



Tuesday, April 25, 2017

[Ocean Acidification](#)

[Pick up: Article](#)

Today you will:

- Turn in Ch. 14
- Finish Biodiversity & Human Impacts
- Invasive Pythons put Squeeze on Everglades Article

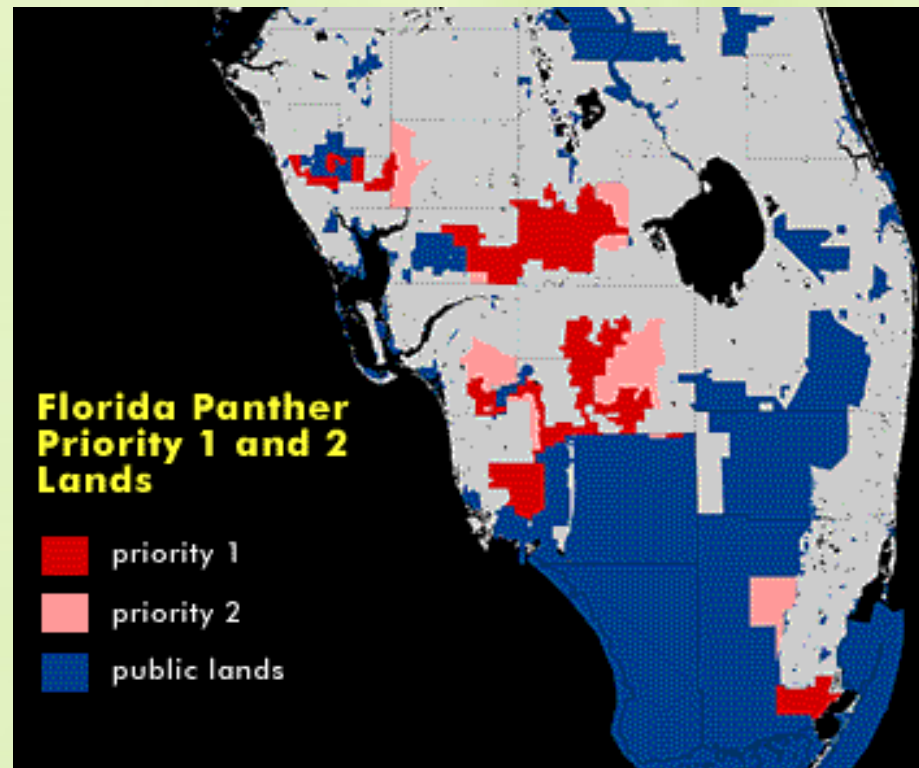
Homework/Planner:

DIA & EOC Study Guide Questions 184-225 due Friday

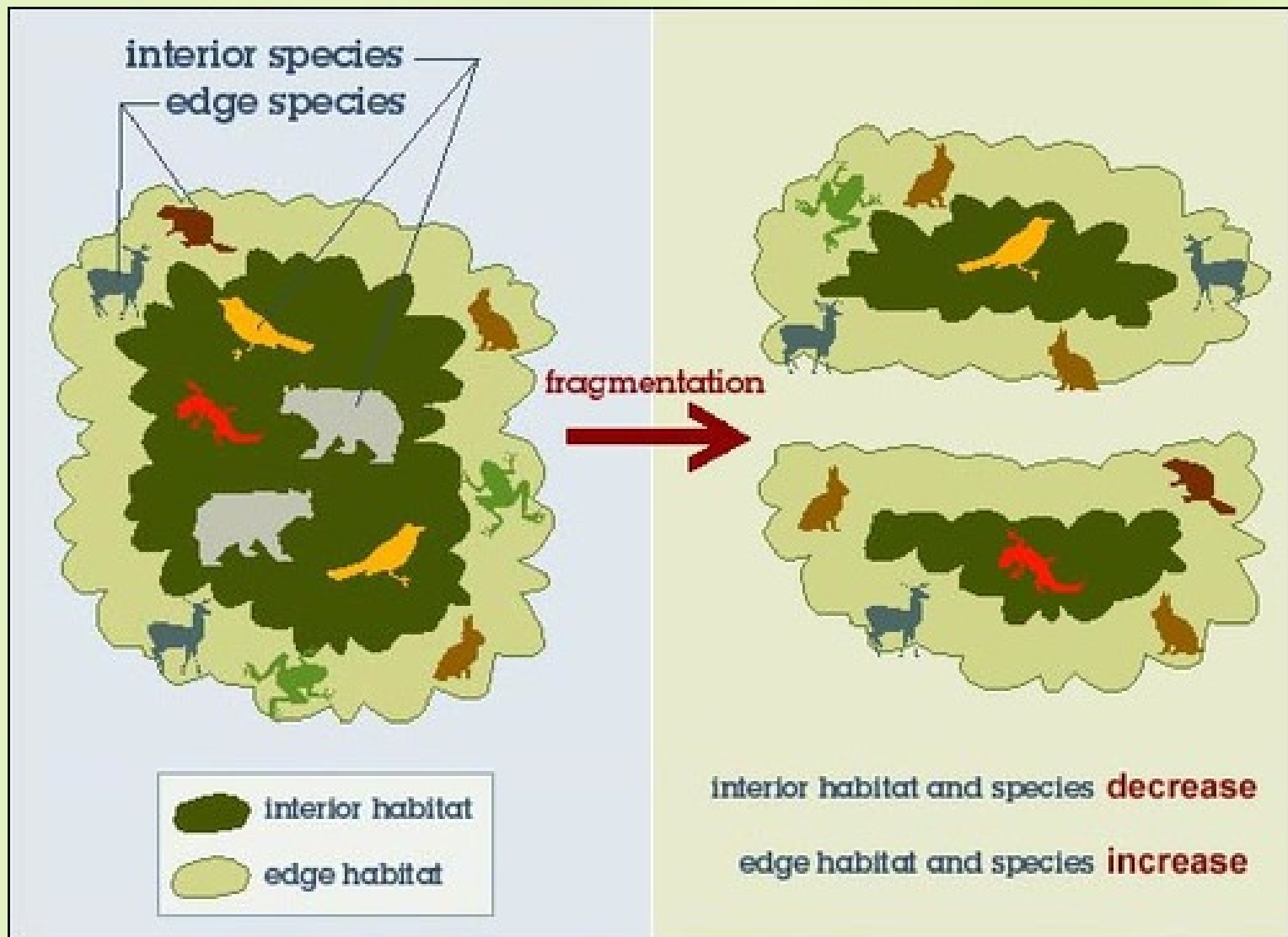
HONORS-Case study due Thursday.

Habitat Fragmentation

- In Florida, suitable habitat for panthers does exist outside of southwest Florida, but to date habitat fragmentation appears to have prevented panthers from reestablishing themselves there



Habitat Fragmentation



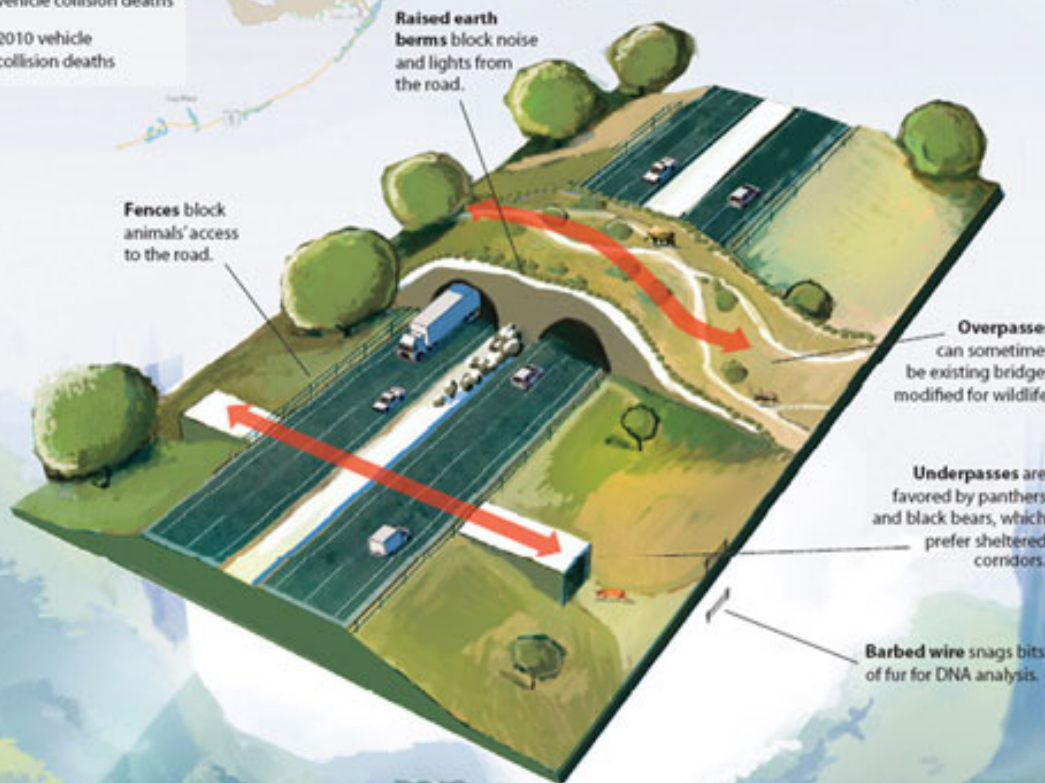


Panther deaths

- January–July 2011 vehicle collision deaths
- 2010 vehicle collision deaths

Safe Passage

Wildlife overpasses and underpasses are landscaped pathways to channel animals safely across highways.



When Florida loses one black bear's home range (25,000 acres), we also lose the homes for:



1

bear

25,000 acre average home range



60

bobcats

1 bobcat per 410 acres



165

foxes

1 fox per 150 acres



580

deer

1 deer per 43 acres



1,250

Northern bobwhites

1 bobwhite per 20 acres



2,000

cardinals

1 cardinal per 12 acres



2.5 million

trees

assuming a spacing of 20' x 20' or 100 per acre



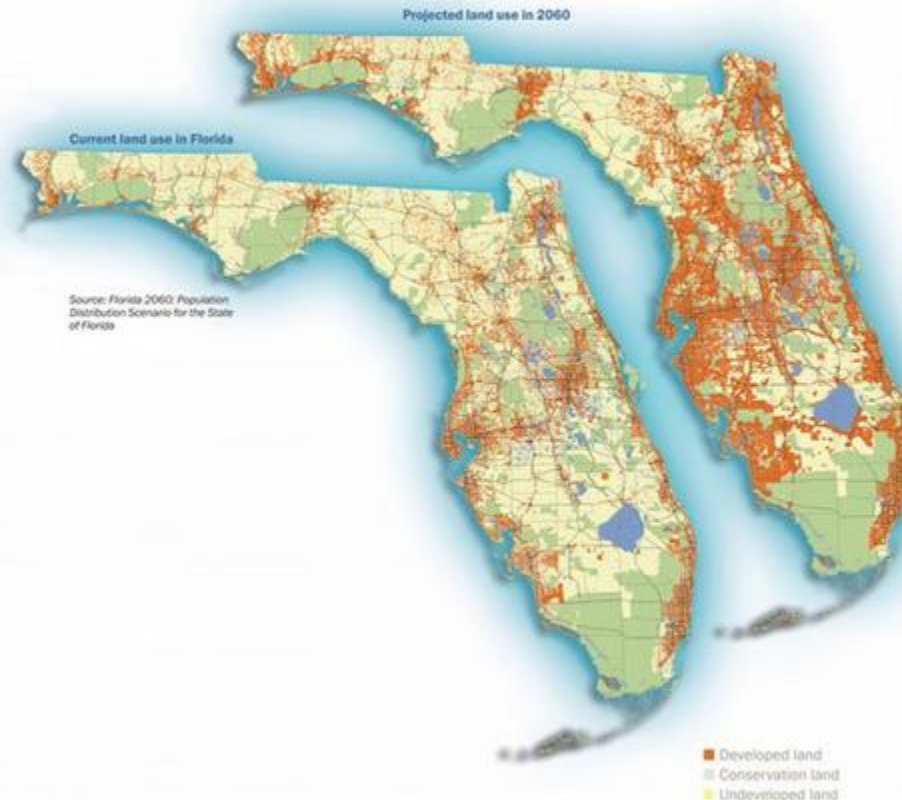
6,975 trillion

insects

assuming 275 million insects per acre

Development of 2.7 million acres of native habitat will result in significant losses for Florida's biodiversity.

Now vs. 2060

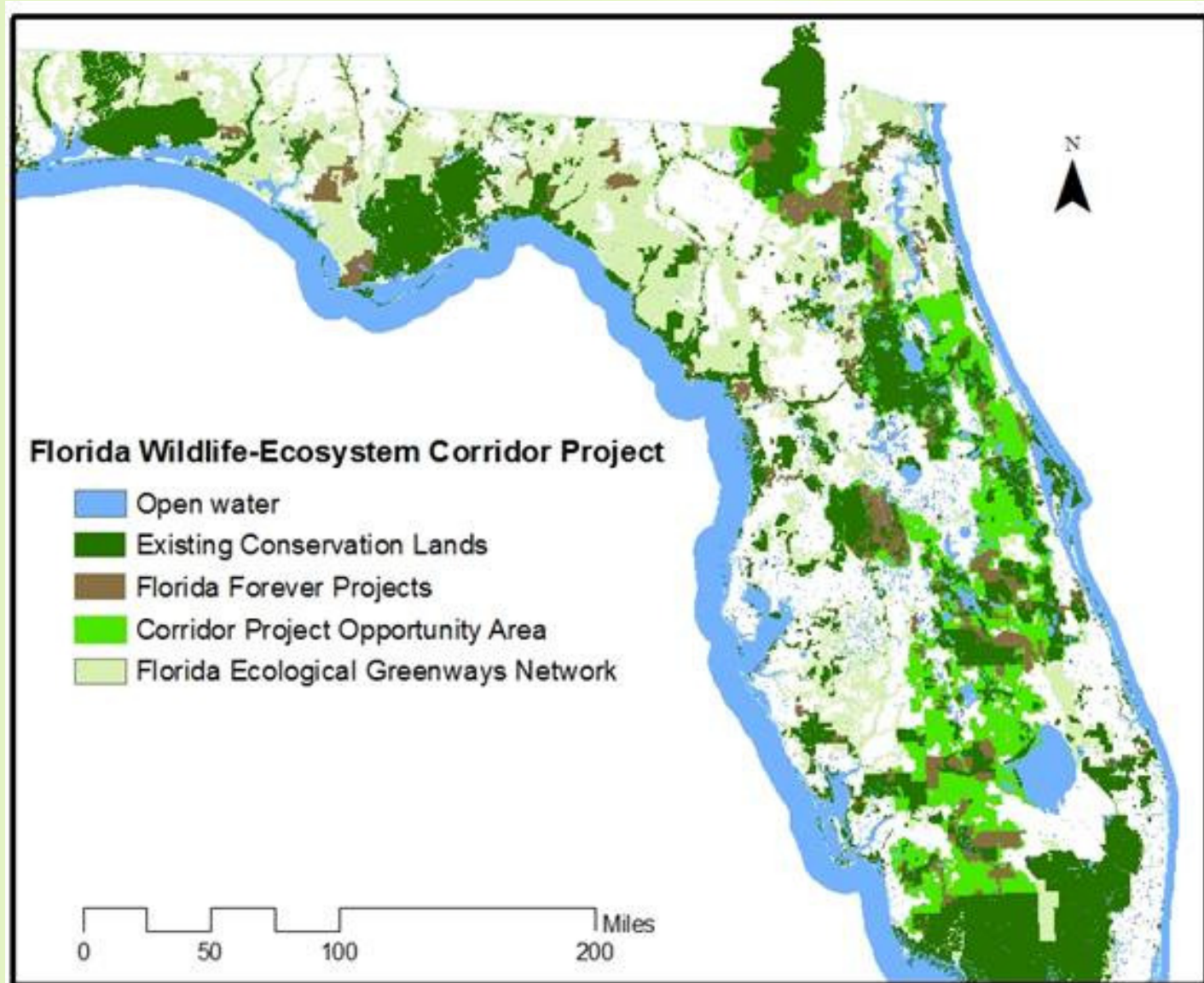


These maps show Florida at today and how it could look if its population doubles, as projected by the 2060 scenario.

<https://www.youtube.com/watch?v=BjeJZQ0JJcU>

https://www.youtube.com/watch?v=X7f_J4Dn

The Good News!



Human Impact on Ecosystems

ISN pg 256-257

- Use Ch. 16.1, 16.2, 16.3, 16.4, 16.5
- Read and complete page using detail
 - read for understanding, don't skim

REVIEW

Words of the Day

- | | |
|------------------------|--|
| 1. Symbiosis | ■ Close, long term relationship → 3 types: |
| 2. Parasitism | ■ Relationship in which one benefits & the other is harmed |
| 3. Mutualism | ■ Relationship in which both species benefits |
| 4. Commensalism | ■ Relationship in which one benefits & the other is not affected |
| 5. Biodiversity | ■ Variety of living things in a community
→ the more diverse → the more stability |

REVIEW

Words of the Day

6. **Biome**

- Major community that covers a large area – has certain soil type, rain amount, temp, etc

7. **Predator**

- One that does the hunting; It's population affects the # of prey

8. **Prey**

- One that is hunted; It's pop. Size affects the # of predators

9. **Plankton**

- Free floating organisms in ocean that may photosynthesize & provides 40% of oxygen

REVIEW

Words of the Day

- | | |
|-----------------------|--|
| 10. Acid rain | <ul style="list-style-type: none">■ formed from both natural sources, such as volcanoes and decaying vegetation, and man-made sources, primarily emissions of <u>sulfur dioxide (SO_2)</u> and <u>nitrogen oxides (NO_x)</u> (fossil fuel combustion) |
| 11. Ozone | <ul style="list-style-type: none">■ In upper atmosphere, filters potentially damaging UV light from reaching Earth's surface. Damaged by CFCs |
| 12. Green-house gases | <ul style="list-style-type: none">■ Gases that trap heat in atmosphere<ul style="list-style-type: none">■ <u>Earth's atmosphere include</u><ul style="list-style-type: none">■ water vapor, carbon dioxide, methane, nitrous oxide, ozone, and chlorofluorocarbons.■ Determines temp of Earth; W/O them planet would likely be too cold, uninhabitable. Human activities have an impact upon the levels of greenhouse gases in the atmosphere |

How Living Things Interact with Their Environment

1. Archeologists find that the disappearance of a large mammal occurred shortly after the arrival of hominids (humans) in a certain region. What most likely occurred between these two species?
 - A. dispersion
 - B. predation
 - C. commensalism
 - D. parasitism

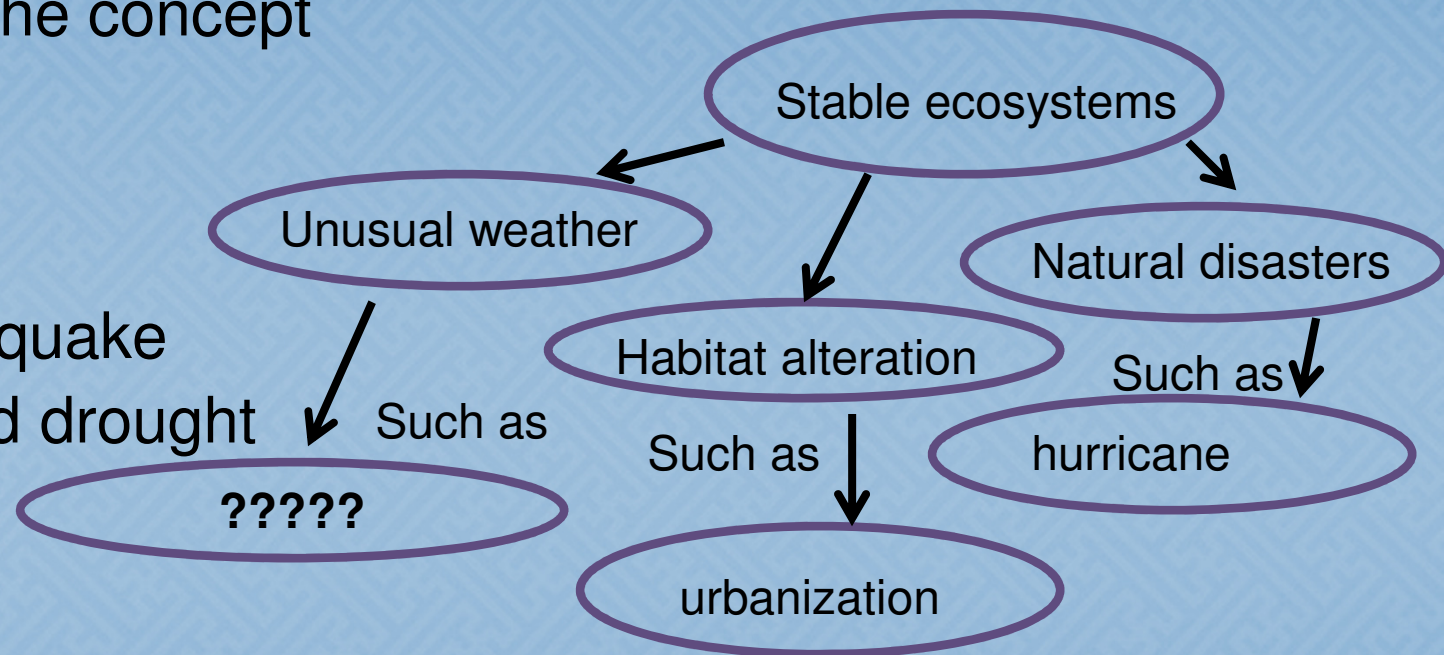
How Living Things Interact with Their Environment

2. Officials attempt to control the spread of an exotic wildflower species by introducing its natural predator, a beetle. Unexpectedly, the beetle population grows exponentially and begins to eat local crops. What best accounts for this unexpected population explosion?
- A. Adaptive radiation allowed the beetle population to evolve faster.
 - B. The beetle population has few predators in the new habitat
 - C. The wildflower and the local crops are genetically similar kinds of plants
 - D. The beetle has different nutritional requirements in the new habitat

How Living Things Interact with Their Environment

3. Which of these best completes the concept map?

- A. smog
- B. pollution
- C. An earthquake
- D. Extended drought



Use the letters on right to answer

4. When both organism benefit from the relationship.
5. When one organism uses the resources of another organism
6. When one organism benefits and the other is harmed
7. When one organism benefits and the other get nothing
8. When one organism eats another

- A. Commensalism
- B. Mutualism
- C. Parasitism
- D. Competition
- E. Predation

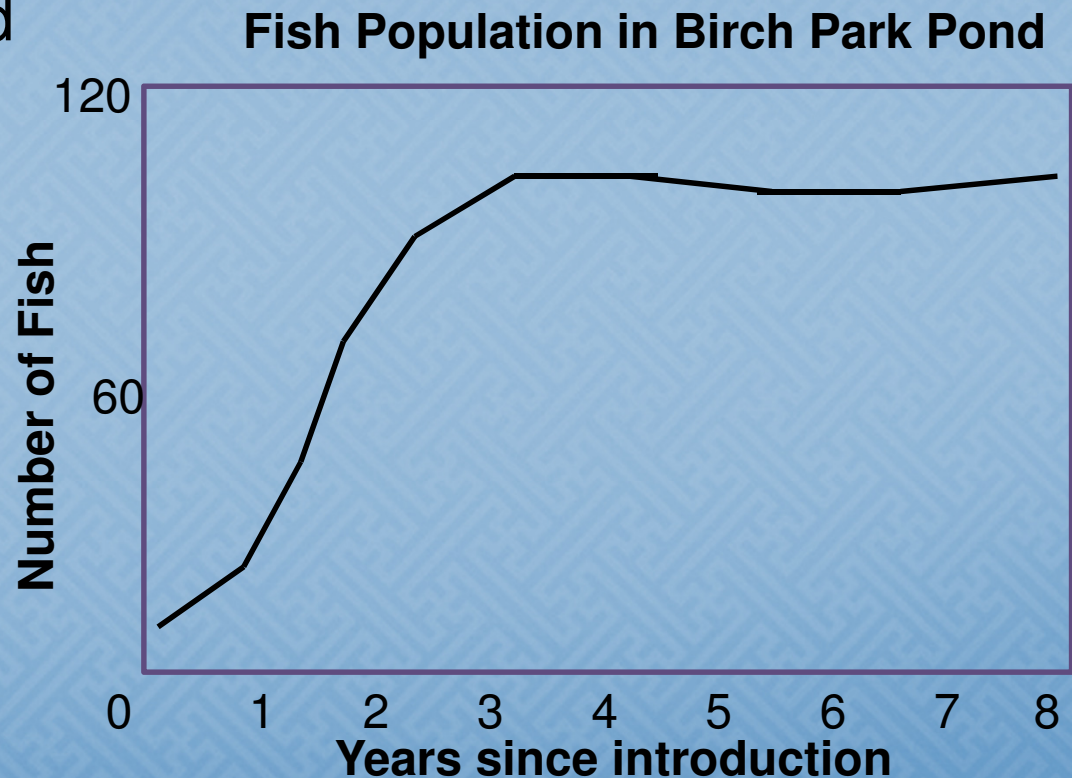
Energy Pyramid

9. A population of rodents becomes stranded on a remote island. Eventually, the population reaches the island's carrying capacity. At this point, the birth and death rates are
- A. Relatively equal
 - B. crashing
 - C. Density independent
 - D. Density dependent

Energy Pyramid

10. A species of fish is introduced to a park pond. Which statement best describes the population growth of these fish shown in the graph?

- A. The fish stopped growing b/c they stopped reproducing.
- B. The population stopped growing b/c this species of fish lives less than one year.
- C. The population grew until disease caused the population to level off
- D. The population grew until it reached the pond's carrying capacity.



11. CO₂ is important in our atmosphere because it is required for photosynthesis and it traps some heat, keeping Earth warm. However, human produced CO₂ is a problem because it

- A. Leads to higher global temperatures
- B. Disrupts the natural cycling of other greenhouse gases
- C. Adds too much CO₂ to the oceans
- D. Causes uncontrolled photosynthesis

12. Which situation would most efficiently decrease the size of a field mouse population?

- A. Decreased death rates and emigration
- B. Decreased death rates and immigration
- C. Increased death rates and immigration
- D. Increased death rates and emigration

13. The non native zebra mussel was first found in a lake near Detroit in 1988. By 1989, it had colonized all Great Lakes waterways. Which scenario is most likely true regarding the introduction of this species?

- A. Native fish naturally eat zebra mussels
- B. The higher biodiversity leads to healthier lakes.
- C. They compete with native mussels for food and other resources
- D. Native mussels populations are growing rapidly

14. In many parts of the United States, native plants that once grew on the forest floor have been replaced by garlic mustard, an invasive species that thrives in cool forest understories. This situation is an example of

- A. parasitism
- B. Primary succession between species
- C. Predation between species
- D. Competition between species

Population Growth Curves

15. The graph shows what type of growth curve?

- A. Exponential
- B. Logistic
- C. J-shaped
- D. Boom and bust

16. On the graph "A" represents the:

- A. Survivorship
- B. Birth rate
- C. Carrying capacity
- D. Dominance hierarchy

17. On the graph, the X axis is:

- A. Number of individuals
- B. Number of deaths
- C. Time
- D. Temperature

