

**AIM:** How does ecological succession lead to biome development?

**Biome -** terrestrial (land) regions and the specific plants and animals that inhabit it  
biome type is determined by the temperature and precipitation

**Succession –**  
process by which one community replaces the next until a stable climax community (biome) develops

**Primary Succession -** “bare rock beginnings” (no soil!) - formation of a new land environment  
examples: lava flow (formation of a volcanic island),  
retreated glacier scours landscape to bare rock

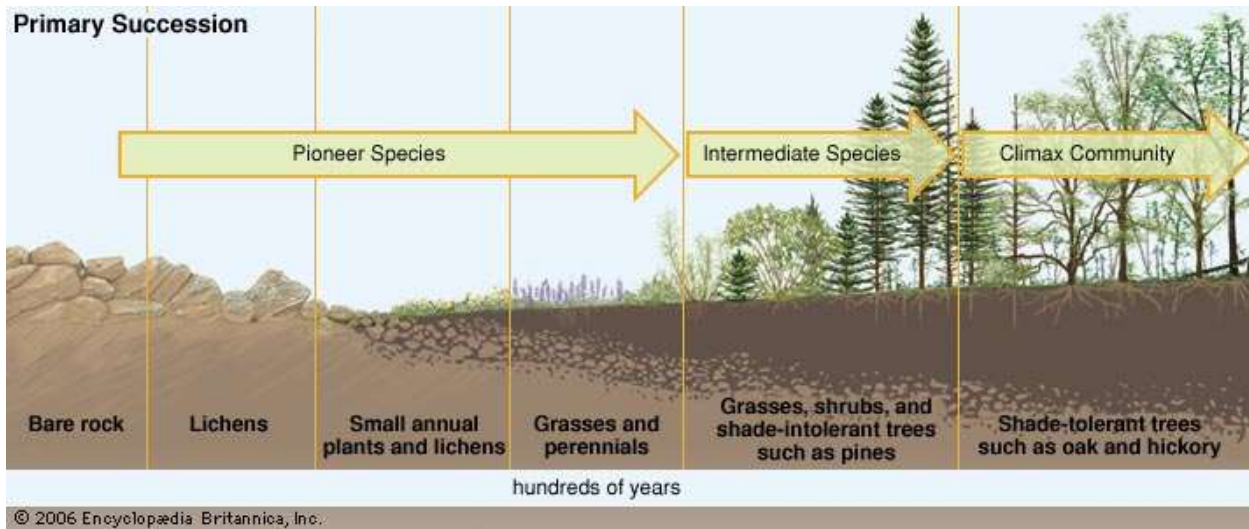
Stages in Primary Succession -

**1. Pioneer Species** - attach to bare rock (lichens and mosses)  
begin the chemical breakdown of rock into soil

**2. Early Successional Species** - grow low to ground in little soil need lots of sunlight  
(grasses)

**3. Midsuccessional Species** - deeper soil can support larger plants with larger roots  
(bushes / shrubs / some pine trees)

**4. Late Successional Species** - relatively stable forest mostly trees & shade tolerant plants  
(oak and hickory trees)



**Climax Community –**

plants and animals exist in a stabilized/balanced community = biome

**Secondary Succession -**

occurs when an existing community is disturbed or destroyed, but not returned to bare rock (soil still present), and then a new community forms in its place - much more common

