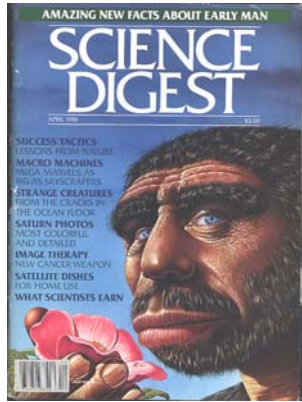
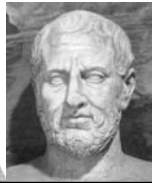


L The Early Days
A. Folk Taxonomy





Theophrastus
(ca. 371-286 BC)



Theophrastus
(ca. 371-286 BC)



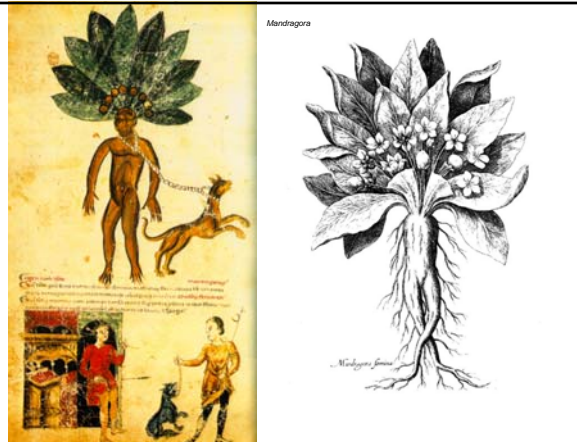
Herbalists
Herbals



II. Herbalists
B. Doctrine of
Signatures



Mandragora

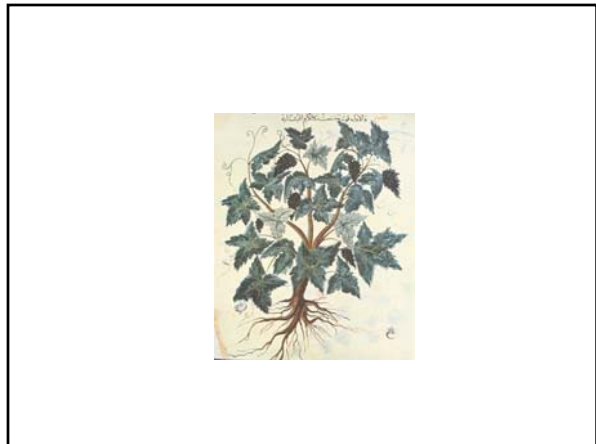


II. Herbalists

C. Dioscorides (1st Cent. AD)
De Materia Medica



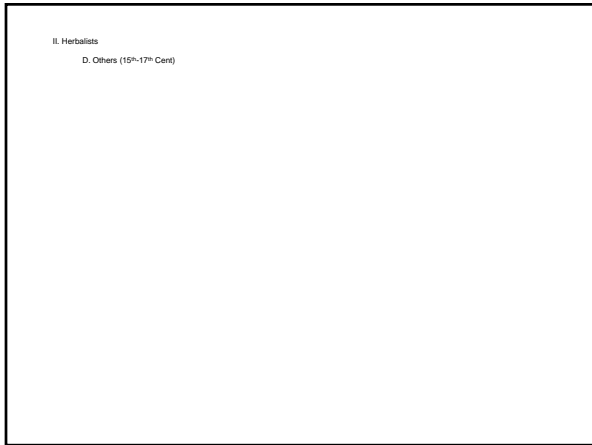






Dill (anti-gas, indigestion soother)

Cumin (parasites)





II. Herbalists
E. The Badianus Manuscript



Badianus Manuscript
(1552, rediscovered in 1929)

(Mixture including *Pinus* sp.)

For lightning strike.

-Drink made from lvs of a pine and other species.

II. Herbalists
E. The Badianus Manuscript



Badianus Manuscript
(1552, rediscovered in 1929)

(thistle, pepper)

For "Black Blood" (depression).

-Grind, cook in water. Add pearl, wolf's liver and wine. Drink. Dance.

II. Herbalists
E. The Badianus Manuscript



Badianus Manuscript
(1552, rediscovered in 1929)

(*Urtica chichicaztli*; water-nettle)

For nose bleeds (Atzitzicaztli)

-Grind juice w/ salt in urine, milk.
-Pour into nose to stop flow of blood.

III. Early Taxonomy (pre-Linnaean)

A. Caesalpino



Caesalpino (1519-1603)

De Plantis Libri

III. Early Taxonomy (pre-Linnaean)

B. Tournefort



Tournefort (1656-1708)

Institutiones Rei Herbariae

III. Early Taxonomy (pre-Linnaean)

C. Ray

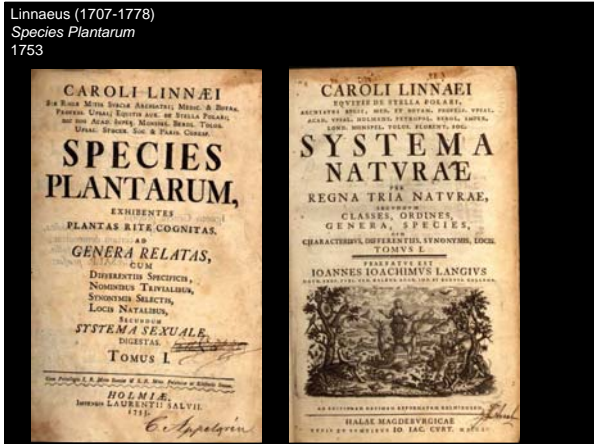


Ray (1628-1705)

*Historia Plantarum
&
Synopsis Methodica
Stirpium Britannicarum*









The Species Plantarum Project (SPP)

The *Species Plantarum Project* is a longer term project aiming to record essential taxonomic information on vascular plants on a world basis. It may be likened to a World Flora. It is expected that it will include accepted names and synonyms with places of publication and types, short descriptions of all taxa from family to infraspecific rank, keys, distributions, references to literature comments, etc. It will be linked to the [Global Plant Checklist](#).

The parameters, details and modus operandi are being discussed by an international steering committee, and further announcements will be made in due course.

Contact the co-ordinator, [Dick Brummitt](#), for further information.

International Organization for Plant Information (IOPJ). Authorized WWW server Species Plantarum page. K. Wilson (editor). Last modified: 1 April 1997.

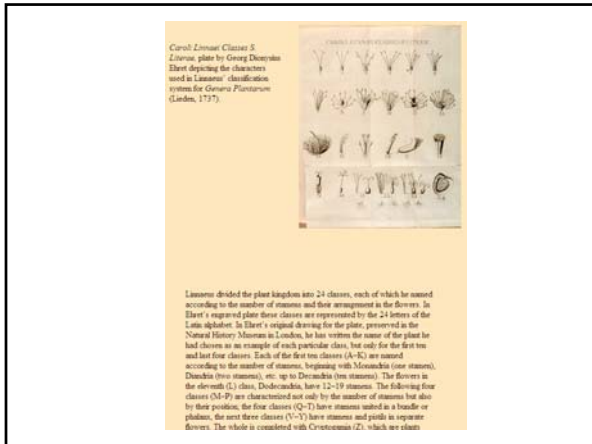
CAROLI LINNAEI		REGNUM ANIMALE			
I	II	III	IV	V	VI
1. EQUUS	2. BOVIS	3. OVIS	4. CAPRA	5. CAMELOS	6. ANTELOPI
...

Linnaeus: *Species Plantarum* (1753)

Class V. Pentandria.
Flowers with 5 stamens

Order Monogynia
...with 1 pistil

Polynomial. He sticks a "specific epithet" for ease of use.





- Linnaeus (1729)

The flowers' leaves. . . serve as bridal beds which the Creator has so gloriously arranged, adorned with such noble bed curtains, and perfumed with so many soft scents that the bridegroom with his bride might there celebrate their nuptials with so much the greater solemnity. . .

One of many of Linnaeus's critics:
Johann Georg Siegesbeck (1686-1755), botanical garden in St. Petersburg

Objections seemed to have been two-fold:

1. Artificial.
2. Sexual System and his metaphors:
e.g., Class Pentandria and order Monogynia was described as "5 husbands in the same marriage"

Siegesbeck wrote that such
"loathsome harlotry as several males with one female would not be permitted in the vegetable kingdom by the Creator!"

Also:
"Who would have thought that bluebells and lilies and onions could be up to such immorality?
How could so licentious a method be taught to the young without offense?"

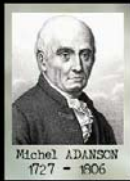
One of many of Linnaeus's critics:
Johann Georg Siegesbeck (1686-1755), botanical garden in St. Petersburg

In response Linnaeus
named a foul-smelling weed
after one of his more vocal
critics. He called it
Siegesbeckia.



Source of photo: Cyber Herb
Medicine Simulation Room

V. The French
A. Adanson



Adanson (1727-1806)
Familles des Plantes



Baobab *Adansonia*

V. The French
B. De Jussieu

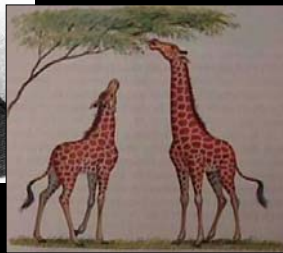


de Jussieu (1748-1836)
Genera Plantarum

V. The French
C. Lamarck



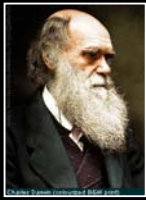
Lamarck (1744-1829)
Flora Francoise



V. The French
D. De Candolle



VI. Evolutionary Taxonomy
A. Darwin



Darwin (1809-1882)
Origin of Species 1859



VI. Evolutionary Taxonomy

B. Engler (1844-1930): *Die Natürlichen Pflanzenfamilien*

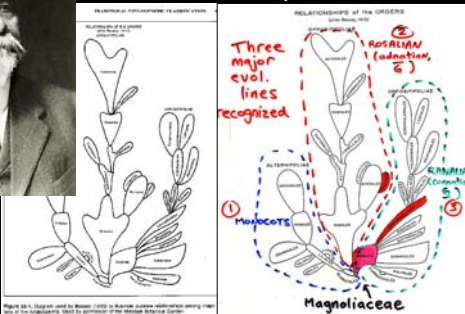


Adolf Engler, 1883, Photographer
(Author: BÖHM)





Bessey (1845-1915)
"Bessey's Dicta"





Takhtajan (1910-)

Diversification & Classification of Flowering Plants (1997)



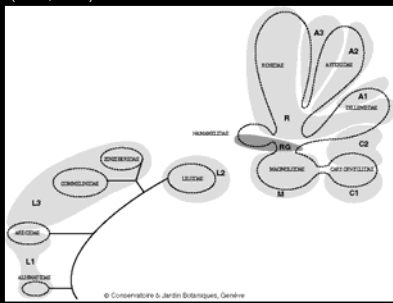
Cronquist (1919-1992)

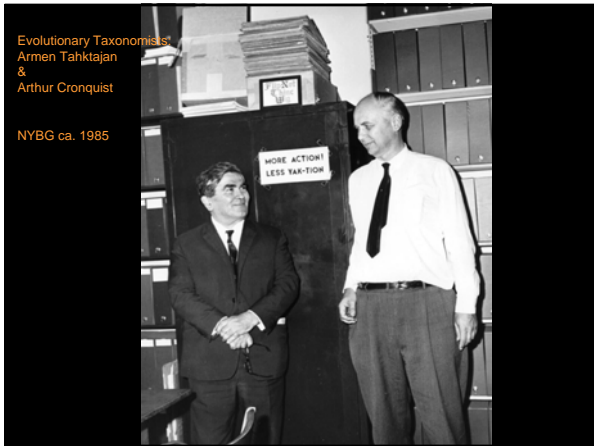
An Integrated System of Classification of Flowering Plants (1981, 1988)



Cronquist (1919-1992)

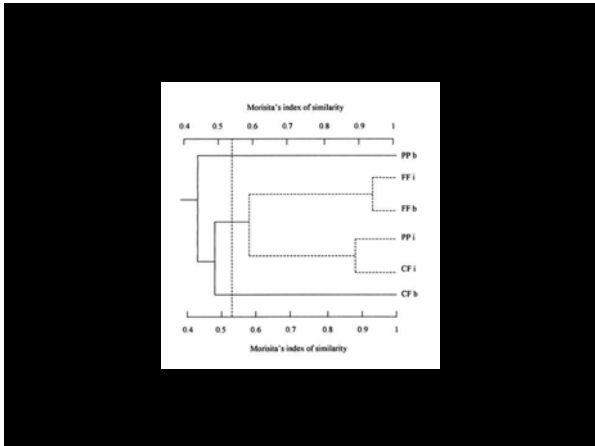
An Integrated System of Classification of Flowering Plants (1981, 1988)





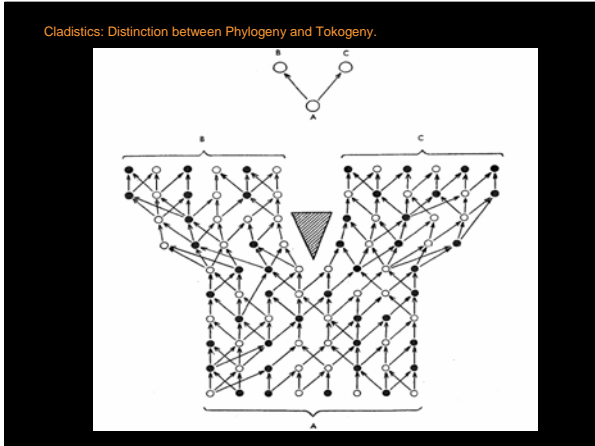
Evolutionary Taxonomists:
Armen Takhtajan
&
Arthur Cronquist

NYBG ca. 1985



Cladistics: Willi Hennig (German; 1913-1976)

Grundzüge einer Theorie der Phylogenetischen Systematik (Hennig, 1950).
Phylogenetic Systematics (Hennig, 1966)



How to infer a phylogeny
Or
How to build a cladogram:
Synapomorphies

Snail
Hagfish
Perch
Salamander
Lizard
Mouse
Chimp
Human

Taxon	antennae	eyes	cold	blood	teeth	lungs	limbs	amniotic	hair	placenta	teats	claws	tail	vestibular
perch	no	no	yes	cold	no	no	no	no	no	no	no	no	no	yes
codicarth	no	no	yes	cold	yes	yes	no	no	no	no	no	no	no	yes
salamander	no	yes	no	cold	yes	yes	no	no	no	no	yes	no	no	yes
frog	no	yes	no	cold	yes	yes	no	no	no	no	yes	no	no	yes
turtle	yes	yes	yes	cold	yes	yes	no	no	no	no	no	no	no	yes
man	yes	yes	no	warm	yes	yes	no	no	no	no	no	no	no	yes
gecko	yes	yes	yes	cold	yes	yes	yes	yes	no	no	no	no	no	yes
snake	yes	yes	yes	cold	yes	yes	yes	yes	no	no	no	no	no	yes
alligator	yes	yes	yes	cold	yes	yes	yes	no	yes	no	no	no	no	yes
badgy	yes	yes	no	warm	yes	yes	yes	no	yes	no	yes	no	yes	yes

The preceding matrix, again, can be represented numerically (for convenience) as:

perch	0	0	0	0	0	0	0	0	0	0	0	0	0	0
codicarth	0	0	0	0	1	1	0	0	0	0	0	0	0	0
salamander	0	1	1	0	0	0	1	0	0	0	0	0	0	0
frog	0	1	1	0	0	0	1	0	0	0	0	0	0	0
turtle	1	1	0	1	0	0	0	0	0	0	0	0	0	0
man	1	1	1	1	0	0	0	0	0	0	0	0	0	0
gecko	1	1	0	1	1	1	0	0	0	0	0	0	0	0
snake	1	1	0	1	1	1	0	0	0	0	0	0	0	0
alligator	1	1	0	1	1	1	0	0	0	0	0	0	0	0
badgy	1	1	1	1	0	1	1	0	1	1	0	1	1	0

<http://research.amnh.org/~siddall/methods/day2.html>

Snail
Hagfish
Perch
Salamander
Lizard
Mouse
Chimp
Human

Evidences for relationships? Shared derived character states.

