

Taxonomic Hierarchy

To achieve the ranking in Taxonomy a hierarchy of categories is suggested. It was Linnaeus (1753,1754) who for the first time suggested such hierarchy and 80 it is known as Linnaean Hierarchy. It was developed long before the knowledge of evolution during 15th or 16th centuries. Species is the fundamental unit of it. Linnaeus hierarchy was slightly modified over the years and is as follows:

Division Class Order Family Genus
Species Subspecies Variety Form

Now many intermediate categories are included in it such as subfamily, sub genus, section, tribe etc .

The Linnaean hierarchy is viewed as a system of classes within classes and named nested classes by Buck and Hull (1966). In Linnaean hierarchy category means a particular level or rank in the taxonomic hierarchy, e.g genus or class, and taken collectively all these available categories represent all the different levels. Taxon means a cluster of individuals grouped together based on the sharing of features in common. The taxa are referred to particular categories, e.g., species or variety available in the hierarchy.

In the accepted system of nomenclature every individual plant is treated as belonging to a number of taxa of consecutively subordinate ranks; each with subcategories or taxa of consecutively as ascending rank e.g., an individual plant of swamp rose would belong to the consecutively higher ranks of the species, For example : *Ranunculus muricatus* species is *muricatus*, Genus is *Ranunculus*, Family: *Ranunculaceae*, Order: *Ranales*: Class: *Magnoliopsida* and Division:

Magnoliophyta, according to recent system of classification. The suffix for each rank is different, e.g., *aceae* suffix shows a name of family.

Conceptually, the ranks of taxa can not be defined precisely, just arranged hierarchically. A group of plants, however, can be circumscribed and delimited as named ranks, e.g., rose in the genus *Rosa*. Asters for the genus *Aster*. Natural groups are treated as ranks at the generic, familial and higher categories, e.g. Pines (*Pinus*), Oaks (*Quercus*), Clover (*Trifolium*). The only Taxonomic group with an inherent rank in the species aside from infraspecific taxa (Cronquist, 1968)

**TABLE 1
TAXONOMIC HIERARCHY**

RANK	SUFFIX	EXAMPLE
DIVISION	PHYTA,MYCOTA	MAGNOLIOPHYTA
SUBDIVISION	PHTINA, MYCOTINA	PTEROPHTINA EUMYCOTINA
CLASS	OPSIDA	PTEROPSIDA
	PHYCEAE	CHLOROPHYCEAE
SUBCLASS	OPSIDAE	PTEROPSIDAE
ORDER	ALES	ROSALES
SUBORDER	INEASE	ROSINEAE
FAMILY	ACEAE	ROSACEAE
SUBFAMILY	OIDEAE	ROSOIDEAE
TRIBE	EAE	ROSEAE
SUBTRIBE	INAE	ROSINAE
GENUS	US,A,UM,ES	ROSA,GEUM

Species

Subspecies

Varieties

Sub varieties

Forma

Sub forma

The name of an infraspecific taxon is a combination of the name of a species and an infraspecies epithet connected by a term denoting its rank. Infraspecific epithet is formed as those of species and, when adjectival in form and not used as substantives, they agree grammatically with the generic name, eg., *Saxifraga aizoon* var. *gizoon*, *subvar. brevifolia* forma *multicaulis* subforma *surculosa* Engler and Irmischer or *Saxifraga aizoon* subform *surculosa*, Engler and Irmischer

Question: Write an essay on Taxonomic Hierarchy.