

Ecological Succession Worksheet

1. Describe the difference between primary and secondary succession.

A. Primary succession occurs in an environment in which no substrate devoid of vegetation and usually lacking soil, such as a lava flow or area left from retreated glacier. Secondary occurs on substrate that previously supported vegetation/before an ecological disturbance.

2. What events/disturbances can lead to primary succession?

A. Lava flow or area left from retreated glacier.

3. What events/disturbances can lead to secondary succession (OR disturbance)?

A. Floods, hurricanes, tornadoes, volcanic eruptions, forest fire, harvesting, replanting, deforestation, pollution, wind rain.

4. Define pioneer species.

A. The species in first colonize previously disrupted or damaged ecosystems that begins a chain of ecological succession.

5. Define climax community.

A. A biological community of plants and animals which, through the process of ecological succession.

6. Describe the relationship between R and r strategies and the stages (early) of succession.

A. After a secondary succession like the eruption of Mount Saint Helens, r strategists appear to colonize the damaged ecosystem, then eventually R strategists appear.

7. What happens to species diversity during succession? Why?

A. Species diversity almost increases every time during early succession as new species arrive but may decline in later succession as competitive eliminates opportunistic species.

8. What happens to NPP and LPP during succession? Why?

A. During succession, LPP tends to increase then decrease as climax community reaches maturity.

Succession of a Local Ecosystem

Use the Internet to research the succession of one of our local ecosystems. Include specific species and describe their adaptations for the environment. Describe all stages of succession. Include pioneer and climax species.

A. Ecological succession at El Estero (Simpson Creek/El Estero Estero)

Plants: