Wild Kids

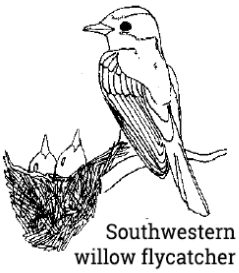
Endangered Wildlife in Arizona

STUDENT GUIDE

More than 800 different kinds of fish, amphibians, reptiles, birds, and mammals live in Arizona. Of these, more than 60 are threatened or endangered species. An **endangered species** is one that is in danger of becoming extinct in all or most of its range. **Extinct** means there are no more animals of that species in the wild or in zoos. An extinct species can be thought of as "gone forever." A **threatened species** is one that is likely to become endangered in the future. Why might animals become endangered?

Habitat Loss

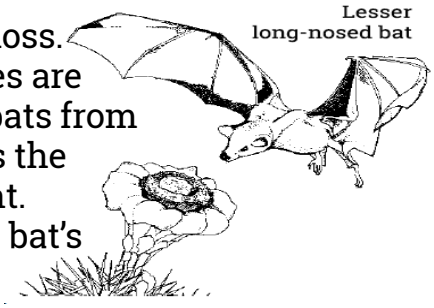
Habitat provides everything an animal needs to survive: food, water, shelter and space. If an animal's habitat is changed, and it can't find the resources it needs, it may become endangered. Wildlife habitat is changed or lost when forests are cleared, roads are built through wetlands, or when rivers are dammed. Habitat loss is the biggest problem for wildlife today.



Southwestern willow flycatcher

The Southwestern willow flycatcher is endangered due to loss of habitat. This bird's scientific name means "mosquito king" because of the large number of insects it eats! The Southwestern willow flycatcher lives in riparian areas (near streams and water). Riparian areas are disappearing as people pump water out of the ground and dam rivers.

The Southwestern willow flycatcher has another problem - the bird is a nest parasite of the flycatcher. It lays its egg in the flycatcher's nest then flies away, letting the flycatcher feed and raise its young! Because the cowbird chick is bigger than the flycatcher chicks, it gets more food. The flycatcher chicks may not get enough food to survive.



Lesser long-nosed bat

The Lesser long-nosed bat is also endangered due to habitat loss. This bat lives in large groups in caves and mines. When mines are closed or gated to keep people out, this can also prevent the bats from using the mine. Another threat to the lesser long-nosed bat is the disappearance of one of its main food sources, the agave plant. When people cut down agave plants, an important part of the bat's habitat is lost.

Introduced Competition

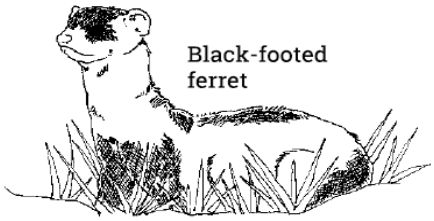
Many of our native fish are endangered because fish from other places have been introduced to Arizona. The introduced fish often eat native fish or their eggs, and compete with native fish for food. Other threats to native fish include loss of aquatic habitat and damming of rivers, which changes the temperature of the water. The Razorback sucker is an endangered fish that can live 40 years or more. But few of them reach adulthood because introduced fish eat young razorbacks.

Contaminants

Insecticides and other chemicals can contaminate and pollute the air and water, making it unhealthy for wildlife. The bald eagle and peregrine falcon were affected by insecticides. Bald eagles ate fish that had eaten insects sprayed with insecticides. The insecticide DDT caused eagles to lay eggs with thin shells. When the eagles sat on their eggs, the shells cracked. This caused a decrease in the number of bald eagles. In Arizona, bald eagles are also threatened by loss of habitat.

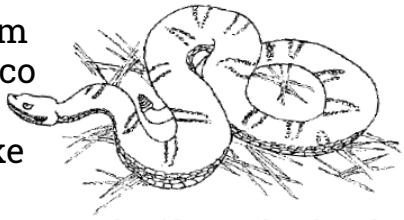
Disease

Usually disease does not cause a species to become endangered. But in the case of the black-footed ferret, disease added to the ferret's problems. Black-footed ferrets were already in trouble because prairie dogs, their main food source, were being poisoned and killed. As the number of ferrets decreased, it didn't take long for a disease called distemper to nearly wipe out the few existing ferrets. But, a small group of ferrets survived and were brought into zoos. In 1996, The black footed was reintroduced to Arizona and populations still exist in the northern part of the state.



Exploitation

One type of exploitation is when too many animals are taken from the wild to be sold as pets or studied for research. The New Mexico ridgenosed rattlesnake is found only in a few places in Arizona. Because it is a rare snake, an illegal trade has developed for snake collectors that may further threaten the Arizona population.



New Mexico ridgenosed rattlesnake

Another type of exploitation is when too many animals of a species are killed, as in the case of the Mexican gray wolf. In the early 1900s, Mexican wolves were common in Arizona. About this time settlers arrived, bringing cows and sheep with them. The settlers competed with wolves for the same prey animals (elk and deer). As elk and deer populations decreased, wolves sometimes killed livestock. As a result of this, wolves were viewed as a threat and were hunted and trapped until there were no more wolves in the southwest. In 1998, the Mexican gray wolf was reintroduced to eastern Arizona in an attempt to help it survive in the wild.

Research an Endangered Species in Arizona

Write a report about an endangered species in Arizona.

1. Use the library, internet and other resources, to research a threatened or endangered species found in Arizona. You may also consider visiting the Arizona Game and Fish Department's website: www.azgfd.com
2. Find out why the animal is threatened or endangered.
3. Be sure to include a description of the animal's habitat.
4. Draw a picture of the animal in its habitat. Include its food, water and shelter.

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TEACHING GUIDE

Overview

In this activity, students will read an article about endangered species. Through the reading, they will become familiar with some examples as well as the reasons why those animals have become endangered. Then, they will research an animal in more detail and write a report.

Grade
4th

AZ Science Standards
- 4.L4U1.11

Science and Engineering Practices
- Obtain, evaluate and communicate information
- Analyze and interpret data

Crosscutting Concepts
- Stablility and Change

Suggested Procedures

1. Print the worksheet above. If possible, print it double sided.
2. Ask students to read the entire article (both pages).
3. Ask some questions to assess student comprehension:
    - What is the main reason why most animals become endangered?
    - What are some other reasons why animals might become endangered?
    - In your opinion, what is the easiest threat to wildlife that we could solve? What could we do?
4. Have each student read the final part of the reading again. Ask them to select an animal they want to research. If possible, try to choose one that was not included in the article.
5. Give students time in class or as homework to complete their research and illustrations.
6. Once the students have finished their reports, have each one share. They should briefly describe their animal and explain the major reasons why that animal is extinct.
7. To recap, ask the following questions:
    - Based on the student reports, what seems to be the most common reason for animals to become endangered? Does that match up with the reading?
    - Animals often go extinct because they cannot adapt to the changes. Which of these reasons do you think is the hardest for animals to adapt to? Why?