

Prairie Basics

Do you know what makes a prairie a prairie? Let's test your knowledge—put on your thinking cap and fill in the blanks below. Use the word bank to help you complete the sentences, but use each word in the word bank only once.

The main plants that grow on the prairie are _____ .

Prairies are usually _____ or have rolling hills.

The prairie is one of the most endangered _____ on the planet.

There are many kinds of plants and animals on the prairie, and this is called bio _____ .

Prairies have few or no _____ .

There are three kinds of prairie in North America; tallgrass prairie, short grass prairie and _____ grass prairie.

Word Bank

habitats

flat

diversity

grasses

trees

mixed

Does your group think the prairie looks the same today as it did when the first settlers arrived? If your group says no, you are right! Together, list some ways that the prairie looks different today than it did before settlers arrived. Here is an idea to get you started: There are many more trees on the prairie now than when the settlers arrived.

Gone are the grizzly bears

Grizzly bears once roamed the prairie in search of food, water, shelter and space. Now there are no bears wandering the plains. The grizzly bear requires large areas of habitat with large food supplies and access to constant and clean water to survive. In the space below, write two reasons your group thinks that the grizzly bear no longer roams the prairie.

Grizzly bears are officially classified as carnivores, or animals that eat meat. But it may be more accurate to think of them as omnivores. Below are three possible definitions for omnivore; circle the best one.

An animal that eats plants

An animal that eats insects

An animal that eats meat and plants

Grizzly bears are large predators. It is important for a habitat to have the right number of predators. If the predators are taken out of the habitat, the habitat will change. Below is one thing that changed when grizzly bears disappeared from the prairie and two things that did not. Draw a circle around the thing that changed.

Prairie grasses stopped growing.




Populations of animals like deer and elk increased.

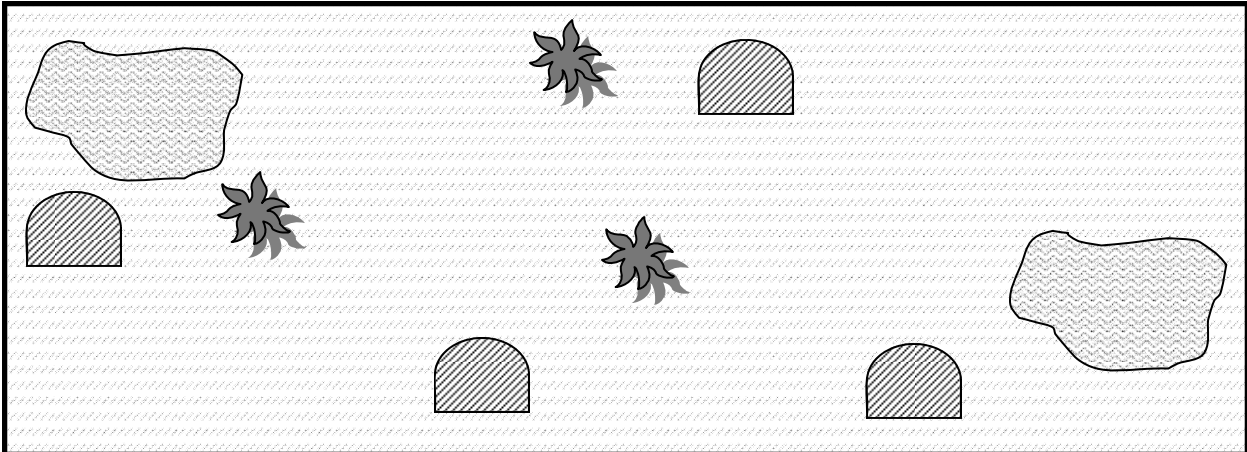
The number of elephants on the prairie increased.

How many deer live here?

All habitats have a limit of how many animals of each species can live there. This is called **carrying capacity**. Carrying capacity is determined by the amount of food, water, shelter and space available to each animal. Use the diagram below to help you answer the questions about the carrying capacity of deer for the habitat.

Legend

-  **Food**—each food plot can accommodate 3 deer
-  **Water**—each body of water can accommodate 5 deer
-  **Shelter**—each shelter can accommodate 2 deer



There is enough food for _____ deer.

There is enough water for _____ deer.

There is enough shelter for _____ deer.

How many deer can live in this habitat? _____

If three more food plots were added would more deer be able to live here? Why or why not? _____

If you were the owner of this property and you wanted to have more deer on your land what are some things you could do to increase the deer carrying capacity?

We all live downstream

River otters once called the rivers of the prairies home, but not anymore. Most of the habitats that otters once used have changed, and the otters no longer live in them.

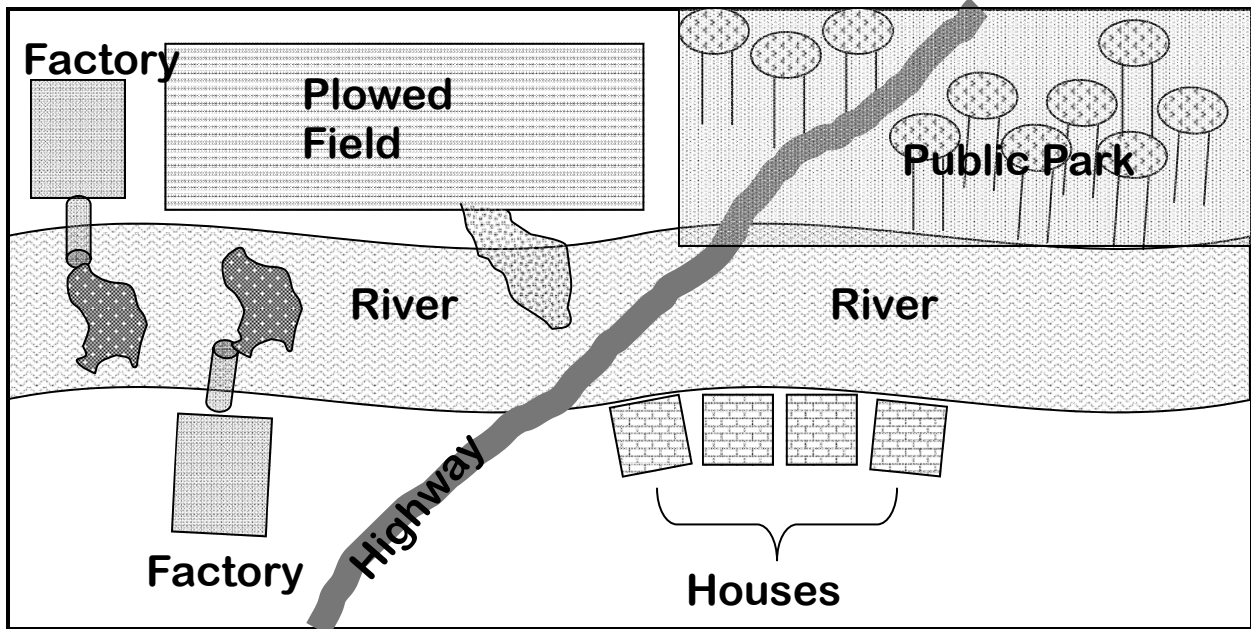
Your group is going to become a group of wildlife biologists and decide if you should reintroduce (bring back) otters to a habitat. Brush up on your otter needs below. After you have read all of the otter requirements, look at the map on the next page. Your group must decide if you will reintroduce otters to this habitat. Use the questions below the map to help make your decision.

Otter Requirements

- ◆ **Otters need fresh water (not salt water) to survive**
 - ◇ Otter water should not be polluted by chemicals or trash.
 - ◇ Pollution in the water usually hurts not only the otter but its favorite food—fish.
 - ◇ Otter water should not have a lot of sediment (dirt) in it.
 - ◇ When too much sediment (dirt) gets into the water, the otter's food (fish) may leave the habitat.
 - ◇ Sediment makes it hard for the otter to hunt and keep its fur clean and healthy.
- ◆ **Otters need space along the riverbank**
 - ◇ Otters need space with out people or activity in order to feel safe, hunt for food and breed.
 - ◇ Disturbances like cars and farming fields may cause the otter to seek a quieter, calmer habitat.
- ◆ **Otters need suitable shelters**
 - ◇ Otters often use the abandoned burrows of other animals living in the habitat.
- ◆ **Otters need a healthy supply of food**
 - ◇ Otters eat a variety of fish and crayfish (crawdads).
 - ◇ Otters will also eat amphibians, reptiles, insects, birds and small mammals.

We all live downstream (Continued)

Map of proposed otter reintroduction site



What kind of water do otters require? _____

Does the water in the map seem to meet that need? **YES** **NO**

Explain your answer. _____

What kind of space do otters require? _____

Does the space in the map seem to meet that need? **YES** **NO**

Explain your answer. _____

What kind of shelters do otters require? _____

Based on the map, do you think otters would be able to find shelter in the habitat? **YES** **NO**

Explain your answer. _____

Based on your answers to the questions above, does your group believe that this is a good habitat to reintroduce otters to? **YES** **NO**

If your group answered no to the above question, what could be done to improve this habitat to make it suitable for otters?

The weight of the prairie is on their shoulders: Keystone species

A keystone species is an animal species that many other animals depend on for a variety of things like food or shelter. Without the keystone species, the habitat would change and some animals may become extinct. Two prairie keystone species are the bison and the prairie dog.

Bison can be thought of as the gardeners of the prairie. They have many behaviors that help the plants of the prairie survive and thrive!

Bison Wallows

Many wild animals, including bison, roll in the dirt and dust. This behavior helps the animal rid itself of parasites and bugs in its fur or on its skin. Bison use their hooves to break up dirt and then roll in it. Often times many bison will use the same spot for a wallow. This makes a depression or dip in the ground. During the spring, these depressions fill with water and provide an aquatic habitat for a group of prairie animals for a short time. Below are three kinds of animals that may or may not use the wallows as a habitat. Circle the best answer.

Whales

Amphibians like frogs and salamanders

Ducks

What does your group think that these animals use these wallow pools for?

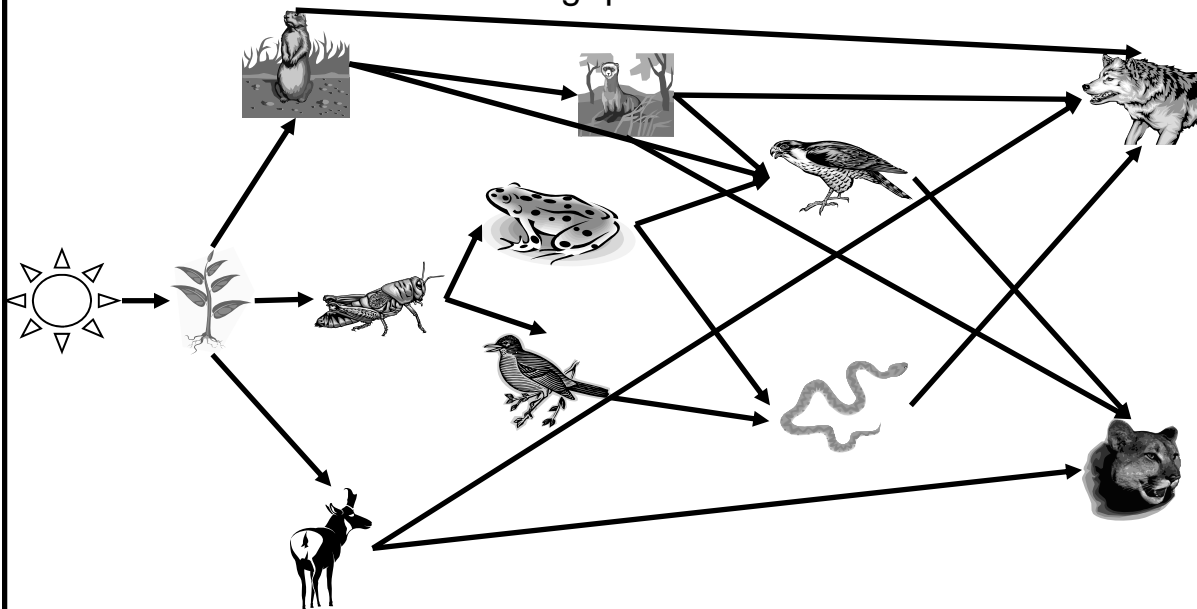
Bison also help spread seeds of prairie plants. They eat the leaves, stems and seeds of the plants. While the stems and leaves are broken down and digested the tough seeds are not broken down. Not only do they exit the body of the bison whole, they are packed in a great fertilizer and have an advantage when the growing season begins! There is another equally important way that bison can help spread seeds—it has to do with their fur. Do you know what it is? Write your answer in the space below. There is a hint below if you are stuck.

Hint—Think about what would happen if you were to walk through the tall grass wearing a fuzzy shirt or pants.

The weight of the prairie is on their shoulders.

Keystone species

Prairie dogs are considered a keystone species for many reasons. One reason is that their abandoned burrows provide shelter for burrowing owls, snakes and many other animals. A second reason is that they help maintain the health of the prairie plant community by spreading seed and loosening the soil. A third reason prairie dogs are considered a keystone species is because they provide food for many animals. Without prairie dogs, the prairie food web would change if not fall apart. Use the food web below to answer the following questions.



How many animals in this food web eat prairie dogs? _____

How many animals in this food web eat wolves? _____

What animals would be affected first if the plants were removed from the food web? _____

What kind of effect do you think it would have on these animals? _____

What would happen if the wolves were taken out of the food web? _____

Do you think it would be good or bad to take the wolves out of the food web? Why?
