# BIODIVERSITY:
## CHAPTER 6.3

**BIODIVERISTY (Define):**

**TYPES OF BIODIVERISTY:**

✓ The variety of habitats, communities, and ecological processes in the biosphere is…..

✓ The number of different species in the biosphere or in a particular is…

✓ Refers to the sum total of all different forms of genetic information carried by a given species, or by all species on Earth…..

**VALUING BIODIVERSITY:** Briefly describe threee (3) different ways that biodiversity benefits society:

1.

2.

3.

**THREATS TO BIODIVERSITY:**

✓ There are many ways in which biodiversity can be threatened, such as

✓ What are two (2) reasons that habitats may be altered:
  o

  o

✓ Looking at all of the threats to biodiversity, what /who is the main cause for all of them?

> Altering habitats
> Hunting
> Invasive Species
> Pollution
> Driving Climate Change

CONSERVING BIODIVERSITY: Give a brief description of the following…..

1. Protecting Individual Species:

2. Preserving Habitats and Ecosystems:
   ➢ Define "Ecological Hotspot"

3. Considering Local Interests:

# MEETING ECOLOGICAL CHALLENGES:
## CHAPTER 6.4

**ECOLOGOCAL FOOTPRINTS (Define):**

**List the different aspects that are taken into account when calculating an ecological footprint:**

✓ What are the limitations to calculating a "footprint"?

# CHAPTER 6.3 AND 6.4 PRACTICE..............

*For Questions 1–5, write True if the statement is true. If the statement is false, change the underlined word or words to make the statement true.*

_____ **1.** The current rate of species loss is <u>10</u> times the typical rate of extinction.

_____ **2.** The smaller a habitat "island," the <u>larger</u> the number of species that can live there.

_____ **3.** Habitat fragmentation <u>increases</u> the impact of hunting on endangered species.

_____ **4.** <u>Endangered</u> species can become invasive and threaten biodiversity.

_____ **5.** The increased concentration of carbon dioxide in air is making oceans <u>more acidic</u> and putting stress on coral reefs.

6. What are five ways that human activity reduces biodiversity?

_____

_____

_____

7. Identify three reasons why endangered species are hunted.

_____

_____

8. How can introduced species lead to economic losses?
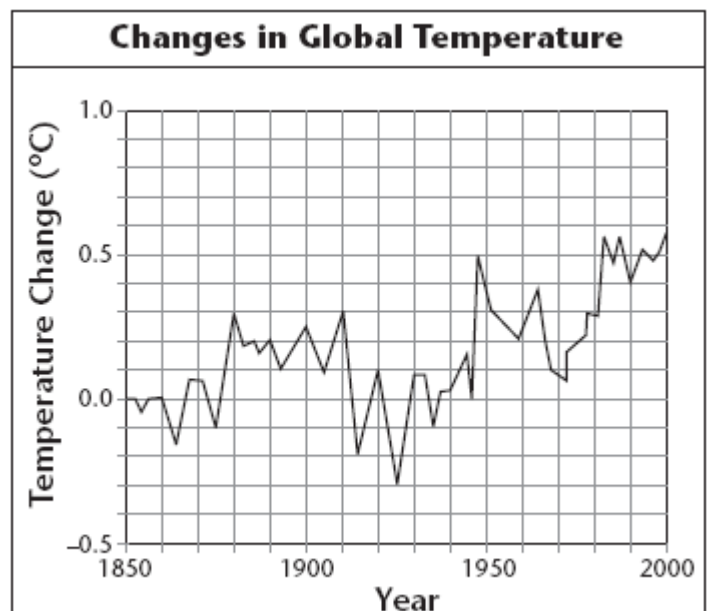
_____

_____

_____

9. How does climate change threaten biodiversity?

_____

How does the change in global temperature between 1850 and 2000 compare with the change that occurred between 1850 and 1880?

**10.** _____

_____

_____

**11.** List three factors that may have contributed to the trend shown in the graph.

_____

_____

**12.** Suggest three possible effects of global warming on the future of the biosphere.

_____

_____



**Changes in Global Temperature**

| Examples of Ecology in Action | | |
|---|---|---|
| **Environmental Change** | **Cause** | **Behavior Change Needed** |
| Hole in the ozone layer | | |
| Declining numbers of fish in the oceans | | |
| Global warming and climate change | | |

| Table I. How Many Species Are There? | |
|---|---|
| **Groups of Species** | **Number** |
| Plants | 250,000 |
| Roundworms | more than 15,000 |
| Mollusks | 50,000–200,000 |
| Crustaceans | 40,000 |
| Spiders, mites | 75,000 |
| Insects | more than 1,000,000 |
| Vertebrates | 60,000 |

| Table II. Organisms Listed as Endangered in the United States | |
|---|---|
| **Type of Organisms** | **Number of Endangered Species** |
| Mammals | 63 |
| Birds | 78 |
| Reptiles | 14 |
| Amphibians | 10 |
| Fishes | 70 |
| Snails | 20 |
| Clams | 61 |
| Crustaceans | 18 |
| Insects | 33 |
| Spiders | 12 |
| Flowering plants | 565 |
| Conifers | 2 |
| Ferns and other plants | 24 |

**14.** Which group in Figure 6–2, Table I is the most diverse?

_____

**15** Which group in Figure 6–2, Table II has the most endangered species?

_____

**16** Which table in Figure 6–2 tells you about the numbers of species whose population size is declining in a way that places it in danger of extinction?

_____

**17** After 10 years, if conservation efforts to protect entire ecosystems succeed, how would Table II in Figure 6–2 likely change?

_____

_____

**18.** Discuss the importance of biodiversity to the field of medicine. Give an example of a medicine derived from a plant.

**19.** What is the difference between captive breeding programs and ecosystem preservation in terms of conservation biology? Describe how conservation groups are working to protect biodiversity.