

Chapter 14 Population Guided Notes

Section 14.1: HABITAT & NICHE

- Habitat: _____
 - _____ factors
 - _____ factors

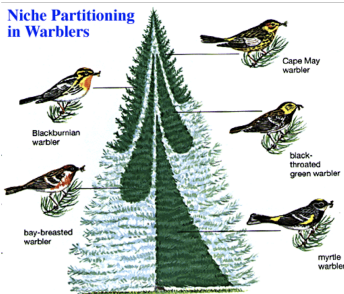
- **Niche:** includes all of the factors that a _____ needs to _____, _____, and _____
 - _____
 - _____ conditions
 - _____

- Resource availability gives _____ to a community.
- Species can share _____ and _____.
 - Ex: _____
- Competition occurs when two _____ use resources in the _____.
 - Ex: _____

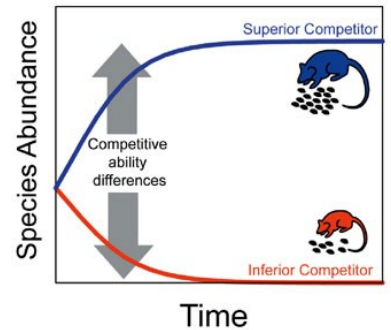
**A _____ is where a species lives and a _____ is how it lives within its habitat.

Competitive Exclusion:

- _____: keeps two species from occupying the same _____.
 - _____:
1. One species is better _____ to the niche and the other will either be _____ out or become _____
 2. _____: the niche will be _____
 3. The two species will become more & more _____



a. Competitive exclusion



Ecological Equivalents:

- Are species that _____ but live in different _____
 - Ex: _____

Section 14.2: COMMUNITY INTERACTIONS

- **Competition:** Occurs when organisms fight for the same _____
 - Two types of competition:
 1. Interspecific: _____ Ex: _____
 2. Intraspecific: _____ Ex: _____
- _____ occurs when one organism _____ and _____ another
 - **Predator** _____ : **Prey** _____
 - Example: _____

SYMBIOSIS

- Symbiosis is a close relationship between _____ that live _____ together

3 Types of symbiosis:

Symbiosis	Definition	Example	Organism 1	Organism 2
1.				
2.				
3.				

Match each of the following relationships descriptions with the correct symbiosis.

1. _____: A deer tick feeds on the blood of a human and may inject bacteria that cause Lyme Disease.
2. _____: A woodpecker eats moths preying on a cactus. The cactus provides a protected habitat for the wood pecker.
3. _____: A plover bird eats leeches off the gums of a crocodile and parasites from the crocodile's hid. The crocodile provides protection for the plover.
4. _____: Spanish moss gains exposure to sunlight by growing on the branches of trees. It does not harm the tree.
5. _____: Aphids eat the sap from plants and excrete sticky waste that ants eat. The ants protect the aphids from predators.
6. _____: A leech feds on a host's blood.
7. How is the predator/prey relationship different from parasitism? _____

Section 14.3: Population Distribution

- **Population density:** the _____ that live in a _____
 - _____ can calculate population density

Equation: _____ = population density

- Example: 200 deer in an area of 10 square kilometers

_____ = _____ deer per sq. km

Population dispersion

- The way in which _____ of a _____
 - 3 types of dispersion patterns

Dispersion pattern	Definition	Example	Diagram
1.			
2.			
3.			

Section 14.4: Population Growth

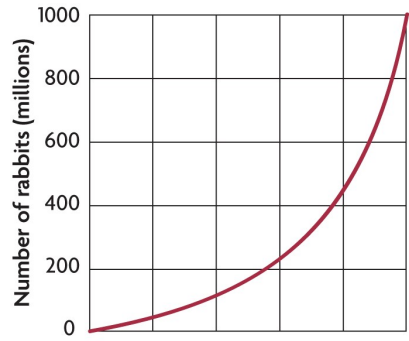
- 4 Factors determine the size of a _____.

1.	2.	3.	4.
Ex:	Ex:	Ex:	Ex:

- Population growth is based on available _____
 - 2 types of population growth

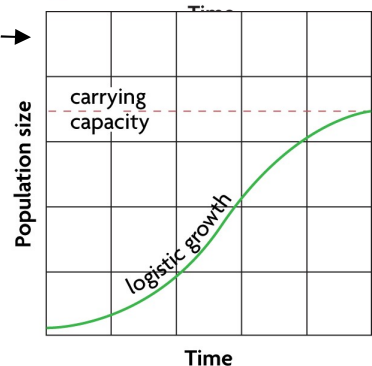
1. Exponential Growth

- Population grows rapidly due to _____
- _____ curve



2. Logistic Growth

- Population begins with _____ followed by exponential growth then _____ resources
- _____ curve



• **Carrying Capacity:** The _____ that an _____ can _____



• **Population Crash:**
 ○ Dramatic _____ in the size of a _____ over a _____ of time
 ▪ May be due to _____, scarce _____ supply, _____, etc.

• **Ecological factors limit _____ growth**

• Limiting factor: _____
 • 2 types of limiting factors:

Limiting Factor	Definition	Causes
1.		
2.		

Section 14.5: Ecological Succession

• **Ecological Succession:** sequence of _____ that create a _____ or _____ a damaged community

2 types of Ecological Succession:

- 1. _____ succession
- 2. _____ succession

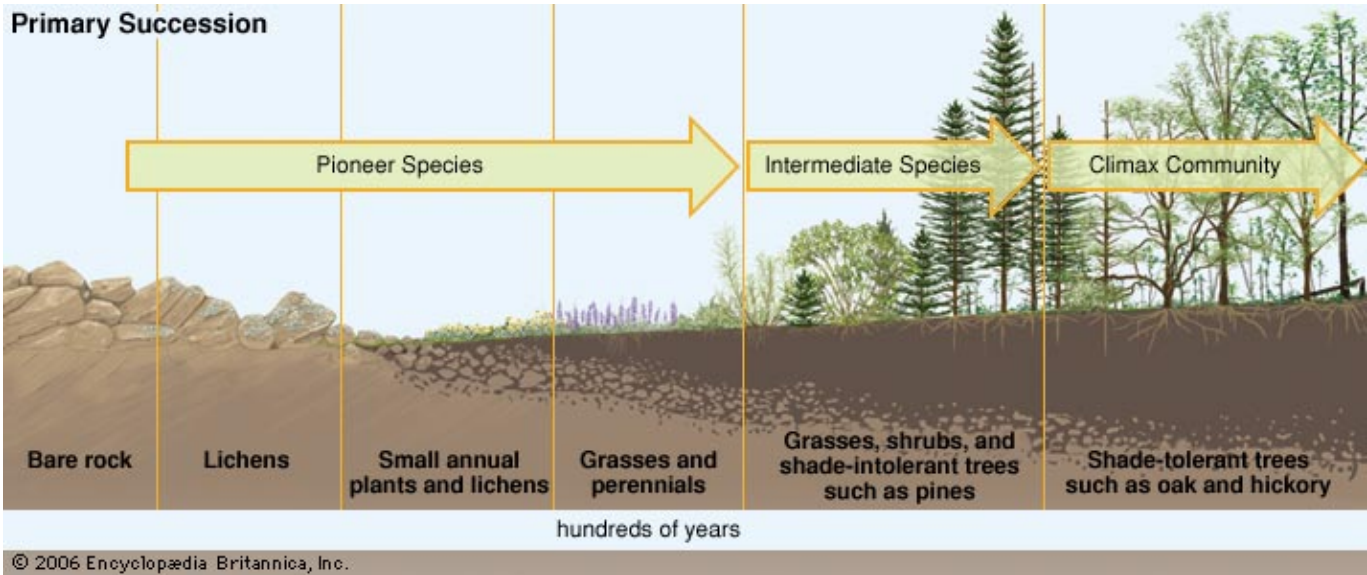
PRIMARY SUCCESSION

- Development of an _____ in an area that has been _____
- Started by _____: _____ to live in an _____ area Ex: (_____)

 - Lichens _____ to form soil.
 - Low, growing moss plants _____ and prevent _____

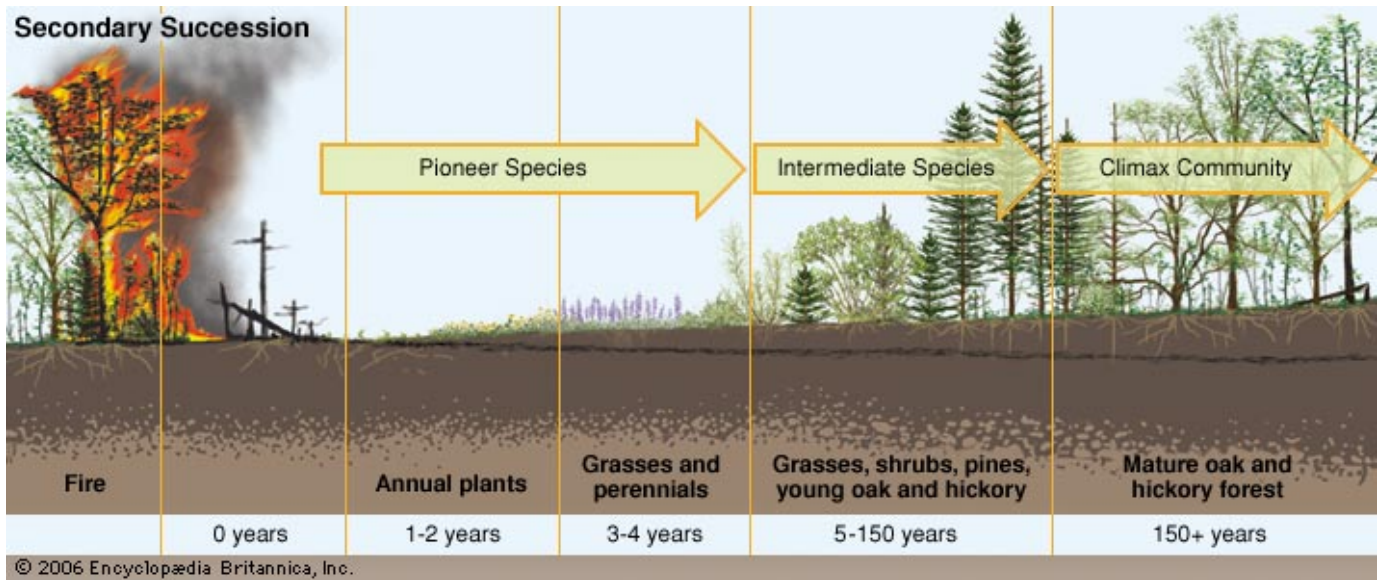
Steps of Primary Succession:

1. Bare _____ is broken down by _____, _____, _____, etc.
2. _____ & _____ grow on rock and break it up even more
3. _____, _____, & _____ begin to grow
4. Small _____ take root (_____)
5. Different tree species (_____) begin to grow and eventually _____ out the original _____



SECONDARY SUCCESSION

- Does not begin with _____
- Occurs after a _____ (_____, _____, etc.)
- Begins with _____ species where _____ was left _____
- Occurs _____ and does not _____ (small disturbances like _____ start the process over)



Climax Community

- This _____ is called a climax community.
- This community may _____ that can last for _____ or _____

Secondary Succession of an Oak and Hickory Forest

