



Fri, April 21, 2017

Pick up: none

Today you will:

- Click in EOC Study Guide Qs 148-183 (#1-36 1st)
- Self check
- Succession review

Homework/Planner:

Ch. 14 Notes due Monday



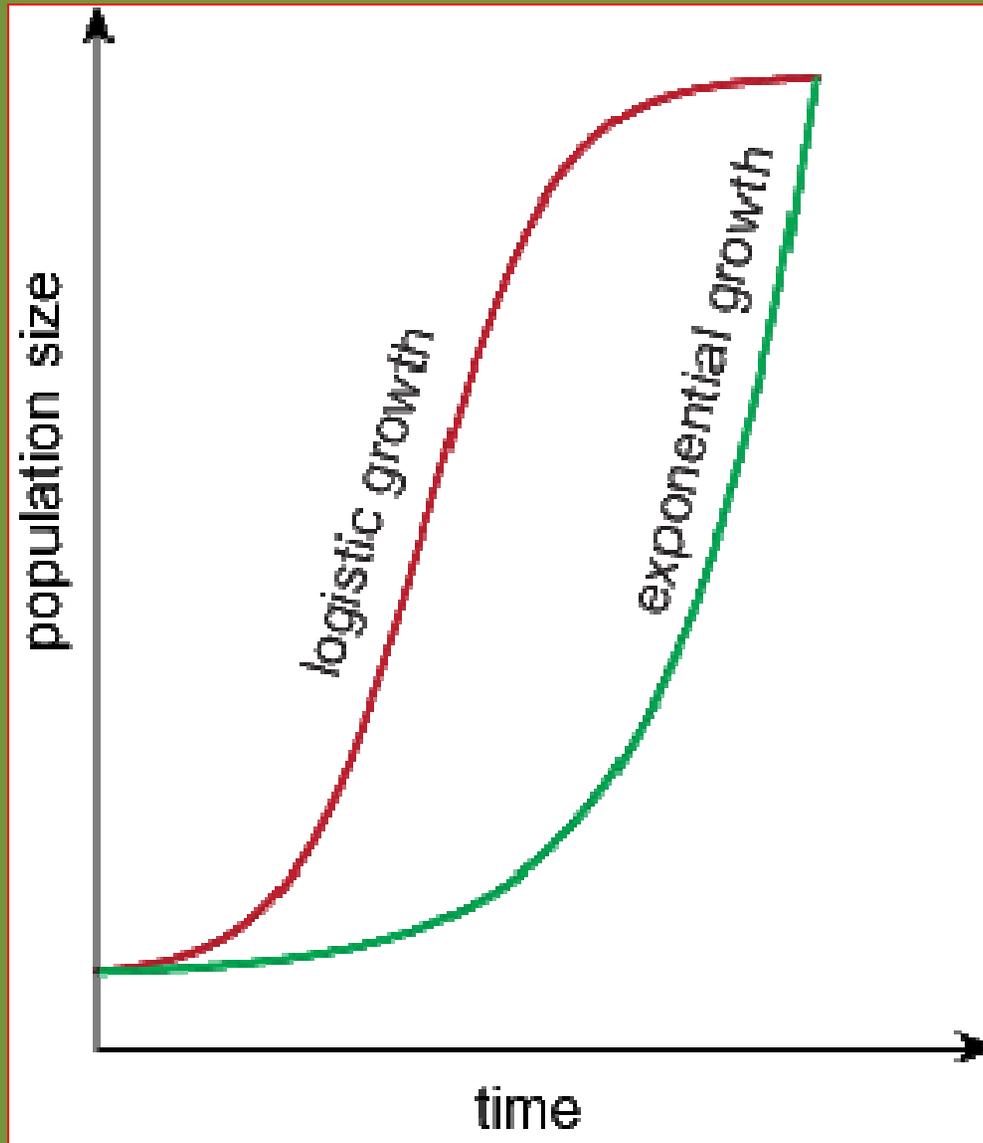
Symbiotic Relationships

MATCHING

- B 1. Symbiosis
- A 2. Parasitism
- D 3. Mutualism
- C 4. Commensalism

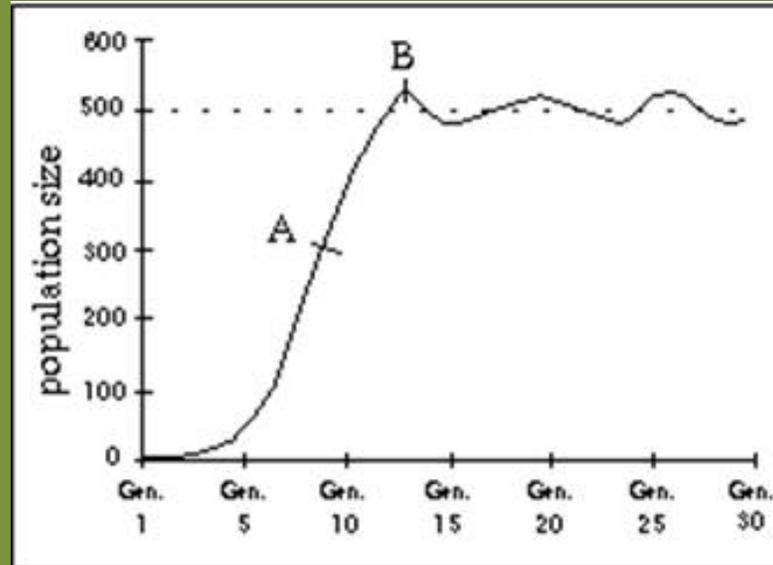
- A. Relationship in which one organism benefits & the other is harmed, but usually not killed
- B. A close relationship
- C. Relationship in which one organism benefits & the other is not affected either way
- D. Relationship in which both organism benefits

Review Growth Curves

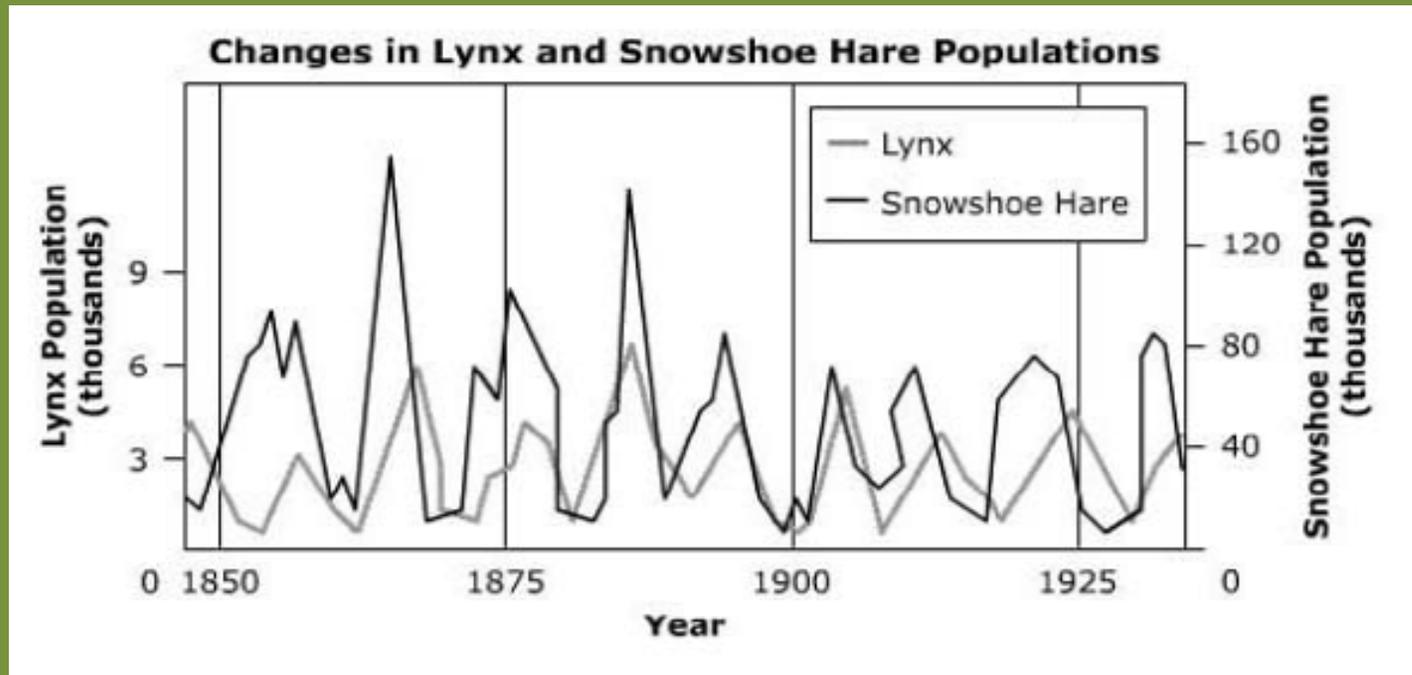


1. What are some similarities?
2. What are some differences?

- ▣ A growth curve for a population of crabs on a coral reef is shown below



1. Which statement explains what is happening at Point A?
 - A. Population growth decreases as individual crabs get older
 - B. Destruction of habitat is causing a decline in the population of the crabs
 - C. The population is beginning to slow as it approaches carrying capacity
 - D. The introduction of a new predator is causing a decline in population and forcing the crabs to reach carrying capacity sooner
2. What IS the carrying capacity of the ecosystem for the crabs?



1. Which statement about carrying capacity is correct based on the changes shown?
 - A. The lynx population has no impact on the ecosystem's carrying capacity for the snowshoe hare.
 - B. The snowshoe hare population has no impact on the ecosystem's carrying capacity for the lynx
 - C. As the lynx population passes the ecosystems carrying capacity, the lynx population decreases and the snowshoe hare population increases
 - D. As the snowshoe hare population passes the ecosystems carrying capacity, the lynx population decreases and the snowshoe hare population increases

1. Data on the immigration & emigration of a fish species would be most helpful in determining which of the following?

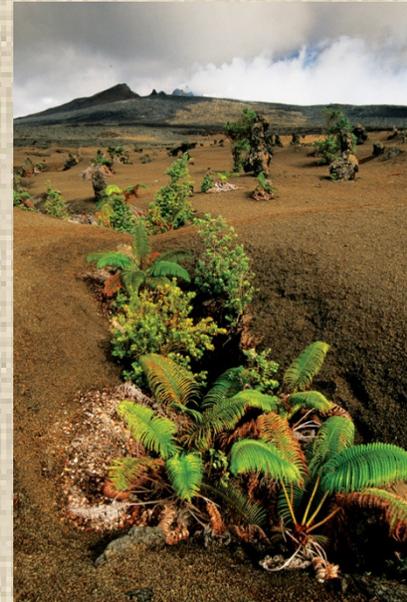
- A. biological magnification**
- B. interspecies competition**
- C. predator-prey relationships**
- D. population of the species**

2. When an environment has reached its carrying capacity for a certain population, which of the following is true?

- A. Growth and immigration rate is equal to death and emigration rate.**
- B. Growth and immigration rate is greater than death and emigration rate.**
- C. Growth and immigration rate is less than death and emigration rate.**
- D. Growth rate is exponential.**

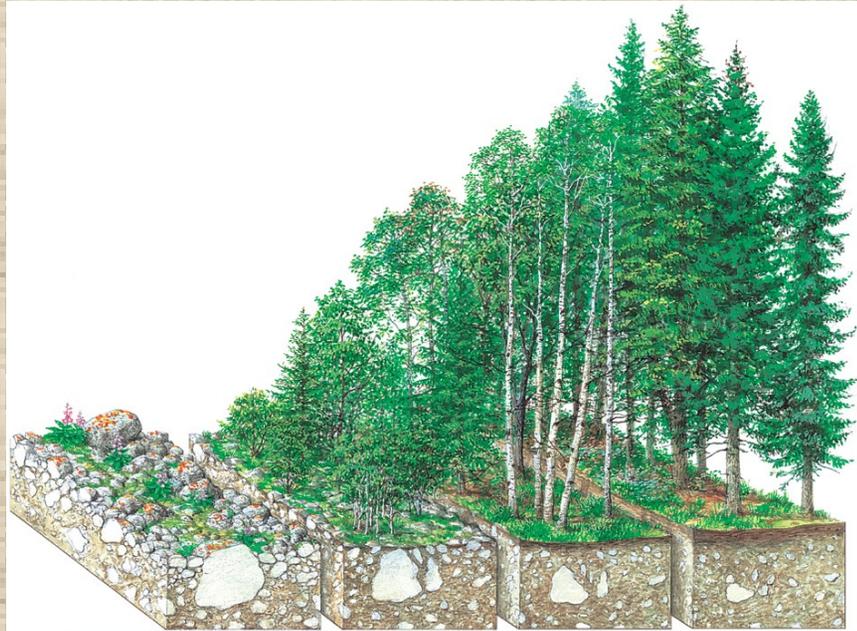
Succession occurs following a disturbance in an ecosystem.

- Succession regenerates or creates a community after a disturbance.
 - a sequence of biotic changes
 - damaged communities are regenerated
 - new communities arise in previously uninhabited areas

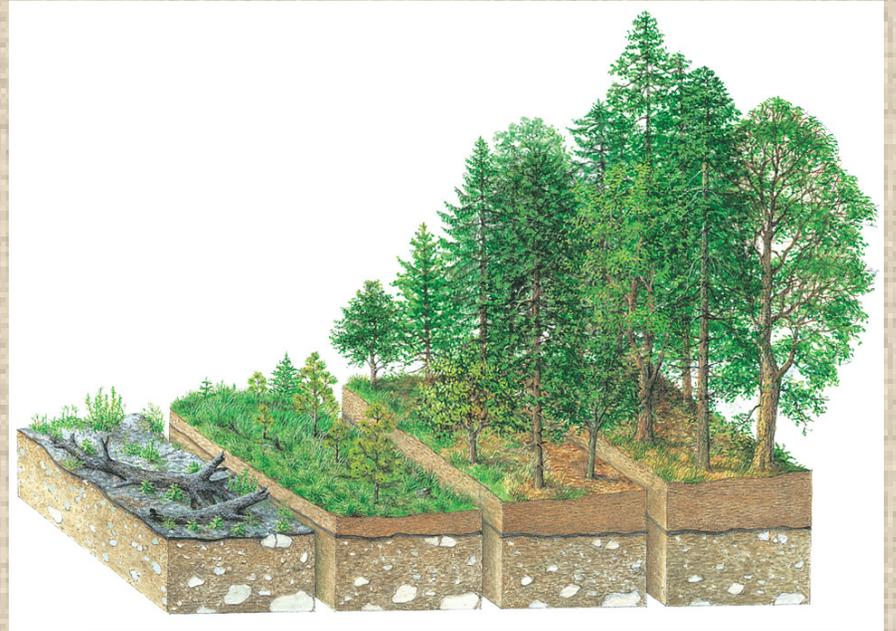


- There are two types of succession.

- primary succession —
started by pioneer species, no soil, no existing life



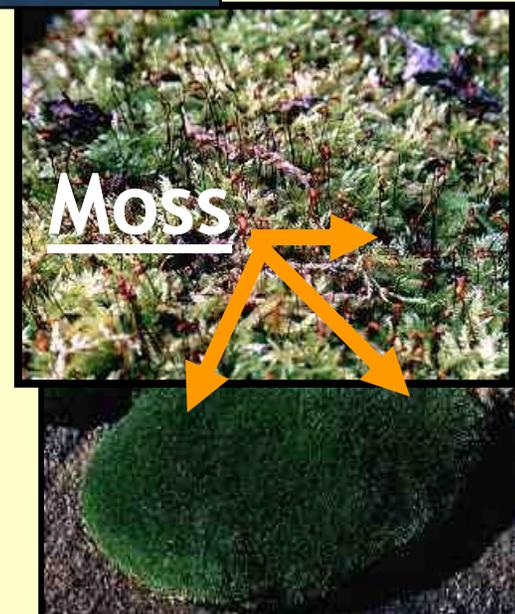
- secondary succession —
started by remaining species after a disturbance



History: Surtsey, Iceland: The Newest Place on Earth....

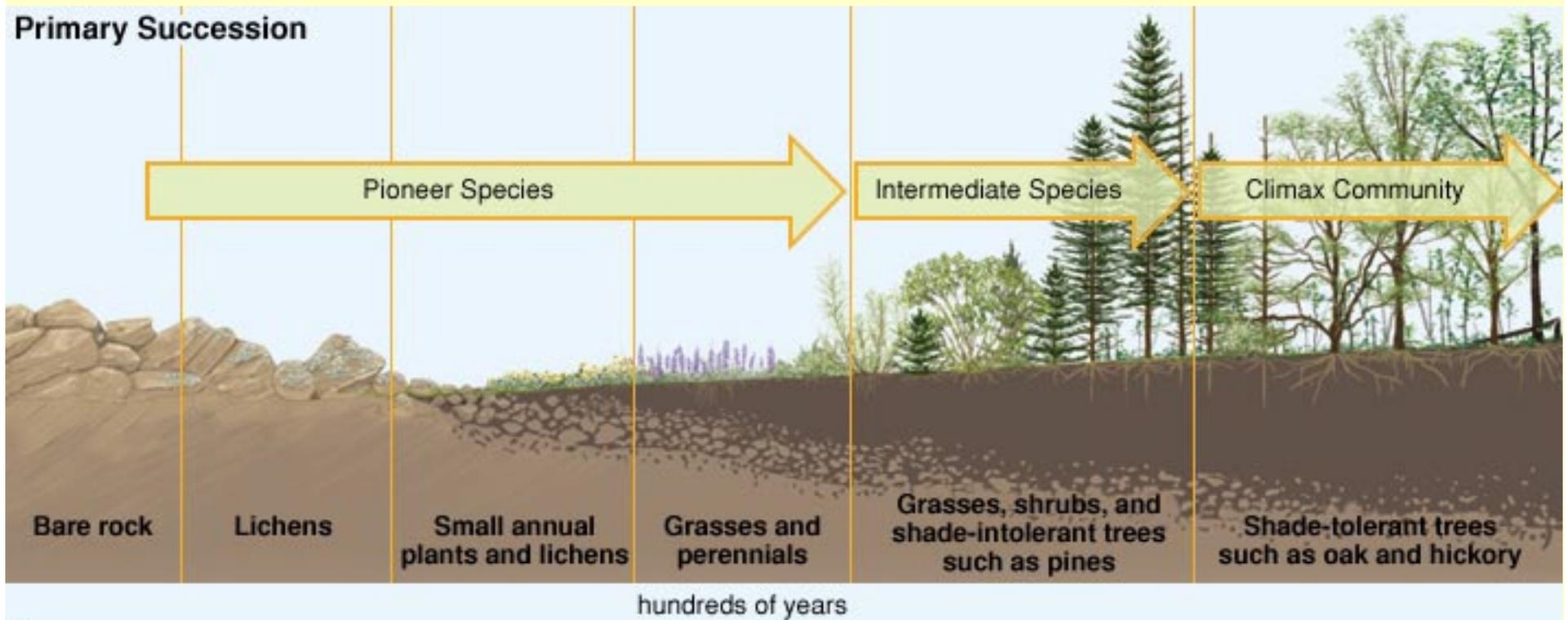
Succession in real life

- Named after Surtur, the fire possessing giant of Norse mythology who would set fire to the earth at the Last Judgment.
- First seen as an underwater eruption by fisherman in 1963.
- The lava flowed for 3 ½ years
- 1st organism was a fly.
- 1st bird to lay eggs was a goose in 2002



Look at

Primary Succession



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PIONEER SPECIES: first org, unstable

CLIMAX COMMUNITY: stable



Organisms are driven away or killed by some type of **disturbance**, like a forest fire, leaving behind only the **soil**.



Pioneer species, like grasses and weeds, begin to grow from the soil. Roots and seeds left over may also begin to grow again



Some pioneer species die and are replaced or outcompeted by other species like shrubs and small trees.

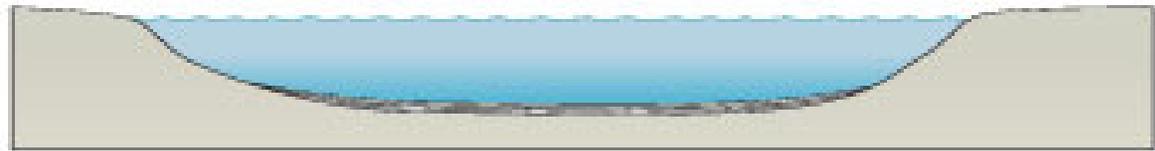


Small and Large trees begin to grow, and the community reaches an **equilibrium** or balance. This results in a **climax community**.

Secondary Succession: The *reestablishment* of community following disturbance.

Deep freshwater no rooted plants because of lack of light in deep water

Community only microorganisms and phyto plankton



Sediments get carried into the pond allowing rooted submerged and floating to start to grow



Sediments continue to build up.

reeds and grasses develop around pond margin trapping more sediment



A marsh community builds up around the pond margins

Reeds take over more of the pond as more silt build up



As the soils around the edge dry from water logged to damp, tree species such as willow and alder become established



Stages of Ecological Succession

ISN 215

- Read Ch. 14.5 and complete ISN pgs 215
- Succession Video Clip
- <https://www.youtube.com/watch?v=uqEUzgVAF6g>

How Wolves Changed Yellowstone & Sea Otter Video Clip

- https://www.youtube.com/embed/ysa5OBhXz-Q?feature=player_embedded

- http://www.pewtrusts.org/en/multimedia/video/2015/sea-otters-vs-urchins-in-canadas-kelp-forests?img&utm_campaign=2015-04-22%20Latest&utm_medium=email&utm_source=Eloqua