



# education

## **Prairie Chicken Pageant**

### **Grades 3 - 5**

#### **Overview:**

In this lesson, students will learn about the challenges of saving the prairie-chicken in its American [habitat](#) . They will study the habits of prairie-chickens and learn about what is being done to save them, and the conserve the areas in which they live.

#### **Connections to the Curriculum:**

Geography, science, drama, art

#### **Connections to the National Geography Standards:**

Standard 14: "How human actions modify the physical environment"

Standard 16: "The changes that occur in the meaning, use, distribution, and importance of resources"

#### **Time:**

Two to four hours

#### **Materials Required:**

- Computer with Internet access

#### **Objectives:**

Students will

- learn about threats to the prairie-chicken and its habitat;
- propose creative solutions to prairie conservation issues;
- describe conservation challenges of the prairie-chicken; and
- discuss current efforts to protect prairie-chickens.

#### **Geographic Skills:**

**Asking Geographic Questions**

**Acquiring Geographic Information**

**Answering Geographic Questions**

**Analyzing Geographic Information**

## **S u g g e s t e d P r o c e d u r e**

#### **Opening:**

Ask students what they think of when they think of chicken. If they say

"food," ask them if they know where those chickens come from (e.g., a farm). Have they ever heard of a wild chicken? Explain that there is a very special species of bird, the Attwater's prairie-chicken, that is an endangered species in the North American [prairies](#) . Emphasize that it is actually NOT a chicken but a species of grouse (and a relative of the chicken's predomesticated ancestors), and a highly endangered prairie bird.

**Development:**

The Attwater's prairie-chicken is a subspecies of *Tympanuchus cupido*, the greater prairie-chicken, that once ranged across six million acres of Louisiana and Texas coastal grasslands and numbered a million strong. It has since suffered great losses due to uncontrolled hunting in the nineteenth century. In the twentieth century, habitat loss and fragmentation have applied what may be the last straw.

The Attwater's prairie-chicken is disappearing as rapidly as the habitat it requires to survive: less than 3% of its original habitat remains. Moreover, the habitat remnants are fragmented, making isolated chicken populations susceptible to weather extremes, land-use changes, predation, and disease. Native coastal prairie is essential to the survival of the Attwater's prairie-chicken. Young prairie-chickens eat mostly insects, but the adults are primarily herbivorous, living on foliage, flowers, and sometimes seeds and insects. In addition to food, the grasslands provide lekking (gathering and courting) areas, nesting sites, and shelter from predators such as raccoons, coyotes, and skunks.

Studies of the Attwater's prairie-chicken have shown that it is extremely sensitive to changes in its environment.

Tell the students that they will now be performing a prairie-chicken pageant or presentation. Divide them into five groups. Hand out the descriptions below, one to each group, and explain that each group will develop a skit or presentation based on the card it receives. The topics are: 1) prairie-chicken daily life; 2) prairie-chicken mating dance; 3) historical conservation challenges; 4) saving a place for the prairie-chicken; 5) what can we do to help. [Note: The topics lend themselves to different types of presentations; depending on the age of the students, you may want to give them specific directions or allow them to decide for themselves. For more advanced students, give them the topic of the card and have them develop the skit from their own research.]

***Prairie-Chicken Pageant /Presentation Cards:***

*Attwater's prairie-chicken daily life* Prairie-chickens live in tallgrass coastal prairie habitats. The birds use long grasses for nesting and short grasses for their amazing courtship dance and raising their chicks. They use both kinds of grasses for feeding. Young prairie-chickens eat mostly insects.

Adults eat mostly leaves, flowers, seeds and sometimes insects too. In addition to food, the grasslands provide mating areas, nesting sites, and shelter from predators such as raccoons, coyotes, and skunks.

After mating, a prairie-chicken female (hen) lays about a dozen eggs and they hatch about 26 days later. While the eggs are in the nest, and after they hatch as small chicks, many predators—opossums, skunks, raccoons, coyotes, snakes, and dogs—find them to be a tasty meal. Less than half the chicks make it to adulthood. Chicks stay with their mother for at least six weeks, eating mostly insects. As they grow older, they also eat leaves, flowers, and seeds of prairie plants.

*Attwater's prairie-chicken mating dance* The prairie-chicken performs a dance to attract a mate. Males gather in a large area called a "lek" where each male stakes out a space of his own. There he performs his dance, hoping that the most females will be attracted to him. The males make a "booming" sound during their courtship dance.

A male will also blow up his orange neck sacs, or "tympani," like balloons and stick up long feathers called "pinnae" from his neck. He will stomp his feet, then turn front and back a couple times.

A female will wander around in the lek, looking for the male she likes best. Once she chooses and mates with a male, she leaves the lek. She goes to make a nest in a shallow hole on the open prairie, within a mile of the lek. If her nest is destroyed early in the season, she will return to mate again.

Here's one way you can imitate the mating ritual. Can you think of others?

1. Stomp your feet in small little steps (like throwing a temper tantrum).
2. Puff up your cheeks as you stamp your feet.
3. Put your hands in fists at either side of your head and extend two fingers up and down while stomping feet and puffing up cheeks.
4. Make a "booming" sound, like the sound of air blown over the opening of a glass soda bottle.

#### *Save a place for the prairie-chicken*

The U.S. Fish and Wildlife Service (FWS) is trying to manage and protect land for the Attwater's prairie-chicken. On lands owned by the government, they encourage cattle grazing that is not too much, or too little. A moderate amount of grazing removes extra vegetation but still lets the birds find cover in the winter and enough vegetation to build nests. FWS also burns or mows some areas in the fall and early spring to encourage plants to

grow and keep some areas open for mating. Fire also helps to keep large trees from growing and clears away dead grasses that make it difficult for younger birds to get around. In addition, FWS keeps special areas where it grows food for the prairie-chickens.

The FWS and Texas Parks and Wildlife Department offer money to people who own land in the prairie-chicken's habitat. They use this money to pay landowners to help protect the birds by using the same grazing, mowing, and burning practices that FWS service uses to restore prairie-chicken habitat. Also, these agencies keep careful track of how the prairie-chicken population is doing, try to educate people about them, and breed them in captivity so that they will survive.

*Conservation challenges* Why are Attwater's prairie-chickens so endangered? The most important reason is habitat loss. A lot of prairie-chicken habitat has been destroyed or degraded for the building of new houses, malls, offices, and new roads. Changing natural areas to cropland for growing food or grazing cattle has also been a part of habitat loss. Another problem is introduction of species not native to the area. Several non-native trees have taken over coastal prairie and made it useless to the Attwater's prairie chicken. Many years ago, natural fires kept trees from growing past the edges of the prairie, but settlers once considered all fire to be bad and tried to stop nature's natural fires. Finally, because the Attwater's is so rare, with only about 56 birds left in the wild, they are also in danger of extinction when predators eat them, and they sometimes get sick.

*What can we do?* There are lots of things people can do to help the prairie-chicken!

- Support captive breeding programs where prairie-chickens can be carefully watched and then released into the wild.
- Create more habitat for the prairie-chicken! We can produce lots of birds in captivity, but it won't help that much if there is no place for them to live in the wild. Support wildlife refuges in prairie-chicken habitat working to buy more land for the prairie-chicken. Work with conservationists to convince private landowners who own prairie-chicken habitat to conserve some of their land for the birds. If you live in prairie-chicken habitat, you can also help to create or restore prairie habitat areas on our schoolyards and backyards, where there is enough room.
- Teach others about the amazing prairie-chickens! Hold a school-wide prairie-chicken festival, design posters, write songs and poems

- about the prairie-chicken.
- Get your school to reduce the amount of energy it uses, re-use what you can and recycle as much as possible. Reducing how much you use means you will use fewer natural resources and produce less pollution, leaving more healthy habitat for prairie-chickens and other wildlife species.

**Closing:**

After the pageant, have students ask each other questions about any part of the pageant. Why did they include what they did? What did they learn? Ask students if their school is located in an area where prairie-chickens once lived. Could they live there? Why, or why not? Could you provide habitat for on your schoolyard for any prairie animals? Which ones? Why, or why not?

If you live outside of a grasslands area, ask students to consider what key type of habitat their school is located in. Is it disappearing? What species are being affected by this habitat loss? Consider creating or restoring that type of habitat on your schoolyard.

**Suggested Student Assessment:**

Have students create a storybook about the prairie-chicken, translating their pageant into a book, with text and illustrations appropriate to their ability level.

**Extending the Lesson:**

Have students research a different prairie animal, its life cycle and conservation challenges. Have groups write the components of a prairie pageant and trade with another group. As a class, develop the criteria on which to judge their pageants.

*This lesson is adapted from Naturescope. Kit Prairies (National Wildlife Federation.).*