

Topic 07 – History of Plant Systematics & Classification  
Fall 2008 – Dr. Hardy

I. The early days.

- A. Folk taxonomy.
- B. Theophrastus (ca. 371-286 BC).

II. Herbalists.

- A. Herbals.
- B. Doctrine of Signatures.
- C. Dioscorides (1<sup>st</sup> C. AD). *De Materia Medica*.
- D. Others (15<sup>th</sup>-17<sup>th</sup> C. AD).
- E. The Badianus Manuscript (1552).

III. Early Pre-Linnaean Taxonomists.

- A. Caesalpino (1519-1603). *De Plantis Libri*.
- B. de Tournefort (1656-1708). *Institutiones Rei Herbariae*.
- C. Ray (1628-1705). *Synopsis Methodica Stirpium Britannicarum & Historia Plantarum*.

IV. Linnaeus.

- A. Carl von Linné (a.k.a. Carolus Linnaeus; 1707-1778). *Species Plantarum* (1753).

V. The French and their ‘natural’ systems.

- A. Adanson (1727-1806). *Familles des Plantes*.
- B. de Jussieu (1748-1836). *Genera Plantarum*.
- C. Lamarck (1744-1829). *Flora Francoise*.
- D. de Candolle (1778-1841). *Prodromus Systematis*.

VI. Evolutionary taxonomy.

- A. Darwin (1809-1882). *On the Origin of Species by Means of Natural Selection* (1859).
- B. Engler (1844-1930) and Prantl (1849-1893). *Die Natürlichen Pflanzenfamilien*.
- C. Bessey (1845-1915). Bessey’s Dicta. *The Phylogenetic Taxonomy of Flowering Plants*.
- D. Takhtajan (1910-). *Diversity and Classification of Flowering Plants* (1997).
- E. Cronquist (1919-1991). *An integrated system of classification of flowering plants* (1981, 1988).

VII. Phenetics.

- A. Michel Adanson (1750s).
- B. Sneath & Sokal (1950s-1970s).  
Sneath & Sokal. 1973. *Numerical Taxonomy: The Principles and Practice of Numerical Classification*.
- C. Phenetics Defined.
- D. Pros & Cons.

VIII. Cladistics.

- A. Willi Hennig (1913-1976)  
*Grundzüge einer Theorie der Phylogenetischen Systematik* (Hennig, 1950).  
*Phylogenetic Systematics* (Hennig, 1966).
- B. Hennigian Principles.

\*\*\*\*\*

Readings for this topic:

*Artificial and Phenetic Systems of Classification*. Pp. 461-467,  
*Traditional Phylogenetic Classification*. Pp. 469-485, and  
*Cladistic classification systems*. Pp. 489-503,

all in Vascular Plant Taxonomy, 4<sup>th</sup> ed. Walters, DR, and Keil, DJ. Kendall/Hunt  
Publishing Co., Dubuque, Iowa.