

## **ARTIFICIAL SYSTEM OF CLASSIFICATION:**

**ARTIFICIAL SYSTEM:** This is more or less arbitrary classification as the plants are classified merely on the basis of one or at the most a few characters, which however, do not throw any light on the plants with one another.

The various botanists who were profounder of artificial system of classification are:

1. **THEOPHRASTUS:** Theophrastus, a Greek botanist and father of botany, classified the plants into four groups on the basis of their habit: herbs, undershrubs, shrubs and trees. He was the first to propose artificial system of classification.

- His two works about plants are “Enquiry into plants” (generally known as *Historia plantarum*) and the “Causes of plants”.
- He wrote about nearly 500 different kinds of plants and he called them by the names which were in common use at that time.
- The plants were further recognized into annuals, bi-ennials and perennial. He also pointed fundamental differences between dicots and monocots and also laid foundation for the study of floral morphology.

2. **PEDANIOS DEOSCORIDES:** Described about 600 medicinal plants in book “*Materia Medica*”.

3. **ANDREA CAESALPINO:** Wrote a book, *De Plantis libri* which describes 1500 species of plants.

Besides on the basis of habitat, divided the plants into (a) woody plants and (b) herbaceous plants.

4. **GASPARD BAUHIN:** He made first attempt to use binomial system of nomenclature.

5. **JOHN RAY:** \* Produced a three volume work, *Historia Plantarum*. Some authors prefer to keep his classification under natural system as his approach was towards the natural system.

\* He classified plants into two main groups:

a) *Herbae*, with herbaceous stem.

b) *Arborae*, with woody stem.

\* He was the first to divide the *Arborae* group into dicot and monocot, on the basis of presence of two and one cotyledon respectively.

6. **CAROLUS LINNEAEUS (SWEDISH NATURALIST- 1707 TO 1778):**

- Father of modern botany, his famous publications are:
  - a) *Philosophia Botanica*- 1751
  - b) *Genera Plantarum*- 1737

- c) **Species Plantarum- 1753**{A total of 7300 species (all species known at that time) were described}.
- His artificial system of classification was based exclusively on floral characters, the stamens and insertion of floral parts, hypogyny, perigyny, epigyny being given particular importance. It was called sexual system or numerical system of classification.

Classification consisted of 24 classes, in 23 classes were of flowering plants (phanerogamia) and 24<sup>th</sup> class have flowerless plants (cryptogamia). These are as follows:

- a. **Monoandria (stamen=1)**
- b. **Diandria (stamen=2)**
- c. **Triandria (stamen=3)**
- d. **Tetrandria (stamen=4)**
- e. **Pentandria (stamen=5)**
- f. **Hexandria (stamen=6)**
- g. **Heptandria (stamen=7)**
- h. **Octandria (stamen=8)**
- i. **Enneandria (stamen=9)**
- j. **Decandria (stamen=10)**
- k. **Dodecandria (stamen=11-19)**
- l. **Icosandria (stamen=20 or more attached to calyx)**
- m. **Polyandria (stamens=20 or more attached to receptacle)**
- n. **Didynamia (stamens didynamous)**
- o. **Tetradynemia (stamens tetradynamous)**
- p. **Monadelphina (stamens monadelphous)**
- q. **Diadelphia (stamens diadelphous)**
- r. **Polyadephia (stamens polyadelphous)**
- s. **Syngenesia (stamens syngenesious)**
- t. **Gynandria (stamens-to the gynoecium)**

**u. Monoecia (plant monoecious)**

**v. Dioecia (plant dioecious)**

**w. Polygamia (plant polygamous)**

**X. Cryptogamia (flowers concealed in algae, fungi, mosses, ferns).**

**DRAWBACKS OF ARTIFICIAL SYSTEM:**

- I. It was based on one or few characters; hence the diverse plants were placed into limited number of groups.**
- II. Natural affinities and phylogenetic relationships.**