

TREES IN OUR ENVIRONMENT

A blend of taxonomy and tree biology

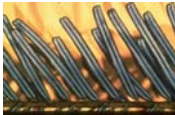


Basic questions of class:

What?

So what (i.e., why)?

What are general principles?



Banyan Tree *Ficus benghalensis*

Banyan Tree:

- trunks and support roots
- largest tree, Sri Lanka, > 2 acres

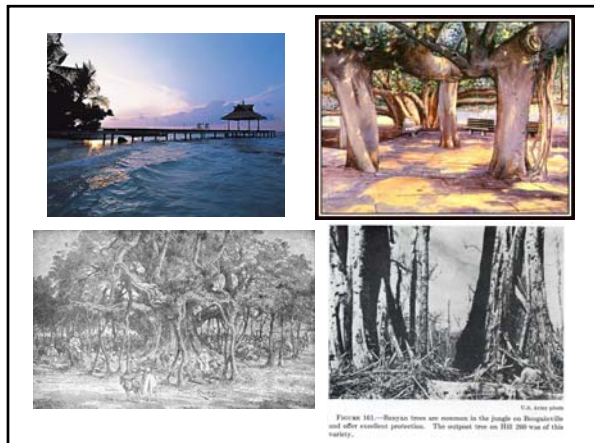
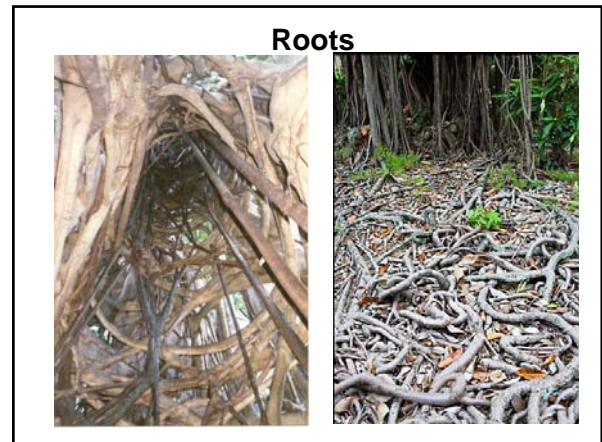
Life History/Ecology

- seeds are bird dispersed
- can germinate in crown of other tree
- branches send aerial roots to the ground
- aerial roots grow into trunks, which develop branches
- original host tree dies and banyan tree remains.
- grows in areas of high humidity and moist soils.



Aerial roots (totipotency)





Course Topics

Tree Diversity

Biology: basic function

Ecology/Adaptation

Interactions with People

Course goals:

- 1) Identify major woody species of PNW and genera of temperate forests worldwide
- 2) Appreciate and understand major
 - structures and life functions
 - evolutionary processes
 - adaptive strategies
- 3) Acquire skills for future learning and appreciation

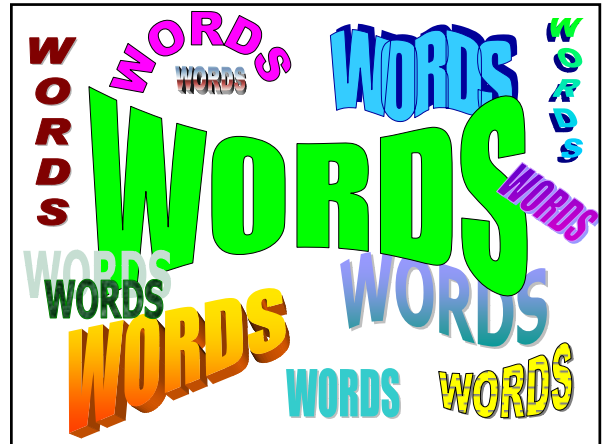
COURSE MECHANICS

Course materials

- schedule
- assignments
- grading
- lectures
- example exams
- tree images

Course website:
<http://www.cfr.washington.edu/classes.esc.310/310INDEX.htm>

Be aware and proactive....



In prep for 1st week lab and lectures:

BASIC TREE STRUCTURES:

Shoots:

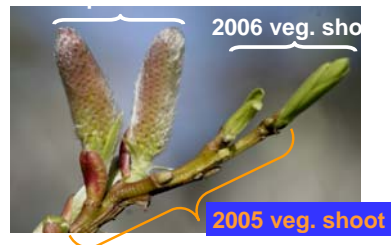
Buds:

BASIC TREE GROUPS:

Angiosperms vs Gymnosperms:

BASIC TREE STRUCTURES:

twig, plus leaves, plus buds
contain embryonic shoots
and/or reproductive structures



no flowers,
no fruits



flowers and fruits

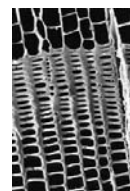
ANGIOSPERMS



Red Oak

complex wood (vessels)

**GYMnosPERMS
(ex. Conifer)**



simple wood (no vessels)

In prep for the term:

Who are you?