**Rangeland Succession**

* **Succession**
	+ The orderly change of plant communities over time.
	+ The gradual replacement of one plant community by another through natural processes over time
		- Primary = From parent material
		- Secondary = With soil in place
* **Primary Succession**
	+ Soil and plants evolve together



* **Primary Succession**
	+ Begins in a place without any soil
		- Sides of volcanoes
		- Landslides
		- Flooding
	+ Starts with the arrival of living things such as lichens that do not need soil to survive
		- Called **PIONEER SPECIES**
	+ Soil starts to form as lichens and the forces of weather and erosion help break down rocks into smaller pieces
	+ When lichens die, they decompose, adding small amounts of organic matter to the rock to make soil
* **Secondary Succession**
	+ Begins in a place that already has soil and was once the home of living organisms
	+ Occurs faster and has different pioneer species than primary succession
	+ Example: after forest fires
		- Others?
* **Basic idea of Succession**
	+ The simple plants die, adding more organic matter.
	+ The soil layer thickens, and grasses, wildflowers, and other plants begin to grow (annuals & herbaceous).
	+ These plants die, and they add more nutrients to the soil.
	+ Shrubs and tress can then survive.
	+ Insects, small birds, and mammals begin to inhabit.

\*\* What was once bare rock now supports a variety of life.

\*\* We manage forces that cause these changes.

* **Forces of Ecosystem Change**
	+ Immigration and establishment of plants
	+ Competition between plants
	+ Site modification
		- Add organic matter
		- Change available moisture and nutrients
	+ Stabilization
		- Reduced yearly variation in kind and amount of plants and animals.
* **Climax Community**
	+ The end point of succession = Climax
	+ A stable group of plants and animals that is the end result of the successionprocess
		- Trees in forests
		- Grasses in prairies
		- Cacti in deserts
		- Lichens and shrubs in the tundra
	+ The end point depends on climate