

# Class 13b: Soils (pedology)

# What is soil?

- Not just dirt

# Soil components

- *Parent material:*
- Temperature and moisture

# Soil formation

- Bedrock breaks apart into *regolith*

# Classifying soils: color

- Color tells you about chemistry

# Classifying soils: texture

- Size, organization of particles

# Classifying soils: texture

# Classifying soils: structure

- Arrangement of soil particles

# Classifying soils: structure

- *Porosity:*
- *Permeability:*

# Soil moisture

# Soil-water balance

- Warmer temperatures: higher ET
- Higher precipitation: higher percolation

# Soil profiles

# Soil classification

- More complicated than climate

# Entisols

- Relativey new: most recent **ent** soils

# Oxisols

- Old soils; minerals except **oxides** leached out

# Aridisols

- Found in **arid** environments

# Mollisols

- Most productive soil

# Alfisols

- Significant aluminum (**Al**) and iron (**Fe**)

# Spodosols

- Most acidic soil; minerals leached to lower horizon

# Soil degradation

- Forms in 500 years, but can disappear in one

# Soil degradation

# Soil degradation

- *Salinization*: salty soil