

Basic Definitions

Taxonomy: taxis (Gr.) = arrangement; nomos (Gr.) = law.

The description, ordering, and classification of living things.

"The theory and practice of classifying organisms." (Mayr)

Coined by the A. P. de Candolle (botanist) in 1813 for the process of classification.

alpha taxonomy - species description, preparation of keys and diagnoses, specimen identification, cataloguing. It provides much structure (the units and names) for other branches of biology.

beta taxonomy - classification, identification of natural groups, phylogenetic reconstruction. (Rarely used term but a useful distinction.)

Systematics (Latinized Gr.):

"[The study of] the kinds and diversity of organisms and of any and all relationships among them." (Simpson)

"The study of organic diversity." (Mayr)

Classification: (1) the ordering into groups (inductive) or (2) the formal hierarchy established for a group of organisms.

Identification: the naming or (deductive) fitting of organisms into pre-arranged groupings.

Nomenclature: the system of distinctive names assigned to each organism or biological entity.

Taxon (Taxa): any named or namable entity (e.g., subspecies, species, genus, family, etc.).

Category: any of the levels in a taxonomic hierarchy.