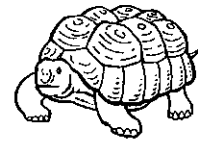




## 20.1

## Endangered Species II—Who Cares?

### Background Information



Many people have heard about **threatened** or **endangered** species, such as the wolf, bald eagle, elephant, and giant panda. Most people would agree that it would be nice to help protect these charismatic species. But what about small species, or plants, or animals, such as fish, snails, or insects, or even fungi? What about species that you will never actually see? Are there reasons why we should care about them and take actions to help protect them?

Species have been becoming **extinct** since life first formed on Earth four billion years ago. Most species that have ever lived are now extinct. But that does not mean that extinction is nothing to be concerned about. The rate of extinction has vastly accelerated in the last few decades, and most extinctions today are due to the activities of one species—*Homo sapiens*, humans.

One reason to preserve species is because they may have economic or medical importance to us. Many of the products that we use every day are made from plant and animal products. New uses for plants and animals are found daily. Many medications are made from plants. Some of the species that people have utilized for years are endangered. A species that has not even been discovered yet may yield an important new product, food, or medicine.

Wild species of plants and animals also provide us with a genetic insurance policy. For example, there are over a hundred varieties of corn, but almost all of the corn grown for human consumption comes from less than ten varieties. If a disease or some other problem reduces the ability of those few varieties to produce food, we will need the **genetic diversity** provided by the other varieties. **Biodiversity** is becoming increasingly important to us.

Wild plants and animals provide a source of beauty, wonder, and joy for millions of people. To lose the great diversity of life on Earth impoverishes all of us for **aesthetic** reasons as well as practical ones. In addition to the purely aesthetic values of wildlife, many species have **recreational value**. Hunting, fishing, bird-watching, photography, and other recreational uses of wildlife are enjoyed by millions of people.

As scientists try to learn more about life on Earth, about ecology and evolution, about botany and zoology, they study the organisms living in various ecosystems. Every species in an ecosystem has a particular role or niche, and the loss of a species reduces our ability to learn from it. Every species of life on Earth has purely **scientific and ecological value** in addition to whatever other value it may have. Biodiversity is important to all organisms.

Perhaps the most important reason to care about other life forms is simply because **it is the right thing to do**. What right do we as humans have to hasten the extinction of other species of life, especially if they are of no threat to us? The ability of humans to think, reason, and make value judgments is one of the characteristics that, supposedly, sets us apart from most other species. Is it ethical for us to use our awesome power to destroy entire species of life?

## 20.2

### Endangered Species II—Who Cares?

#### Assignments

#### Part I: Hard Choices

Assume that you are a wealthy philanthropist with money that you want to use to save endangered species. You have only enough money to save one of the species listed below. Number the plants and animals in the order that you would select them for saving. Use #1 for the species that you would save first.

After each member of the class has selected his or her personal choices, the class will form teams to come up with a priority list that the team agrees upon. This team list needs to be a **consensus** agreement. Everybody needs to agree on the sequence, rather than just voting.

#### #1 is the first to be saved

<i>Endangered Species</i>	<i>My Priorities</i>	<i>Team Priorities</i>
Apache trout	_____	_____
Arizona cliff rose	_____	_____
Blunt-nosed leopard lizard	_____	_____
California condor	_____	_____
Giant carrion beetle	_____	_____
Giant panda	_____	_____
Hawaiian crow	_____	_____
Oahu tree snail	_____	_____
Pitcher's thistle	_____	_____
Red-footed tortoise	_____	_____
Salt marsh harvest mouse	_____	_____
Schaus swallowtail butterfly	_____	_____
Texas blind salamander	_____	_____
Wyoming toad	_____	_____

#### Part II: Aardvark Ads

Your job is to design an advertisement for one of the following organisms. While these are not endangered species, they play an important role in their environments. Your teacher may add to or subtract from the list. Your advertisement might be a poster, a magazine ad, a television ad (acted out for the class or videotaped), a PowerPoint presentation, or a radio (audio-tape) commercial.

Activity 20.2: Endangered Species II—Who Cares? (Continued)

With your partner(s), learn as much as you can about the organism, plan your advertisement, produce the ad, and present it to the class on the due date.

Remember: Your goal is to convince the class that this organism is wonderful!

Our advertisement data is due: \_\_\_\_\_

Bread mold	Yeast	Moss	Rhinovirus
Dandelion	Crabgrass	Garden snail	Liver fluke
Starling	Crow	Gopher	House mouse
Rattlesnake	Fence lizard	Housefly	Mosquito
Puffball mushroom	Poison oak or ivy	Sucker fish	Tapeworm
Black widow spider	Head louse	Tarantula	Garden slug
Garden toad	Striped skunk	Coyote	Centipede

### Part III: Endangered Species Research Assignment

On the due date given by your teacher, you are to submit a research report on an endangered species. You are also to give a short oral report to the class about your organism.

#### Due dates

Written report: \_\_\_\_\_ Oral presentation: \_\_\_\_\_

In your written report, be sure to give the source(s) of your information. Use the format suggested by your teacher. Your report should include the following information:

- Organism name (common, scientific)
- Picture or drawing of the organism
- Range: where it originally lived; where it now lives
- Population: how many are still alive in the wild; in captivity
- Any special or unique things of interest
- What caused it to become threatened or endangered
- What is currently being done to help the species
- What students can do to help
- Sources of information (author, title, date, publisher, page numbers; Web site URL)
- Other: \_\_\_\_\_

## 20.3

### Endangered Species II—Who Cares?

### Questions

1. Why is it important to save plant species?

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2. Why is it important to save invertebrate species?

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3. List three reasons to protect species that you as an individual may never see.

a. \_\_\_\_\_

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b. \_\_\_\_\_

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c. \_\_\_\_\_

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4. What is "biodiversity," and why is it important?

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5. What are some ways that you can help protect species of plants and animals?

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