

US EPA ARCHIVE DOCUMENT

Botany 101

EPA Tribal Stormwater Workshop
Stormwater Controls for Tribal Lands
Charlotte Ely and Eugenia McNaughton
August 30, 2011

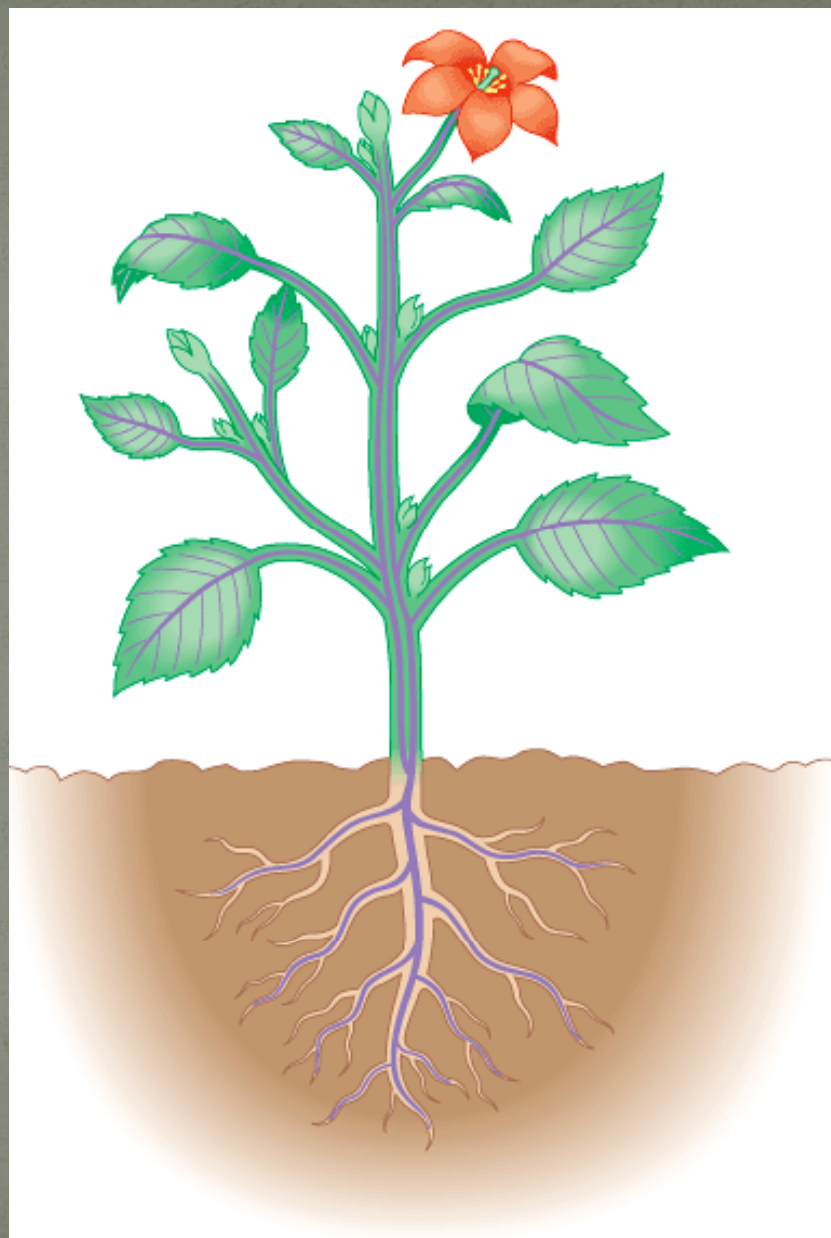
Today's presentation

- Definition & Consequences (Charlotte)
- Tour of native California (Eugenia)



Definition

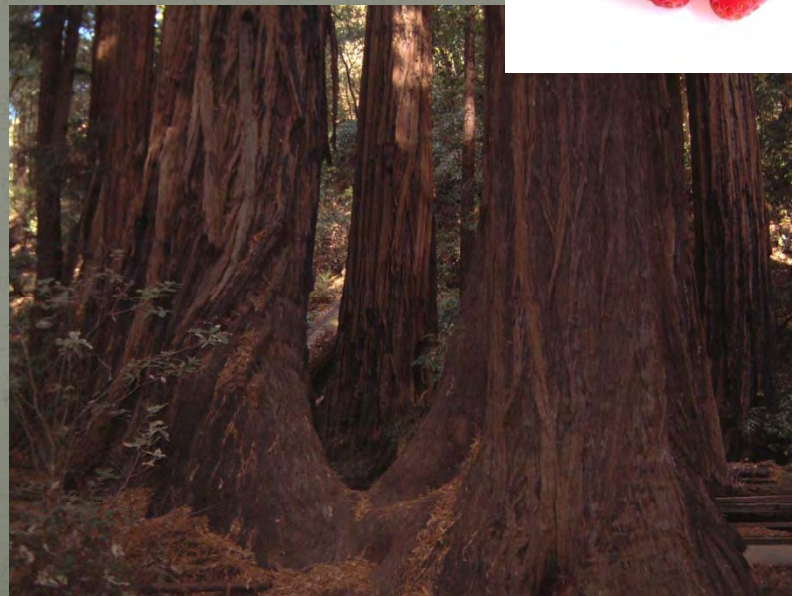
- Plants stay put
- Plants grow
(and keep growing)
- Plants feed themselves



Consequences of staying put

How would you reproduce if couldn't move?

- **Asexual**
 - Vegetative
 - Rhizomes, buds, solons, bulbs, tubers, etc.
 - Apomixis
- Sexual
 - Pollination
 - Abiotic (wind)
 - Biotic
 - Self-pollination
 - Cross-pollination



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Consequences of staying put

How would you defend yourself?

- **Chemical defense**
 - Secondary metabolites
- Mechanical defense
 - Internal
 - External
 - Thigmonastic
- Mimicry/camouflage
- Mutualism



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Consequences of indeterminate growth

- What if people had meristems?



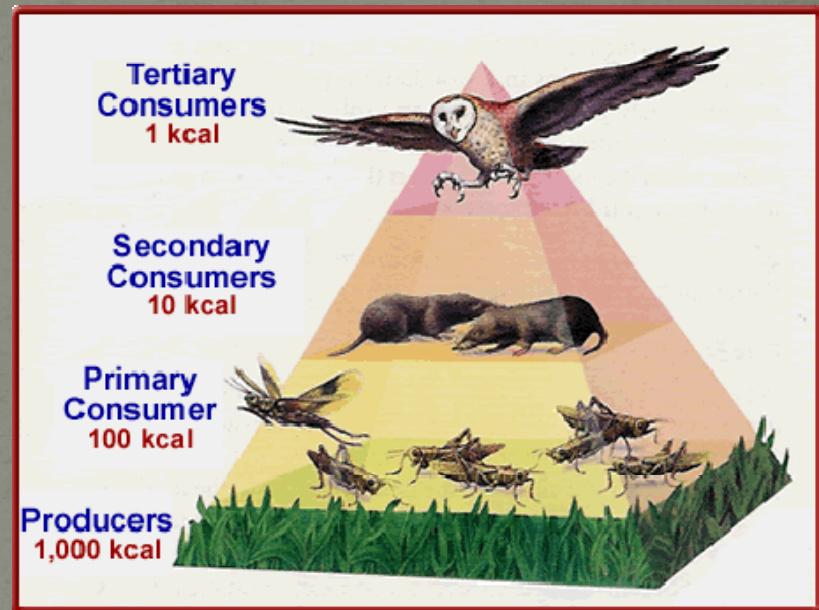
Consequences of autotrophy

- What if sunlight powered industry and industry emitted just sugar and oxygen?



Consequences of autotrophy

- Plants are *The Producers*



- Plants gave rise to life as know it, and plants sustain life as we know it.