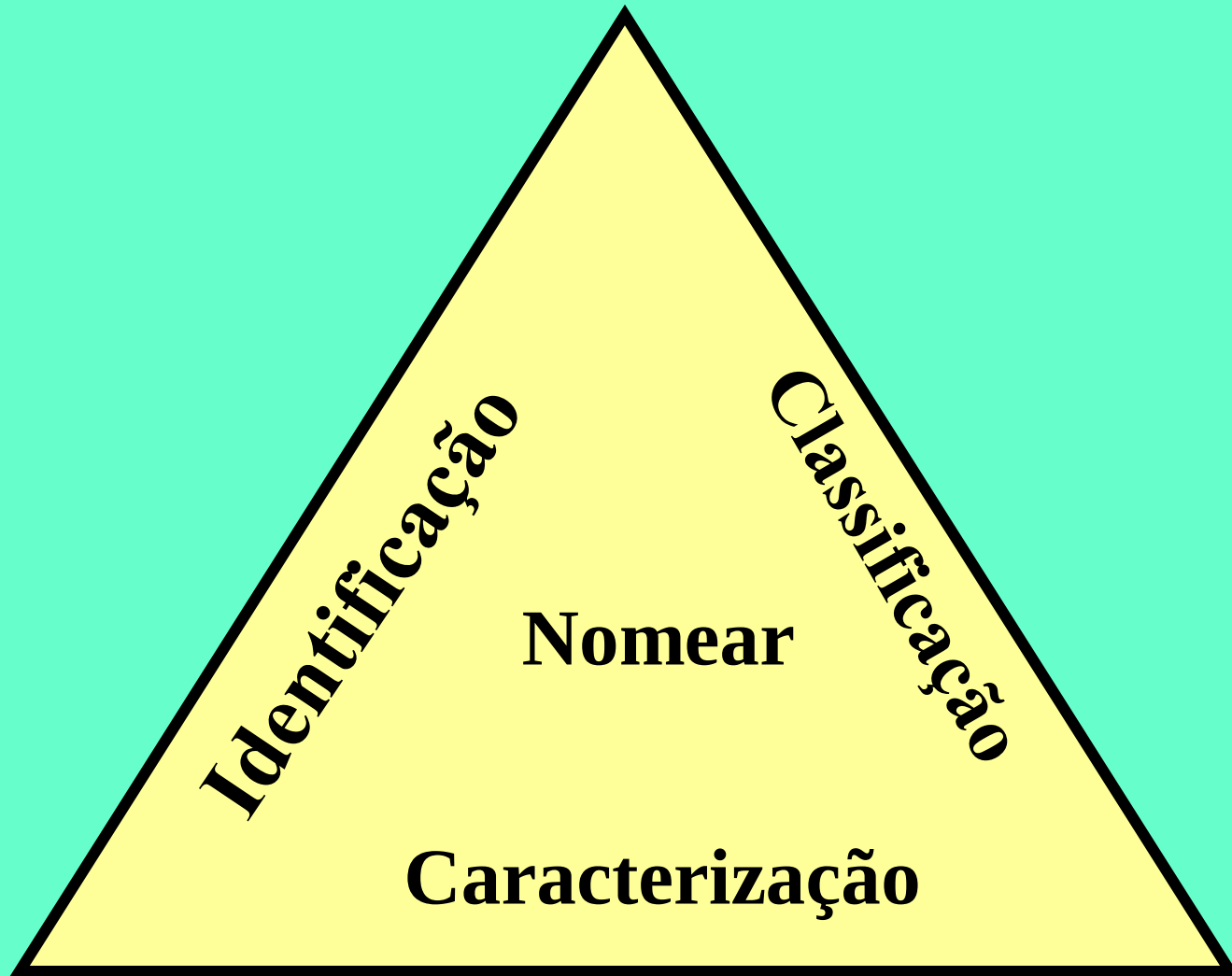


# Taxonomia Vegetal

**Estudo do fenótipo, genótipo e  
das relações filogenéticas entre os táxons  
(Radford 1986)**

**A taxonomia está fundamentada na proposição de que existe uma diversidade biológica mundial e que suas unidades podem ser identificadas, classificadas, nomeadas (e descritas) e logicamente relacionadas num sistema evolutivo.**



Radford 1986

Classificar = dispor em  
determinada ordem

Ordem = evolutiva = filogenética



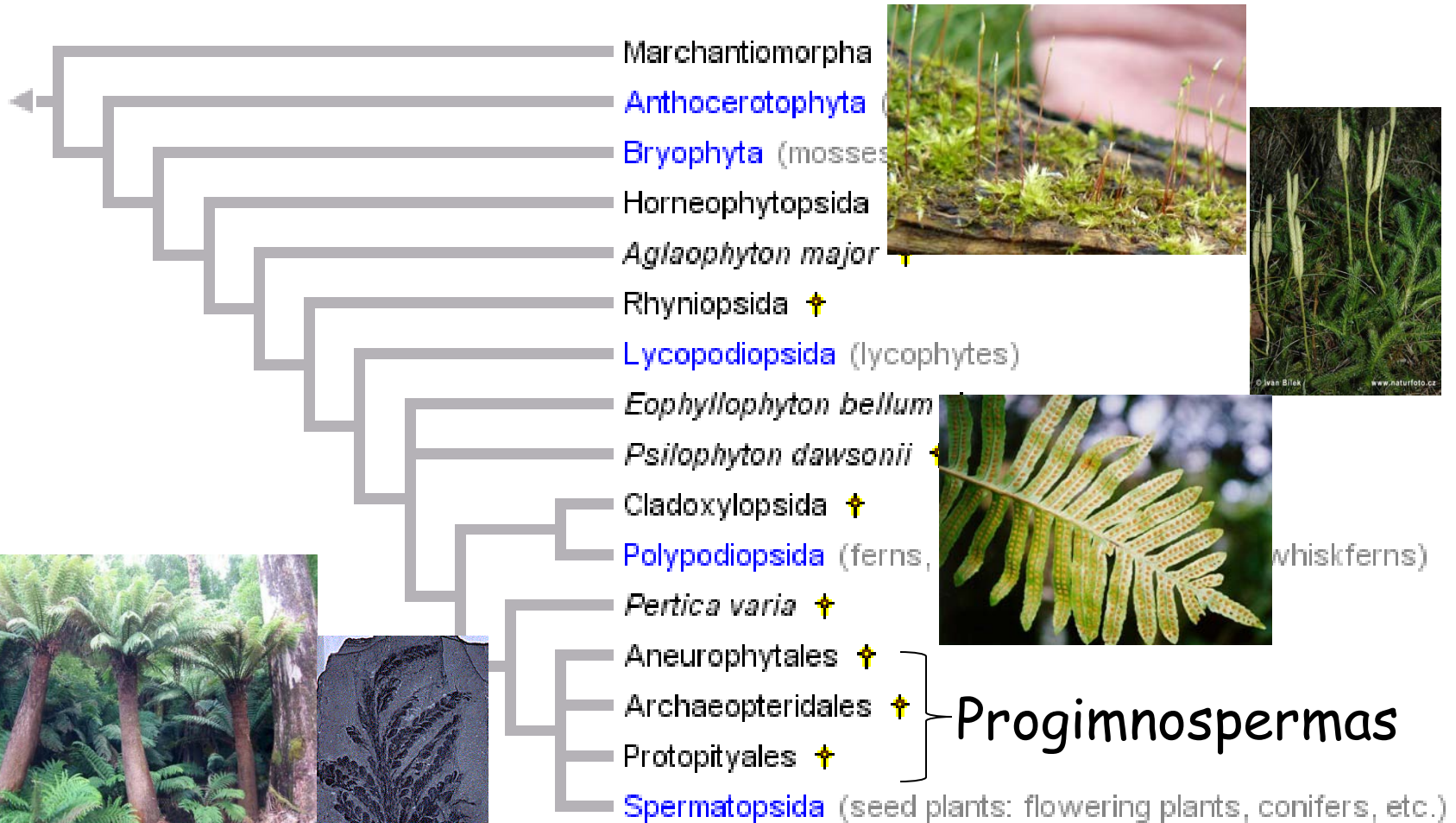
Sistemas de Classificação  
Filogenéticos em  
Spermatophyta

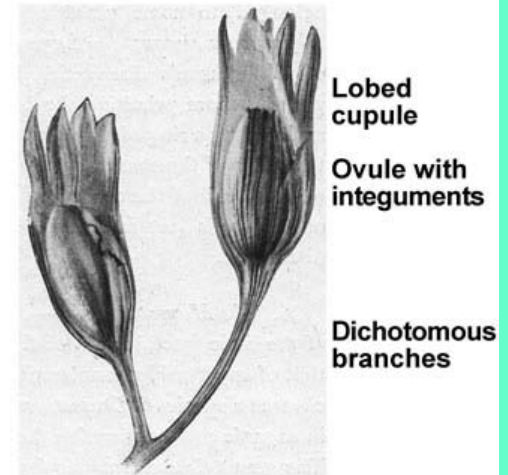
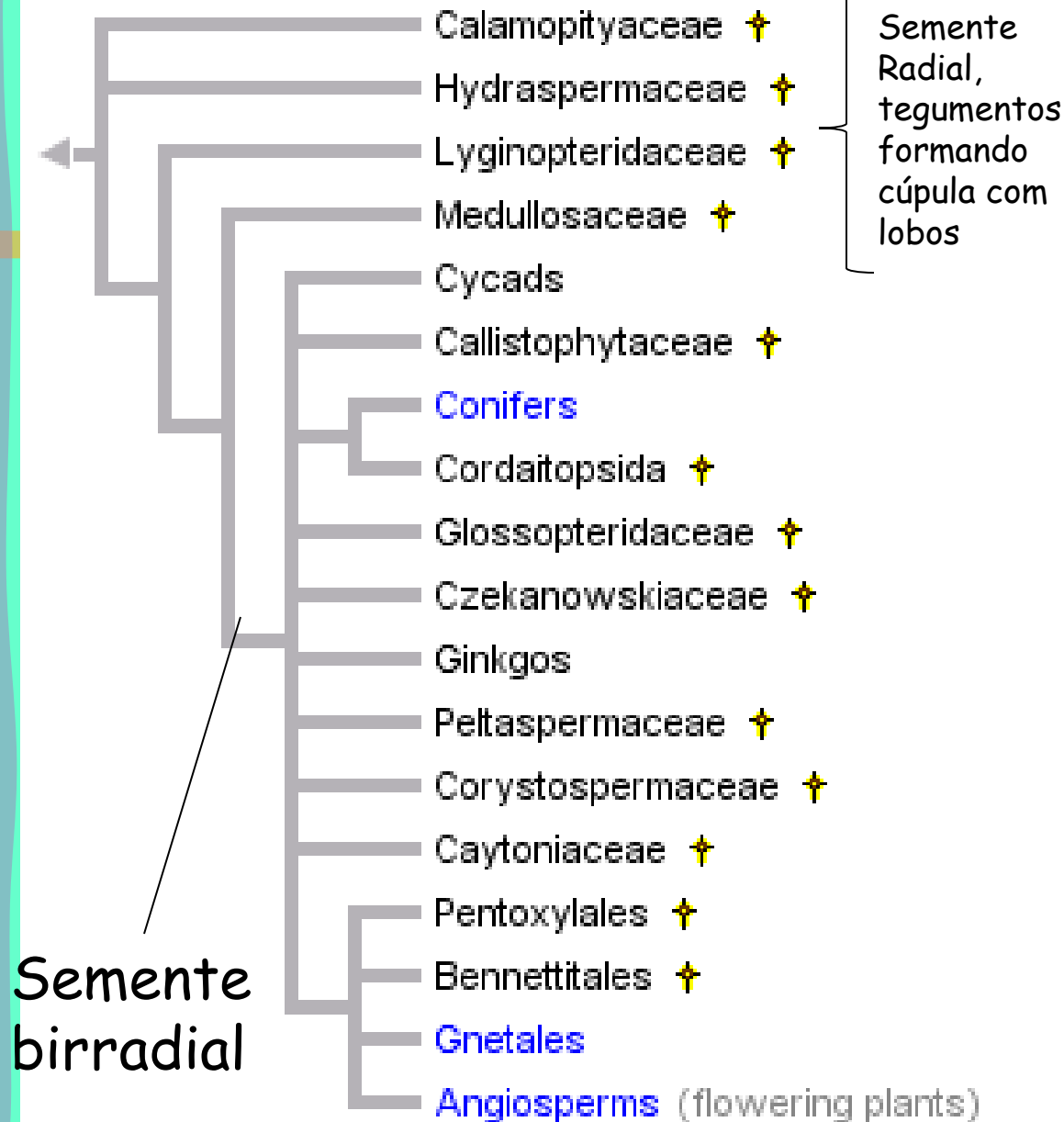
# Filogenia de Spermatophyta

Cladograma baseado em dados combinados

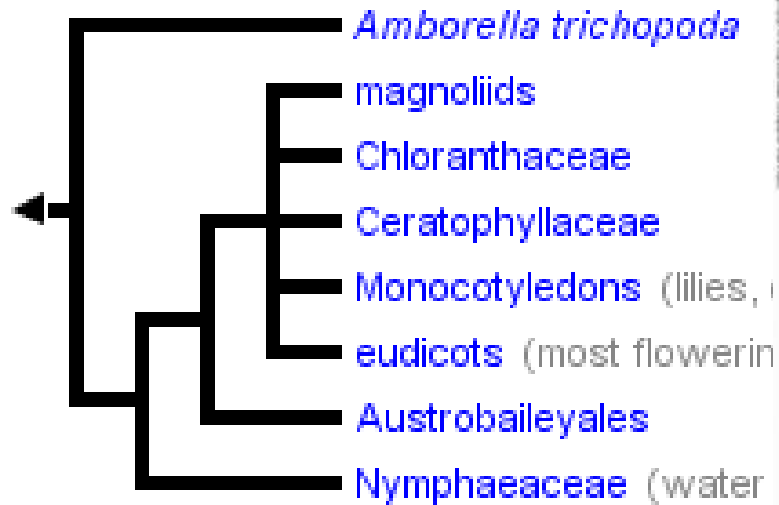
**Embryophytes. Land Plants. 2009.** Paul Kenrick and Peter Crane

<http://www.tolweb.org/Embryophytes/20582>





Late Devonian Lyginopterid-type seed fern ovules (*Lagenostoma*)  
After Arber, from Scott (1909)  
Studies in Fossil Botany, Vol. II, Adam and Charles Black, London



# Engler (1892)

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Divisão: **Angiospermae**

Classes: **Monocotiledôneas e Dicotiledôneas**

Dicotiledôneas (subclasses):

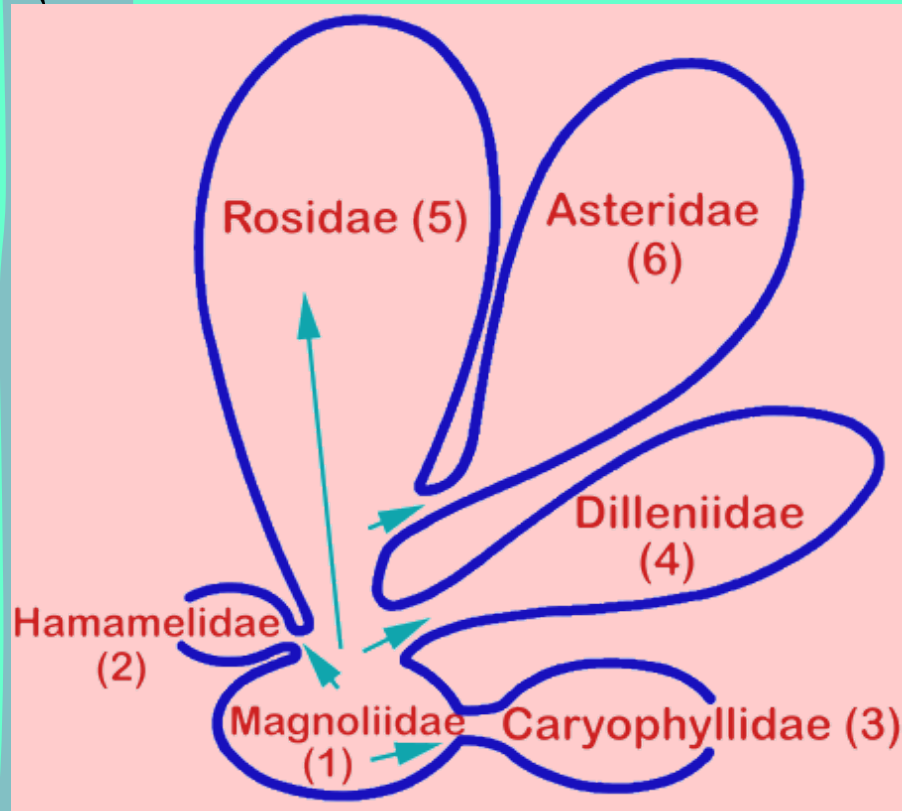
**Archyclamidaeae**: plantas com flores aclamídeas, monoclamídeas ou diclamídeas dialipétalas;

**Sympetalae ou Metaclamídeas**: plantas com flores  
Diclamídeas gamopétalas

# Cronquist 1988

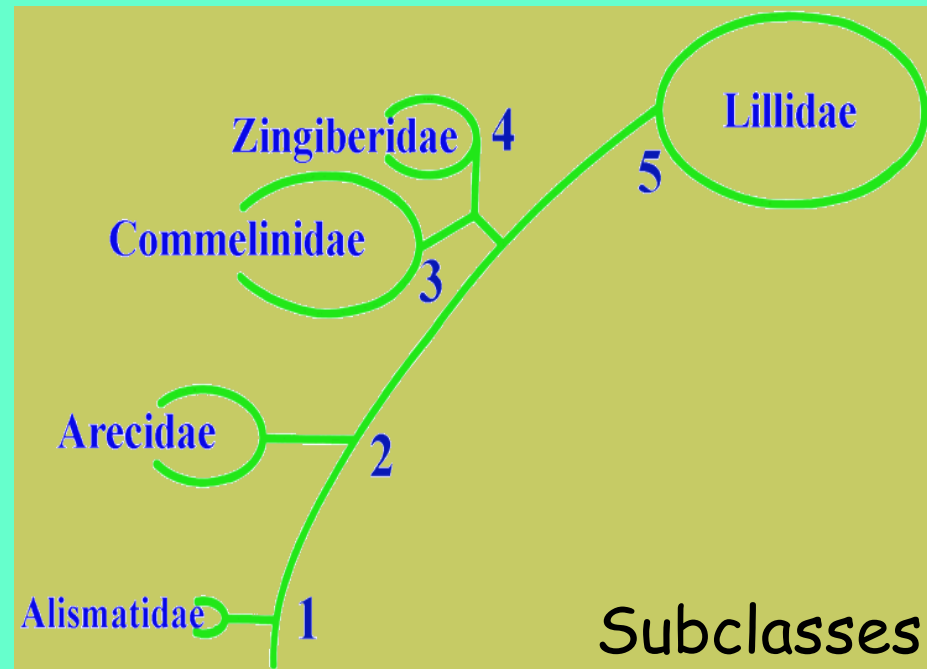
Divisão: Magnoliophyta

Classe: Magnoliopsida = Dicots



Subclasses

Classe: Liliopsida = Monocots



Subclasses

# APG (1998, 2003)

Amborella trichopoda

Soltis, Soltis, Edward 2005

magnoliids

**Grupo Magnolídeo**

Chloranthaceae

Ceratophyllaceae

Monocotyledons (lilies, orchids, palms, grasses, and their relatives)

eudicots (most flowering plants)

Austrobaileyales

Nymphaeaceae (water lilies and their relatives)

**Angiospermas basais**

# Tree of life web project

[<http://tolweb.org/tree/>]





Relationships after Qiu et al. (1999, 2000), P. Soltis et al. (1999), D. E. Soltis et al. (2000), Zanis et al. (2002) and Hilu et al. (2003).

http://www.mobot.org/MOBOT/Research/APweb/welcome.html

Angiosperm Phylogeny Website - Windows Internet Explorer

http://www.mobot.org/MOBOT/Research/APweb/welcome.html

Google

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Angiosperm Phylogeny Website

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Click here for Abbreviations

Angiosperms  
Embryophytes  
Ferns s.l.  
Gymnosperms  
Seed Plants

Acorales  
Alismatales  
Amborellales  
Apiales  
Aquifoliales  
Arecales  
Asparagales  
Asterales  
Austrobaileyales  
Berberidopsidales  
Brassicales  
Buxales  
Canellales  
Caryophyllales  
Celastrales  
Ceratophyllales  
Chloranthales  
Commelinales  
Cornales  
Crossosomatales  
Cucurbitales  
Cycadales  
Dilleniales  
Dioscoreales  
Dipsacales  
Ericales  
Fabales  
Fagales  
Garryales  
Gentianales  
Geraniales  
Ginkgoales  
Gnetales  
Gunnerales

### Links

- [Floras](#)
- [General Systematic/Taxonomic Resources](#)
- [Image Resources](#)
- [Phylogenies, etc.](#)
- [Family sites](#)

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- [Floras, arranged alphabetically by country.](#) [\[Back to Top\]](#)

Australia: West Australia [FloraBase](#).

Canada: [Flora of North America](#)

United States: [Flora of North America](#). Hawaii

[A Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands](#)

- [General Systematic/Taxonomic Resources](#) [\[Back to Top\]](#)

[DELTA Interactive Keys and Databases](#)

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Angiosperm Phylogeny Website - Windows Internet Explorer

http://www.mobot.org/MOBOT/Research/APweb/welcome.html

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Ginkgoales  
Gnetales  
Gunnerales

45/ : [Coccothrinax](#) (50). Pan tropical (to warm temperate), fewer in South America (Map: from Uhl & Dransfield 1987).

Synonymy: **Borassaceae** Schultz-Schultzenstein, **Coryphaceae** Schultz-Schultzenstein, **Phoeniciaceae** Burnett, **Sabalaceae** Schultz-Schultzenstein

**4. Ceroxyloideae** Drude

SiO<sub>2</sub> bodies ± spherical; flowers solitary along the rhachis, (K and C elongate); (seeds more than 3).

8/42. Mostly Central and W. South America, also N.E. Australia, Madagascar, Florida and the Antilles (Map: from Uhl & Dransfield 1987).

Synonymy: **Phytelephaceae** Perleb

**5. Arecoideae** Burnett

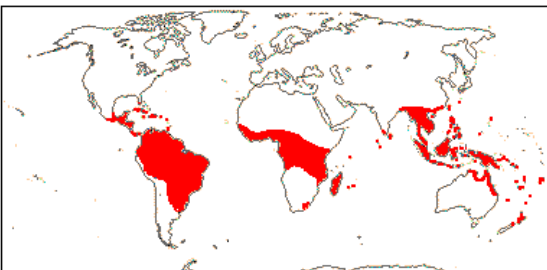
Inflorescence with prophyll and bract(s); plant usually monoecious with flowers in triads [central flower carpellate, lateral flowers staminate] or dioecious with flowers in monopodial inflorescences; (1 G fertile), styles + (style +, short or long); n = 16.

112/ : [Bactris](#) (240), [Dypsis](#) (140), [Pinanga](#) (120), [Chamaedorea](#) (110), [Geonoma](#) (75), [Desmoncus](#) (65<), [Areca](#) (60), [Astrocaryum](#) (50). Pantropical, the most diverse subfamily in South America (Map: from Uhl & Dransfield 1987).

Synonymy: **Acristaceae** O. F. Cook, **Ceroxylaceae** O. F. Cook, **Chamaedoraceae** O. F. Cook, **Cocosaceae** Schultz-Schultzenstein, **Geonomataceae** O. F. Cook, **Iriarteaceae** O. F. Cook & Doyle, **Malortieaceae** O. F. Cook, **Manicariaceae** O. F. Cook, **Pseudophoeniciaceae** O. F. Cook, **Synechanthaceae** O. F. Cook

- Arecaceae can be recognised by their woody stems, large, tough, petiolate leaves with plicate and often apparently compound blades, axillary inflorescences (but [Corypha](#), etc.!) with numerous flowers, and 1-seeded fruits. Cyclanthaceae can be similar vegetatively, but their petioles are usually less woody and the leaf never has a hastula, an adaxial flap-like structure at the apex of the petiole.





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16:10

# Chaves de identificação

Carlos Vianna Freire - Chave de identificação  
das angiospermas brasileiras

PIRANI, J.R., MELLO-SILVA. & SANO, P.T. 2001.

**Chave para identificação de Magnoliophyta (Angiospermae).**

Instituto de Biociências, USP, São Paulo.