CARACTERÍSTICAS DE LOS GRANDES GRUPOS DEL REINO PLANTAE

facultad de ciencias bioquímicas y farmacéuticas

De Kropsoq wikimedia.org

Desierto de Atacama | N de Chile

Las plantas surgen de las algas

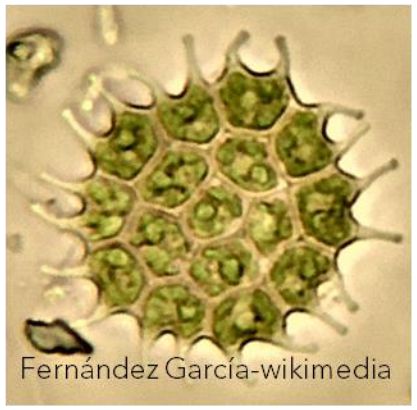
VIRIDIPLANTAE

STREPTOPHYTA

PLANTAE

Algas rojas

Clorófitas



Carofitas

Embriofitas

Alga ancestral

Aun está en discusión
los límites del Reino

Leliaert et al., 2019

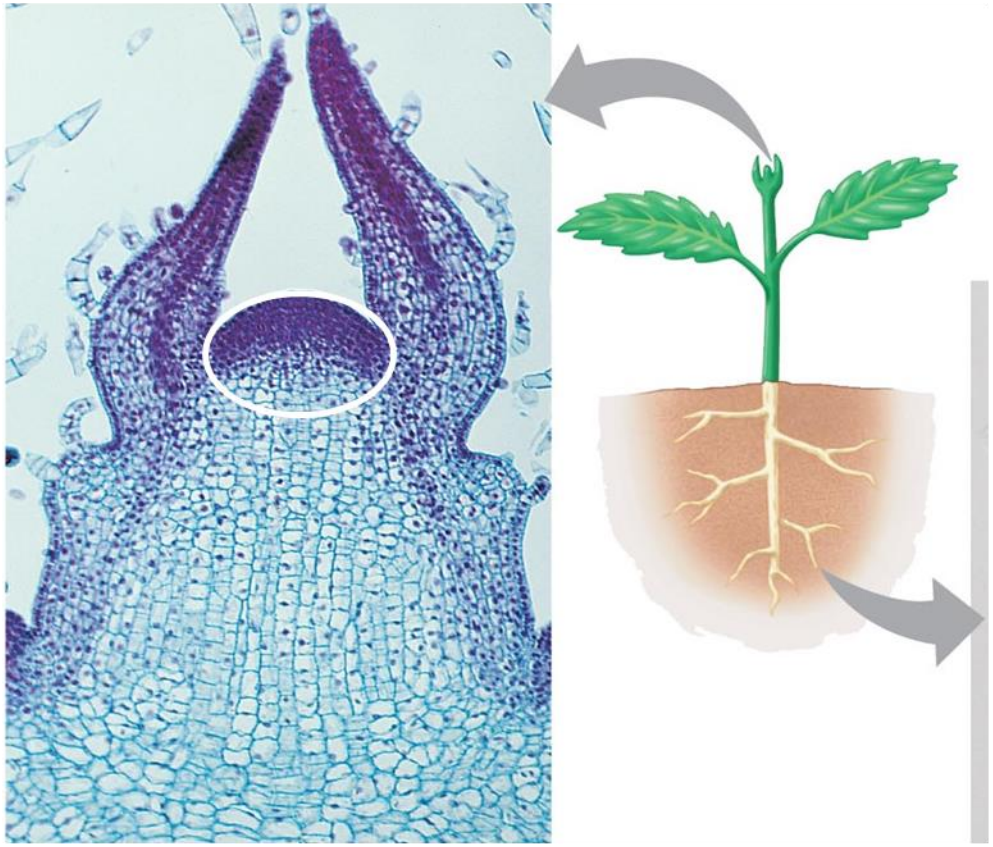
See EVOLUTION OF LAND PLANTS (UNDER CONSTRUCTION) de w3tropicos http://www.mobot.org/MOBOT/research/APweb/

EMBRIÓFITAS

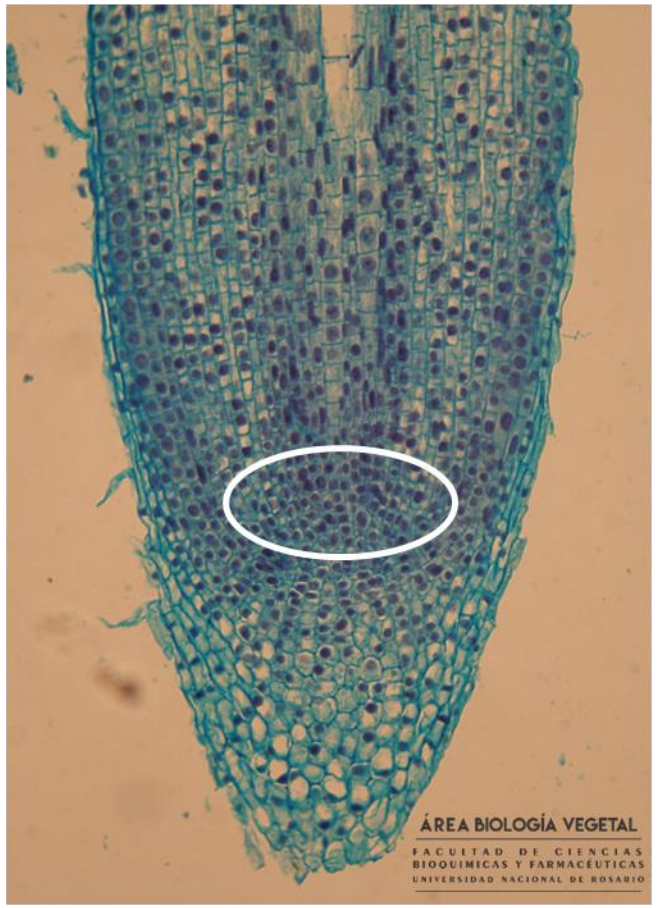
Fotos: Área Biología Vegetal

MERISTEMAS APICALES

Meristema Apical Caulinar



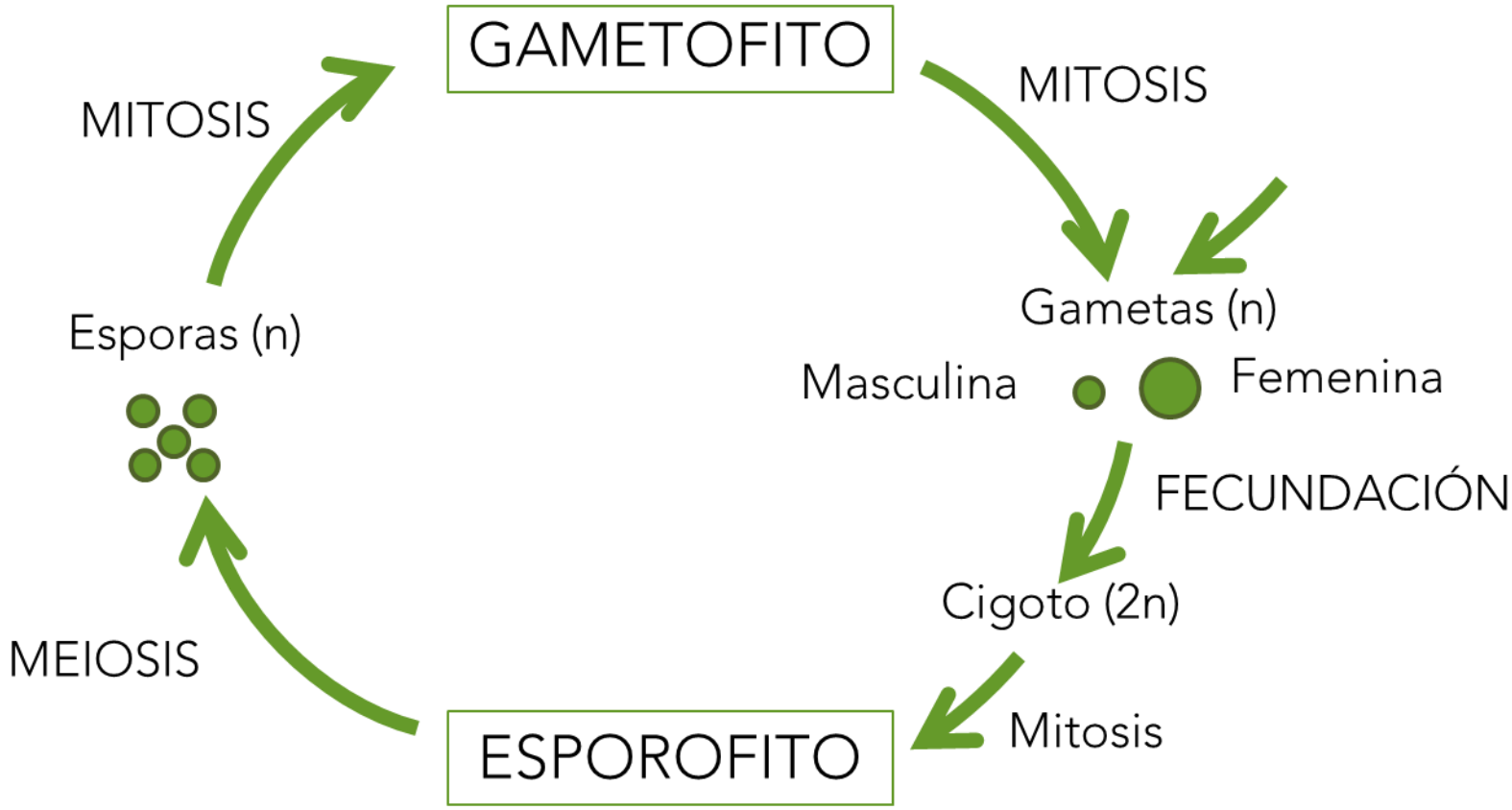
Pearson Education, Inc. Pearson Benjamin Cummings



Meristema Apical Radical

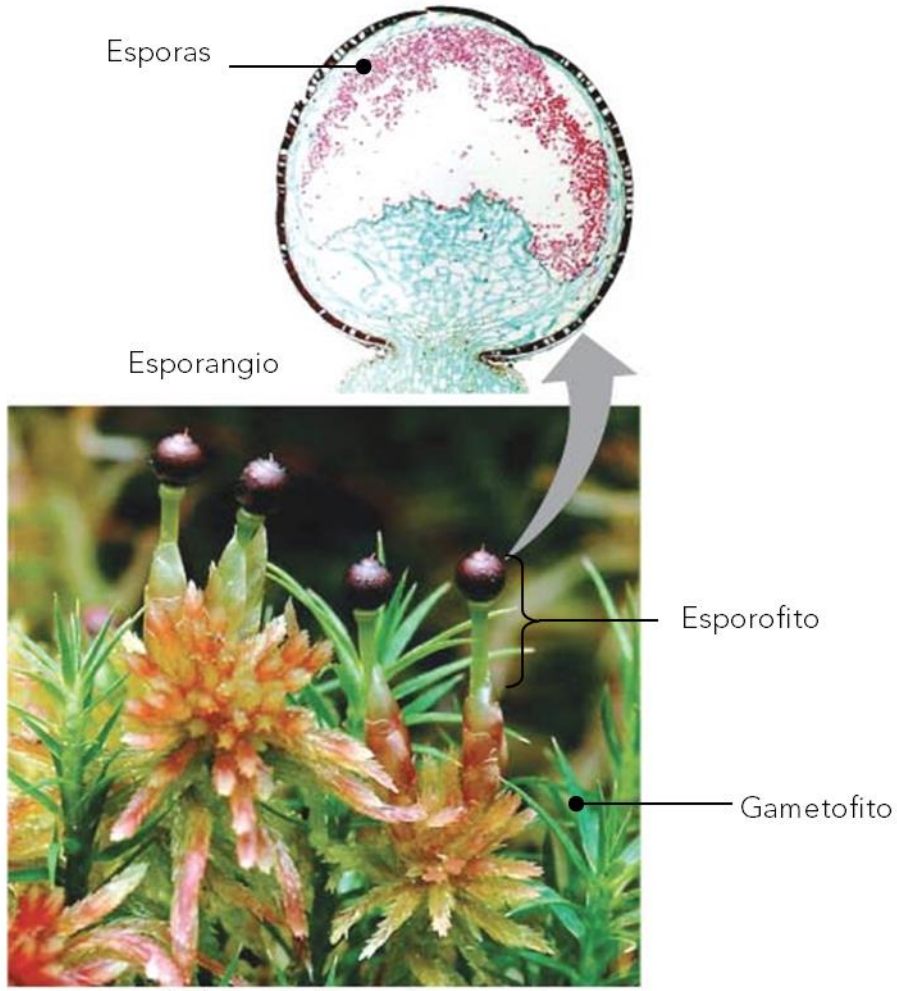
ALTERNANCIA DE GENERACIONES

Organismo Haploide multicelular



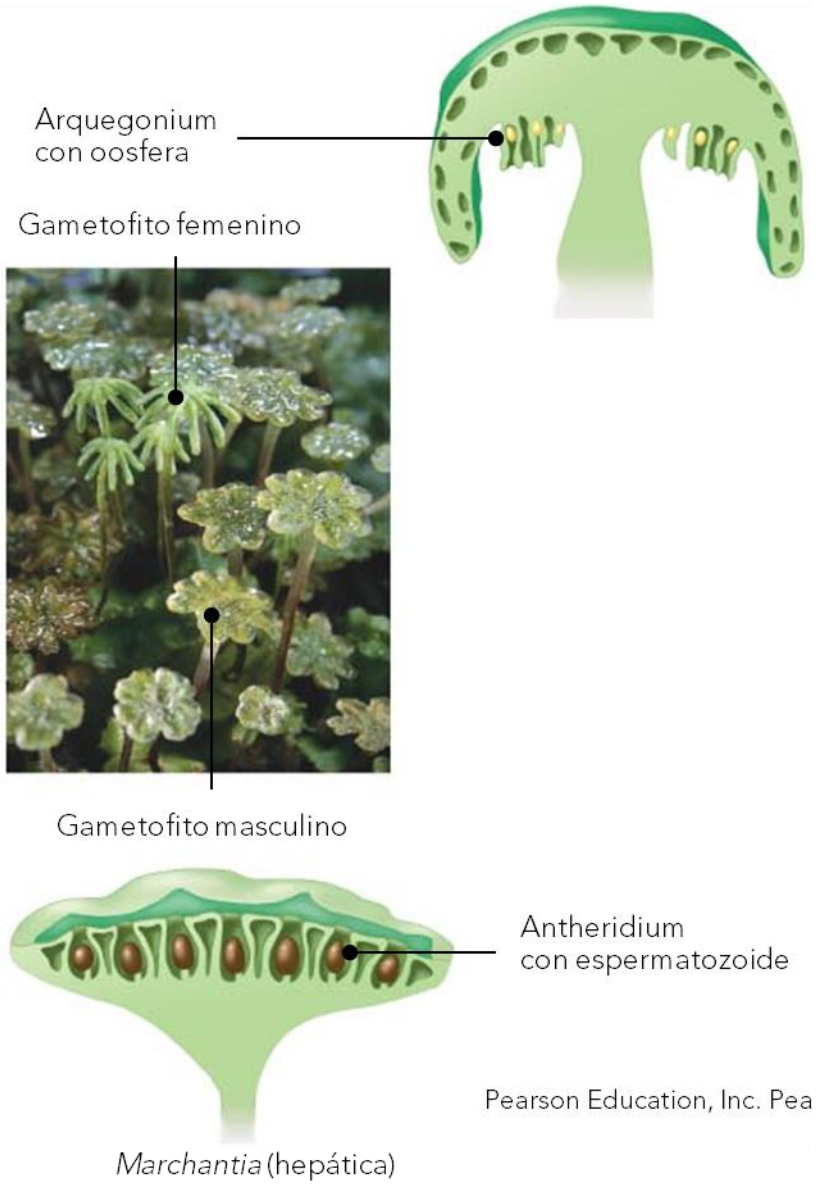
Organismo diploide multicelular

ESPORANGIOS



Sphagnum (musgo)

GAMETANGIOS



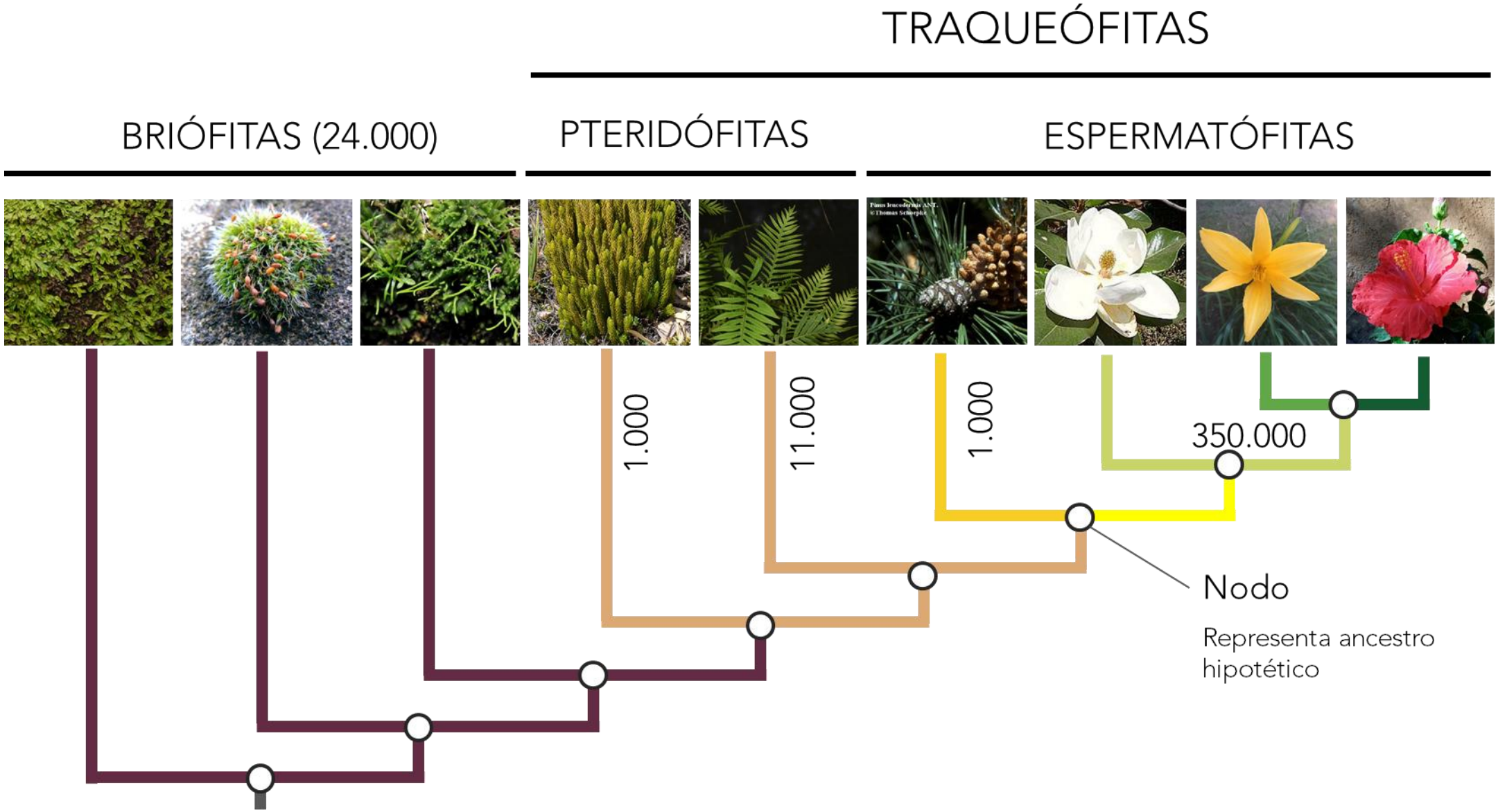
Pearson Education, Inc. Pearson Benjamin Cummings

Marchantia (hepática)

Esporofito → Esporangio → Espora

Gametofito → Gametangio → Gameta

EMBRIÓFITAS



Modificado de Zhang, Z., et al. (2022). J Integr Plant Biol.64: 516–535.

BRIOFITAS-PLANTAS "NO-VASCULARES"

Hepáticas
(~7000 – 8500 especies)

Musgos
(~10,000 – 17,000 especies)

Antoceros
(~200 especies)

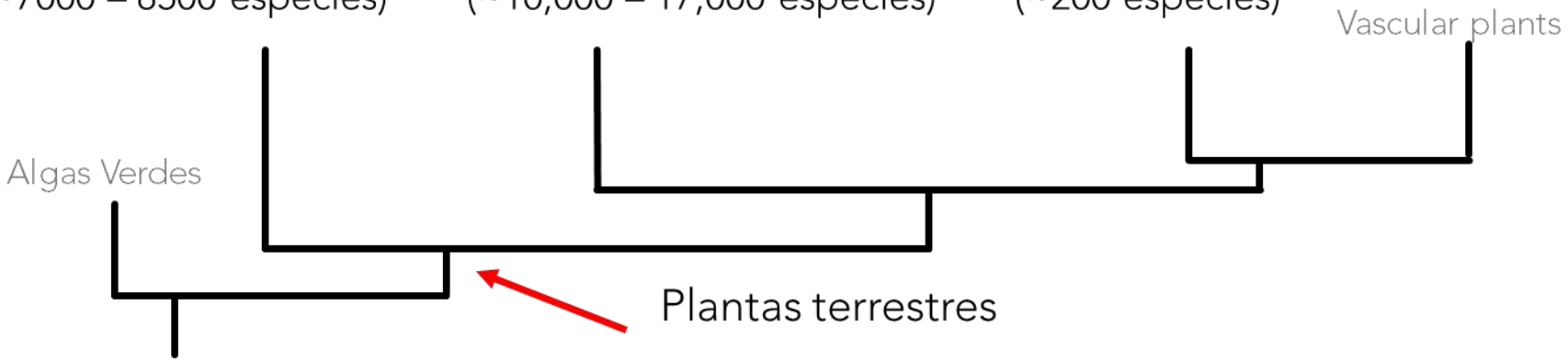


Photo credits Tom Donald, Mary Williams and gjshepherd.br

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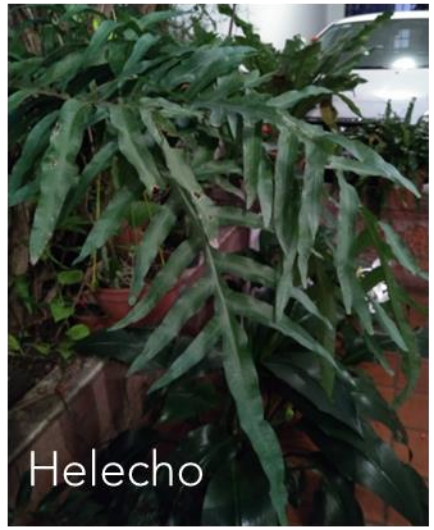
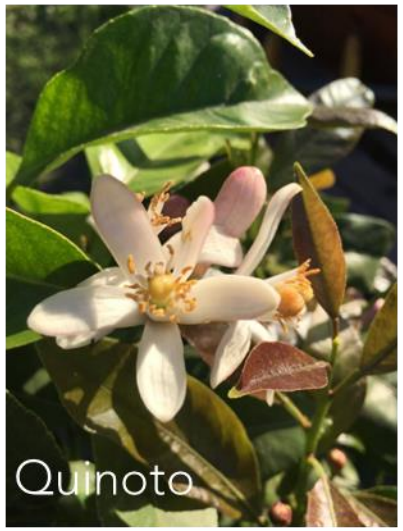
Esporofito
Gametofito

TRAQUEOFITAS-PLANTAS VASCULARES



Pteridófitas
(~ 1300 species)

Gimnospermas
(~ 1000 species)



Angiospermas
(~ 350,000 species)

Briofitas

Semillas

Tejido Vascular

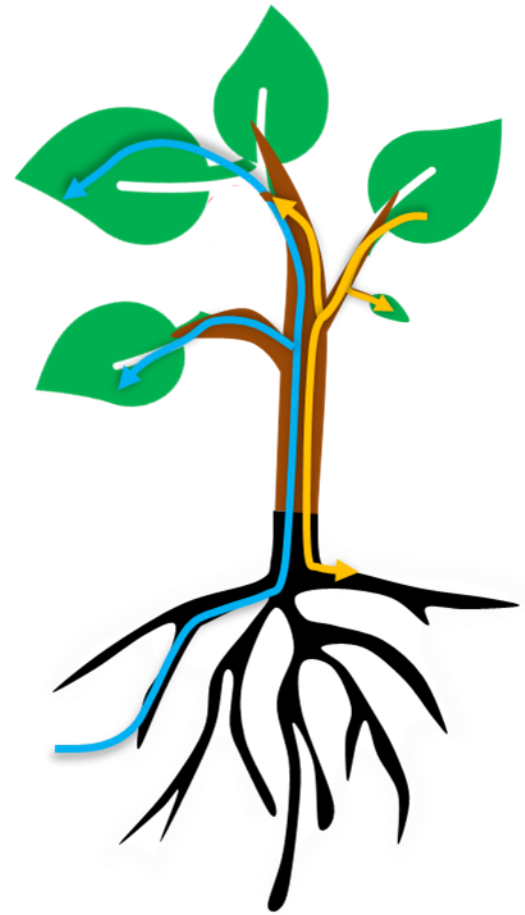
Alga ancestral

TRAQUEÓFITAS-PLANTAS VASCULARES

Las plantas vasculares tienen dos tipos de tejidos vasculares: xilema (|) y floema (|)

Evolución de las raices

Evolución de las hojas



En el envés de la hoja están los esporangios, reunidos en soros

PTERIDOFITAS- PLANTAS VASCULARES SIN SEMILLAS

Equisetum spp, Cola de caballo

Tallo vegetativo

Estrobilo en el tallo fértil

Helechos

ESPERMATÓFITAS- PLANTAS CON SEMILLAS

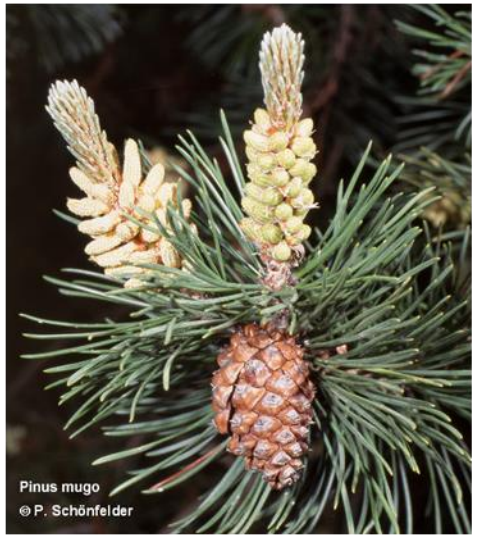
GIMNOSPERMAS

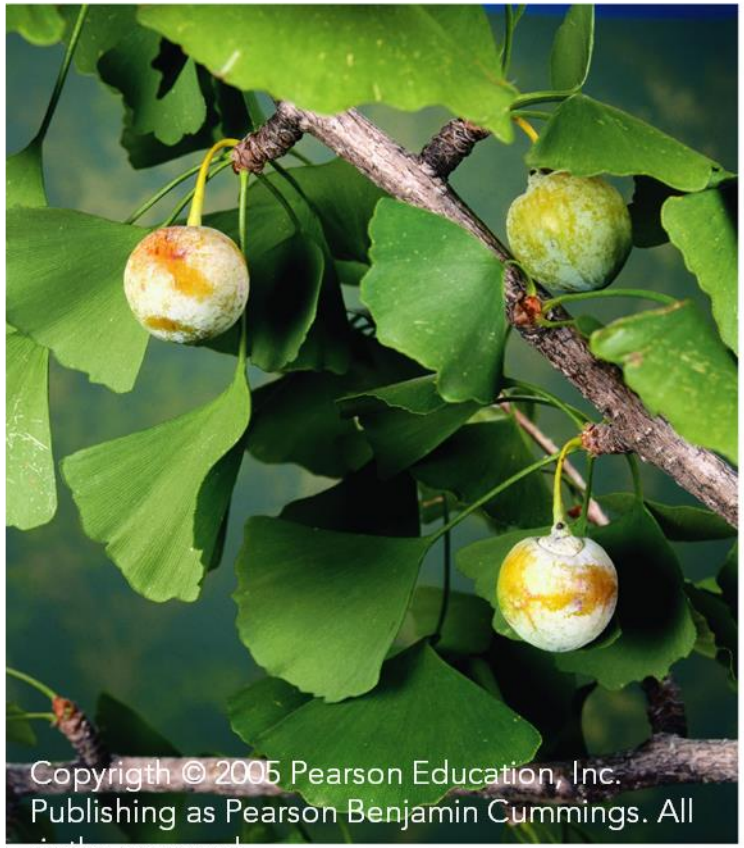
ANGIOSPERMAS

MONOCOTILEDÓNEAS

EUDICOTILEDÓNEAS

GIMNOSPERMAS

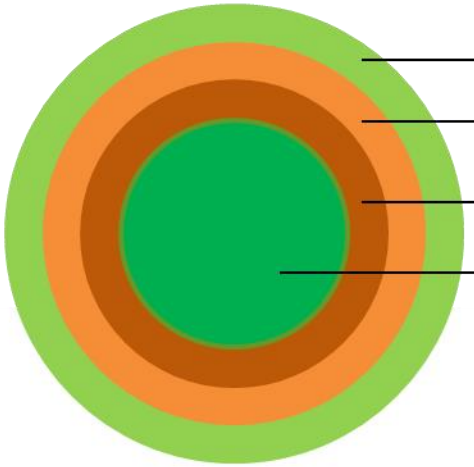




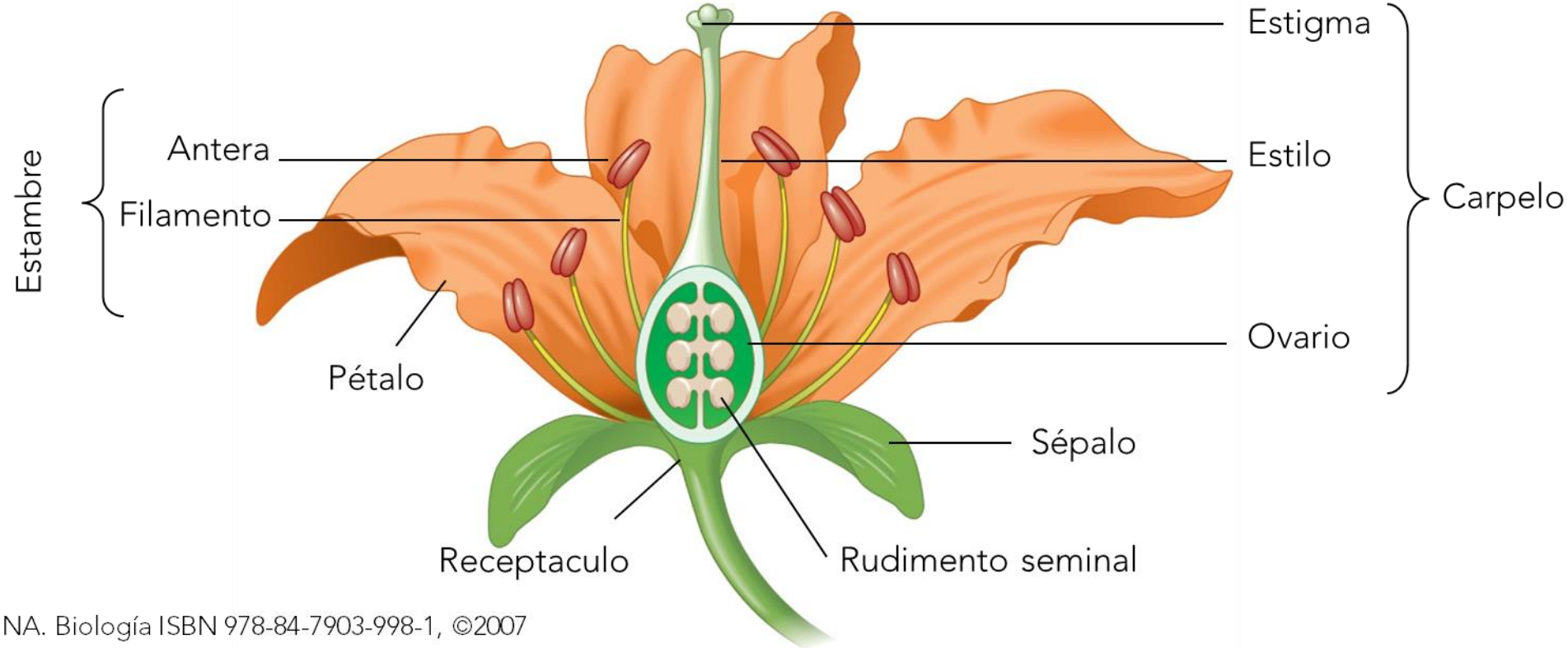
ANGIOSPERMAS

La generación dominante es el Esporofito

LA FLOR



Verticilo	Antófilo
Caliz	Sépalos
Corola	Pétalos
Androceo	Estambres
Gineceo	Carpelos



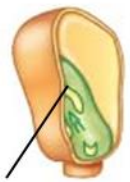
Campbell NA. Biología ISBN 978-84-7903-998-1, ©2007

FRUTOS CARNOSOS

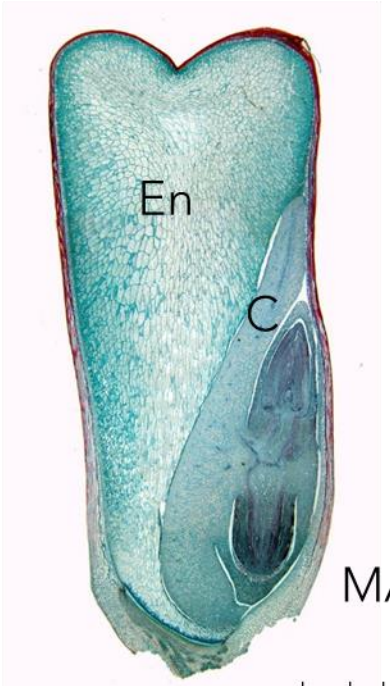
FRUTOS SECOS

EMBRIONES

MONOCOTILEDÓNEAS



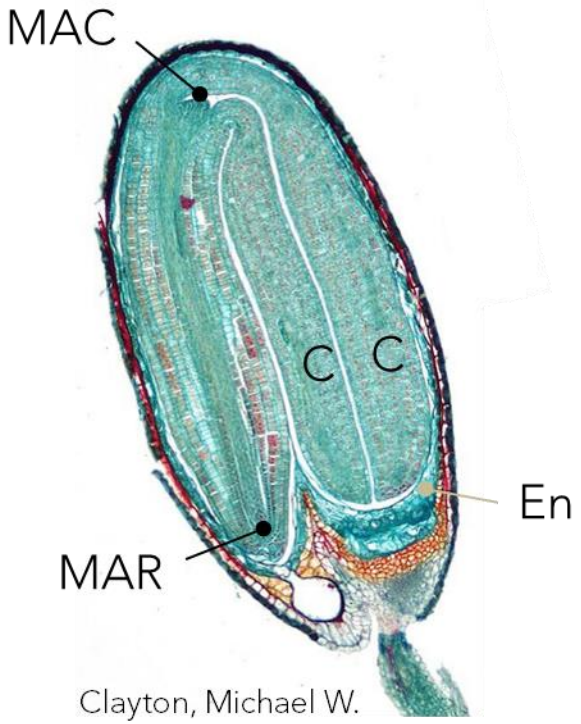
Un cotiledon



ucmp.berkeley.ed

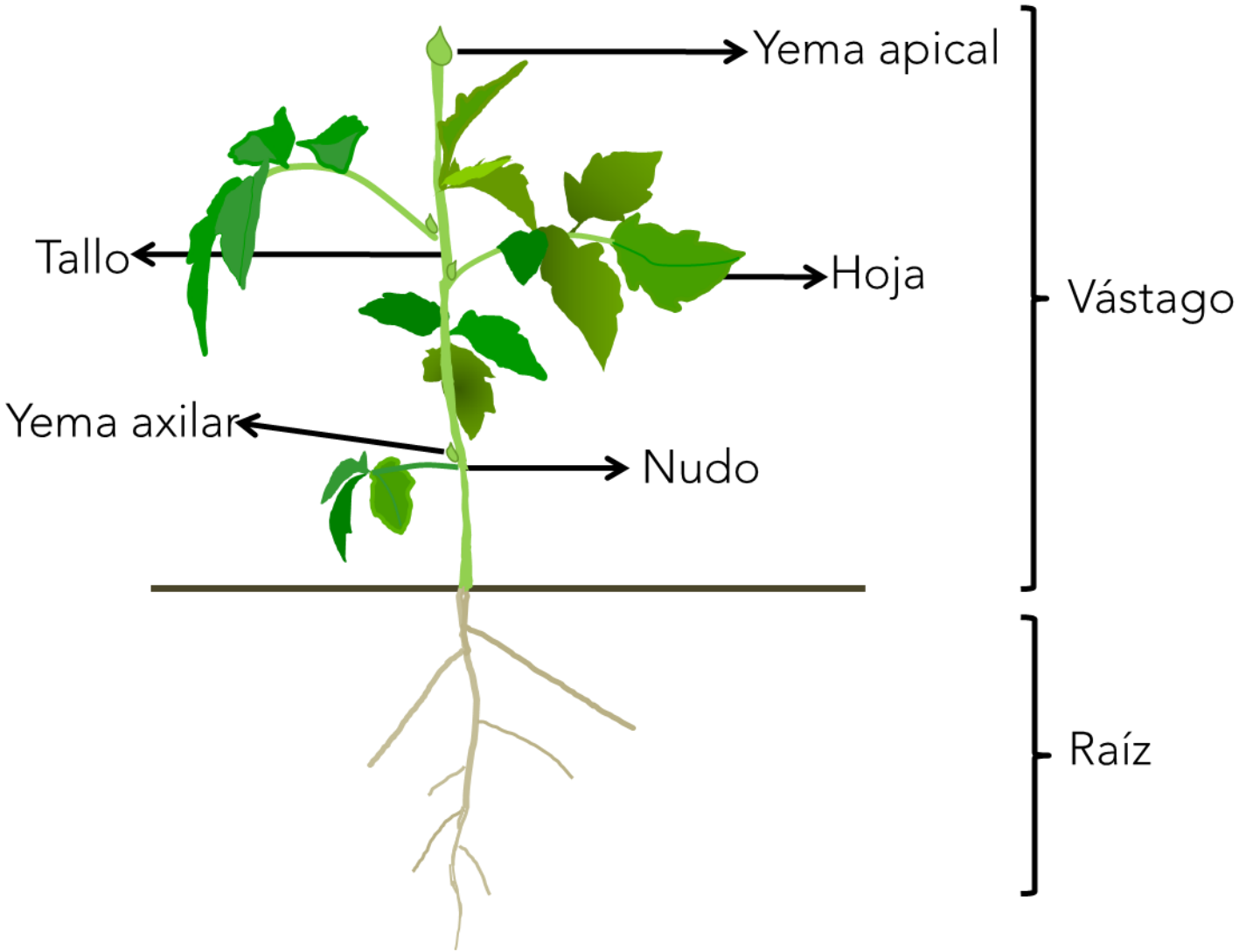
EUDICOTILEDÓNEAS

Dos cotiledones



Clayton, Michael W.

CORMO

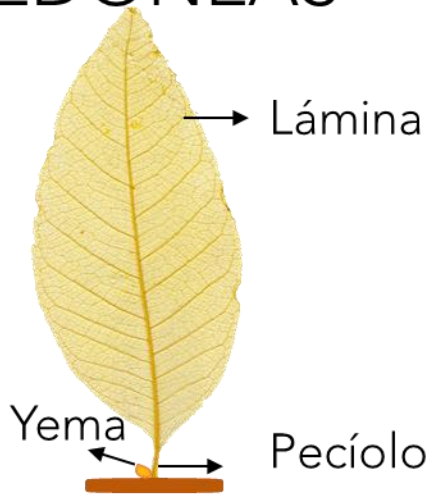


HOJAS

MONOCOTILEDÓNEAS

Paralelinervada

EUDICOTILEDÓNEAS



Retinervada

FLORES

MONOCOTILEDÓNEAS

Multiplos de tres

Tépalos

EUDICOTILEDÓNEAS

Multiplos de cuatro o cinco

Pétalos

Sépalos

SISTEMA RADICAL

MONOCOTILEDÓNEAS

Sistema Homorrizo

Raíces adventicias

EUDICOTILEDÓNEAS

Sistema alorrizo

Raíz lateral

Raíz principal

BIBLIOGRAFÍA

Campbell N & Reece J. Biología 7 ed. Editorial Médica Panamericana S.A. Bs As (2007)