and kingdom). The varieties used by Linnaeus was subsequently either discarded or replaced by the sub¬species.

The above-discussed categories form the basic taxonomic hierarchy of animals. Thus any given species belong to these seven obligatory categories

TAXONOMIC CATEGORIES:

In taxonomy hierarchy we use different categories. The fundamental one being species category. The category above this rank are called supra-specific category and those below this rank are infra specific categories.

Classification involves hierarchy of steps in which each step represents a rank (taxonomic category or taxon). All categories together constitute the taxonomic hierarchy. Each taxon represents a unit of classification

SUPRASPECIFIC CATEGORIES

SPECIES: taxonomically a group of individual plants that are fundamentally alike. Ideally a species should be separated by distinct morphological differences from other closely related species. This will help in practical classification. A species should be reproductively isolated from members of other species.

A group of individuals in which the individuals can interbreed among themselves is called species. Members of a species have a large number of similar characters.

Genus: A group of closely related species is called genus .

Practically the genus is inclusive category whose species have more characters in common in each other than with species of other genera in the same family. Simply genera are aggragates are closely related species . *TOURNEFORT (1700)* is called father of generic concept.

Family: A group of closely related genera is called a family. The category of family is more inclusive than genus & species & represents the group related genera. *A.L.de jessieu (1789)* is called father of familian concept.

Order: A group of closely related families is called order. For example; Convolvulaceae and Solanaceae are plant families which belong to the order Polymoniales. Similarly, Felidae and Concidae belong the order Carnivora. .

Class: The group of closely related orders is called class. For example; orders Primata and Carnivora belong to the class Mammalia.

Phylum: A group of closely related classes is called phylum. In the Plant Kingdom; the term phylum has been replaced with division. For example; Pisces, Amphibia, Reptilia, Aves and Mammalia belong to the Phylum Chordata.

In current times, they are becoming key players in both the conservation of plants and in the education of the people who come to see them. They are also starting to play a role in the mitigation of the effects of climate change, and could be absolutely vital to the survival of the planet as they are perfectly placed to help move species around and help ecosystems to adapt to new climates in different regions

3 Museums: Collection of preserved plant and animal specimens , Useful for study and reference Specimens are preserved in containers or jars in preservative solutions. Specimens can also be preserved dry. Insects are preserved in insect boxes after collecting, killing, and pinning. Large animals – stuffed and preserved . Also have collection of skeletons of animals

Many public museums make these items available for public viewing through exhibits that may be permanent or temporary. The largest museums are located in major cities throughout the world, while thousands of local museums exist in smaller cities, towns and rural areas

4 Zoological parks: provide Protected environments for wild animals , condition similar to natural habitat. it Enable us to learn about their food habits and behaviour Key:

OTHER TAXONOMICAL AIDS

Flora, manuals, monographs, and catalogues are other taxonomical aids A Flora describes plants and where they live.

Floras; typically include a dichotomous key for identification purposes and often times will include range maps as well. Floras are almost always designed to be simultaneously regionally constrained and regionally exhaustive/complete (i.e., includes all plants that grow in that region or at least all taxonomic divisions of specified taxa)

MONOGRAPH;. A comprehensive systematic study of a particular taxonomic group.Always taxon-based, not geography-based

A manual ;applies much more broadly to plants, and typically instructs you on a subject (e.g., identification/differentiation of species). A manual does not need to be exhaustive and its scope is typically user defined (though often based on the scale/range of it's underlying subject). However, some have used the term manual to be more or less synonymous with Flora or otherwise similar document

A catalog; is simply a listing of all species organized in some way. These are usually alphabetical (vs. taxonomically organized like a typical Flora). You will also never find a key in a catalog and will often find less phytographic detail.

Taxonomic key

Taxonomic Key:

A key is a device, which when properly constructed and used, enables a user to identify an organism. Keys are devices consisting of a series of contrasting or contradictory

Example of an Indented Key on *Rhododendron*	
1a. Flowers in shades of red	
2a. Flowers blood-red, leaves oblong-ovate, leathery and thick matty texture	*R. sikkimense*
2b. Flowers crimson-red, leaves broad, oval to elliptic oblong, shiny green above	*R. fulgens*
1b. Flowers in shades of rose-pink	
3a. Calyx 3-5 mm long, leaf under surface covered with tufts of brown hair	*R. wallichii*
3b. Calyx obscure, 1-2 mm long, leaf under surface covered with continuous indumentum	
4a. Corolla in shades of deep rose-pink flushed externally with red-purple, young leaves aeruginose, leaf margins inrolled	*R. aeruginosum*
4b. Corolla pale lavender blue, mauve or rose-purple, rarely white, young leaves not aeruginose, leaf margins not inrolled	*R. campanulatum*

Example of an Indented Key on Rhododendron

Example of a Bracketed Key on *Rhododendron*		
1a.	Flowers in shades of red	go to 2
1b.	Flowers in shades of rose-pink	go to 3
2a.	Flowers blood-red, leaves oblong-ovate, leathery and thick matty texture	*R. sikkimense*
2b.	Flowers crimson red, leaves broad, oval to elliptic oblong, shiny green above	*R. fulgens*
3a.	Calyx 3-5 mm long, leaf under surface covered with tufts of brown hair	*R. wallichii*
3b.	Calyx obscure, 1-2 mm long, leaf under surface covered with continuous indumentum	go to 4
4a.	Corolla in shades of deep rose-pink flushed externally with red-purple, young leaves aeruginose, leaf margins inrolled	*R. aeruginosum*
4b.	Corolla pale lavender blue, mauve or rose-purple, rarely white, young leaves not aeruginose, leaf margins not inrolled	*R. campanulatum*

Example of a Bracketed Key on Rhododendron.

ii. Poly Clave Keys:

Another type of key, which is relatively a new alternative to dichotomous keys and becoming increasingly popular, especially because of the ease of computerizing them, is termed multiple access or poly clave or synoptic key. The advantage of these keys is that they allow the user to enter the key at any point.

This key is based on the identification of organisms by a process of elimination. In a written poly clave key there is a series of characters and character states. Each state is followed by a number or code for the species that possess that feature.

The user needs to select any character and then copy down the list of species that possess the feature. Then the user has to select another character and eliminate any species that is not common to both lists. This process has to be continued until the specimen is identified.