods. Since the early 20th century, groupings are supposed to fit the Darwinian principle of common descent. These days, molecular evolution studies, which use DNA sequence analysis as data, are popular. This is often called "phylogenetics", a branch or form of

cladism. This approach creates an evolutionary Tree of life (biology), and uses characters (traits) to decide on the branches of the taxonomy.

Sometimes organisms placed in the same group (taxon) are similar; such similarity is not necessarily coincidence. It may be the result of shared descent from a common ancestor. **Cite error: A `<ref>` tag is missing the closing `</ref>` (see the [help page](#)).**

Name endings

Taxa above the genus level are often given names based on a "type genus", with a standard suffix. The suffixes used in forming these names depend on the kingdom, and sometimes the phylum and class, as set out in the table below.

| Rank | <u>Plants</u> | <u>Algae</u> | <u>Fungi</u> | <u>Animals</u> |
|-----------------------|----------------------|--------------|--------------|----------------------|
| Division/Phylum | -phyta | | -mycota | |
| Subdivision/Subphylum | -phytina | | -mycotina | |
| Class | -opsida | -phyceae | -mycetes | |
| Subclass | -idae [<i>sic</i>] | -phycidae | -mycetidae | |
| Superorder | -anae | | | |
| Order | -ales | | | |
| Suborder | -ineae | | | |
| Infraorder | -aria | | | |
| Superfamily | -acea | | | -oidea |
| Family | -aceae | | | -idae [<i>sic</i>] |
| Subfamily | -oideae | | | -inae |
| Tribe/Infrafamily | -eae | | | -ini |
| Subtribe | -inae | | | -ina |

Related pages

- [Binomial nomenclature](#)
- [Taxonomy](#)

- Systematics
- Cladistics
- Molecular evolution
- Molecular clock
- Phylogeny.
- Wastebasket taxon
- Evolutionary_grade

References

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