Binomial Nomenclature

1. Introduction

Binomial Nomenclature is the scientific system of naming living organisms using two names - a method developed to avoid confusion caused by common names.

It was developed by Carl Linnaeus, a Swedish naturalist, in the 18th century and published in his book 'Systema Naturae' (1758).

This system gives every species a unique scientific name recognized globally.

2. Meaning of the Term

The term 'Binomial Nomenclature' means:
Bi = two
Nomial = names

Each organism's name has two parts:
1. Genus name
2. Species name

Example: Homo sapiens
- Homo = Genus
- sapiens = Species

3. Rules of Binomial Nomenclature (ICBN/ICZN)

1. Two Names Only - Each organism has two names: Genus and Species.
2. Italicized or Underlined - When printed, names are italicized; when handwritten, underlined separately.
3. Capitalization - Genus name starts with a capital letter, species with a small letter.
   Example: Mangifera indica or _Mangifera indica_
4. Same Genus, Different Species - Example: Panthera leo (Lion), Panthera tigris (Tiger).

5. Latin Language - All scientific names are in Latin (universal language of science).

4. Importance of Binomial Nomenclature

- Provides universal identification of species.
- Avoids confusion from local/common names.
- Indicates relationships among species.
- Ensures clarity and precision in communication.

5. Examples

Common Name	Scientific Name
Human	Homo sapiens
Mango	Mangifera indica
Housefly	Musca domestica
Lion	Panthera leo
Neem	Azadirachta indica
Potato	Solanum tuberosum

Summary

Binomial nomenclature is a two-word scientific naming system developed by Linnaeus, where the first word denotes the Genus and the second denotes the Species - providing a unique and universal identity for every living organism.