

The Dynamic Plant

Intro to the Course



Contact Info:

Name Use 3 x 5 card provided
by instructor
Major
Student I.D.
Contact info
 > Preferred email
 > Preferred phone number
Why did you take this course specifically?
List any other college level science courses
you have taken.
Are you a horticulture major?

Dynamic

.....of or pertaining to forces not in equilibrium or to *motion* as the result of force: opposed to static.

How are plants in motion?

What forces influence plants?

What are plants?

Organisms that are:

- Multicellular
- Photosynthetic
- Have cellulose rich walls
- Have chlorophyll
- Adapted to life on land.



Human and Animal Dependence on Plants

- Plants convert the sun's energy into energy that is usable to plants and to animals.
- In the process, plants produce oxygen and remove carbon dioxide in the air we breathe.

Why are Plants Important?

Write down as many "uses" of plants as you can think of in 1 minute.

→ Be prepared to share one of the items on your list with the class.



Amazing facts about plants

Tallest organism on the planet

Coast Redwood (379.1 ft)
Redwood National Park in CA.

Oldest organism on the planet.

Great Basin bristlecone pine (4842 yrs old)
Methuselah in Inyo Co CA.

98% of Earth's **biomass** is from plants.

25% of **modern prescription drugs** contain at least one **phytochemical** (Duke, 1993)

Oregon's economy is based on

.....Plants!!!

Scientific Nomenclature

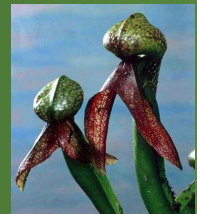
Species: groups of individuals with similar structures that are descended from the same initial group.

Named by

Genus & species

e.g. *Darlingtonia californica*

Common name: Cobra Lily,
California Pitcher Plant



pics.futuresystems.com/cobra.jpg
fromrareseedsource.com/proddetail.php?pr
od=cobra

Taxonomy vs. Systematics

Taxonomy: Describing, naming and classifying plants.
Started with Linnaeus (botanist & doctor)

Systematics: Developing methods for classifying and naming plants e.g. molecular biology.

Plants have diversified into roughly 290,000 living species



Human and Animal Dependence on Plants

Plants are the sources of multiple products of human society:

- Clothing
- Medicines
- Coal and oil
- Alternate energy sources



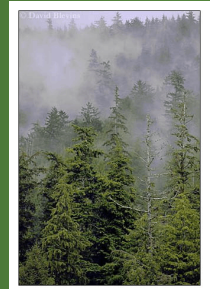
Cotton plants

Botany

The scientific study of plants.

Includes:

- Structure & Function
- Ethno-botany
- Economic botany
 - Agriculture
 - Forestry
- Biogeography & Biomes
- Genetics



Structure & Function

Structure – Anatomy
Examines form/shape.

Function – Physiology
Examines workings.



Peace Lily *Spathophyllum*

Most common poison control center call related to houseplants.

Contains Calcium Oxalate crystals:

- Skin irritation
- Burning of the mouth
- Difficulty swallowing
- Nausea

