

Students take part in a role-playing game about the Florida panther to help them understand the complexity of the issues surrounding species, habitat conservation and human interests.

#### **Objectives:**

Students will be able to:

- Discuss the distribution of wild cats across the U.S.
- Identify positions of different groups involved in cat issues.
- Develop an understanding of the complexity of issues surrounding cat species and habitat conservation.

**Grade Level: 5-8, 3-4** 

#### **Subject Areas:**

language arts, geography, science, social studies

#### **Materials Needed:**

- IColored pencils or crayons
- role play cards
- Copies of Cat Range Maps, Wild Cats Cards, Florida panther factsheet and Range Mapping worksheet

Time to Complete:
Two class periods

#### **Background**

#### Why Care About Cats?

Jaguars, ocelots, cougars, lynx: cats are among the wildest and most powerful creatures of our land-scape, at once sleek and powerful, mysterious and breathtaking. Throughout North America, wild cats are part of our landscapes, our folklore, and our experience of the wild. Those who have glimpsed a jaguar in the wild or heard a cougar's scream carry over a silent landscape might say these experiences are some of the last echoes of wild America. Cats are powerful symbols of wilderness in the U.S., Canada, and Mexico, and, for many, they conjure up ethical, spiritual, and aesthetic reasons for preserving their place in the American landscape.

Beyond these more subjective arguments for conserving cats, there is also increasing scientific evidence that points to the critical role large carnivores play in regulating the ecosystems they inhabit. As top-level predators, these cats exert a force on their ecosystems which balances populations of their direct prey and helps to maintain native biodiversity at multiple levels of the food chain. The loss of top carnivores in the eastern U.S. , for instance, has likely contributed to the exploding numbers of white-tailed deer in this region. Elimination of dominant carnivores can also lead to growing populations of small - and mid-sized predators, such as raccoons, opossums, and skunks. Successful efforts to save wide-ranging carnivores will therefore benefit many other species that share the same ecosystems.

Most of North America's top carnivores are now restricted to small fractions of their original ranges. Cats are no exception. Populations of many North American cats are highly imperiled; some, like the Florida panther, have been pushed to the very brink of extinction. Most of North America's cats are protected by law in one or more countries, but in almost every case, their populations continue to struggle against a variety of threats.

Unfortunately, as science sheds more light on the crucial role these predators play in the natural world, the question of how best to save them remains largely unanswered. Because these cats rely upon a variety of private, public, and indigenous lands, their conservation demands cooperation between governments and individuals, as well as across international boundaries. Because they are wide-ranging, innovative approaches are needed to protect their habitats, such as land preservation, sustainable land uses, and/or selective human development and urban growth. Scientists still have much to learn about cats' precise ecological needs, and efforts to conserve cats and the landscapes they inhabit, will demand bold actions. These challenges also represent a great opportunity to conserve not only North America's cats but also the ecosystems they depend upon. Protecting these predators will help to ensure the health of the many landscapes they inhabit and extend conservation benefits to the species that share these habitats.

#### Florida Panther Update

Eight Texas cougar females, cousins of the Florida panther, were introduced to the Florida population in 1995 to bring new genes into the population, and seem to be helping improve the panthers' health. Captive breeding efforts are expensive and have been minimal, so for. These cots fill an important ecological niche as a top predator, their main prey being wild hogs and deer. They are also what is called an "umbrella" species, meaning that the protection of the home range of the panther will also provide conservation (or many other species that live in the same area. Pressures (rom human actions such as the sprawling development of southern Florida, are largely responsible for the loss of the panther's habitat, and therefore the greatest threat to its survival.

For the most current information visit the Florida Fish and Wildlife Conservation Commission website on Florida panthers at http://www.floridapanthernet.org.



#### Map Key



**Present Range** 



**Historic Range** 

#### **Procedure**

- 1. Ask your students, *Do any wild cats live in the United States? Where do they live?* Discuss with the class wild cats in North America and their conservation status, based on the information in the Background Section.
- 2. Distribute the Cat Range Map and Wild Cats Cards. Give your students time to review this information. Discuss your students' reaction to the maps and information. In groups, have students discuss what they see on the maps. Do they notice any patterns? Are there cats in places they didn't expect, or no cats in places they did expect to find them? Are there any wild cats in your state or local region?
- 3. Distribute the Florida Panther Fact Sheet and give students time to read it. Explain to students that they will be mapping changes in the Florida panther's home area that have resulted from impacts they read about. Hand out the Range Mapping Worksheet. Have students identify the areas within the Southeast where panthers once existed, and now exist, shading each area with a different colored pencil or crayon. If you have internet access, your class can view this on the state of Florida website: http://www.floridapanthernet.org/index.php/handbook/history/range\_of\_the\_puma/
- 4. Ask the students what factors they think have impacted Florida panther populations. Have students compare their maps to a political map of Florida, indicating cities and areas of high population density. What do they notice? Are there any connections they can make between areas where panthers are found and areas of high human population?
- 5. Divide your class into six groups, and provide each group with an Interest Group Card. You may wish to adapt the activity to focus on the cat species with a range closest to your school or home state.
- 6. Have students discuss their position on the scenario. Emphasize that their discussions should be based on their role, not on their own opinions. After small group discussions, one representative will present their position to the class. Then take a class vote to determine whether or not the panther will be reintroduced. Instruct students to vote based on how they think their interest group would vote, and not on their own opinions. After the vote, ask students if

- the result was what they personally wanted. Why, or why not? How did you feel about your role? Did you agree or disagree with the position your group took? Why?
- 7. Share with your class the actual management approach taken with the Florida panther; see the Florida Panther Update in this activity's Background Section. Be sure to discuss with your students that this is just a role play, and therefore nor necessarily what scientists or government officials would choose in "real life." The main point is for the class to consider all of the possible viewpoints of those involved in the issue. Actual studies in Florida have shown that residents support reintroduction of panthers.

#### **Modifications for Younger Students (Grades 3-4)**

- Explain the role-playing scenario to the class, showing pictures of the Florida panther and describing its situation and habitat needs.
- **2.** Ask students to think about what they would choose to do, but not to say anything out loud.
- 3. Read each role card aloud, one at a time, asking students to imagine that they are in that role. What do they think they would do now? Take a vote after each discussion. Create a chart on the board showing what the students would do in each role. When you have finished all the roles, tell the students that there are people in all these roles at the same time and they all want to do different things. Do they think it is hard to make this kind of decision in the real world? Why?

#### **Assessment**

- Before presenting the interest groups' positions and voting on the fate of the Florida panther, have the class develop a rubric to evaluate each group's presentation (e.g., for style, content, persuasiveness, clarity of argument). After the presentations, have students complete a peer assessment based on their rubric.
- Have students write a news article or prepare a television news clip that addresses the status of the Florida panther, the positions different groups have taken regarding this issue, and what the class decided to do and how they came to their decision.



#### Florida Panther Factsheet

With only roughly 80 adults surviving in the wild, the Florida panther is the most endangered of North America's remaining cats. They have been almost wiped out because of historic overhunting and habitat loss. Because the population is so low, the Florida panther population's health has been suffering from inbreeding (too few individuals breeding with each other), which has resulted in infertility and heart abnormalities.

Preserving enough habitat for the Florida panther is critical for its survival. About half of the panthers' habitat is located on privately-owned land. The panther once ranged throughout Florida to southern South Carolina and southern Tennessee, and from Georgia west through Alabama. Mississippi. and Louisiana as far as eastern Texas. including nearly the whole of Arkansas. Their range has shrunk dramatically, and Florida panthers currently live only in southwest Florida in Collier, Lee, and Hendry counties, all south of the Caloosahatchee River. This area is under intense pressures from agriculture, urban and industrial development, resource use, and road construction; many panthers have been killed trying to cross roads. In order to survive into the future these cats must reclaim some of their former range, through natural movement or a reintroduction program.

The U.S. Fish and Wildlife Service Recovery Plan for the Florida panther has three main goals for panther recovery:

- Preserve the sole remaining populations of panthers in south Florida and protect viable habitat for panthers;
- 2. Estab lish at least three viable, self-sustaining populations of panthers throughout their historic range; and
- 3. Establish broad. positive public support for Florida panther conservation.

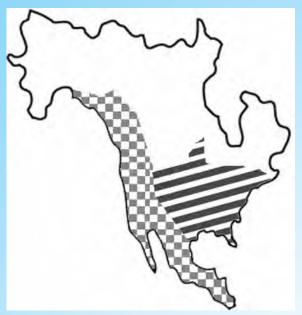
Education is an important step to increase public support for cat conservation. Because recovery and reintroduction efforts for the Florida panther are controversial, they will never be successful without dedicated support from the general public. Efforts are ongoing to increase public knowledge about the Florida panther's conservation needs and decrease people's fear of these big cats.

#### **Role Play Scenario**

There is a proposal to reintroduce Florida panther north of the Caloosahatchee River. Your teacher will give you a role, describing your perspective on this proposal. Put aside your personal views, and discuss with your group how you will argue your position to different interest groups.



#### **Cat Range Maps**



**Cougar Range** 



Border Cats Range (Ocelot, Jaguar, Jaguarundi)



Lynx Range

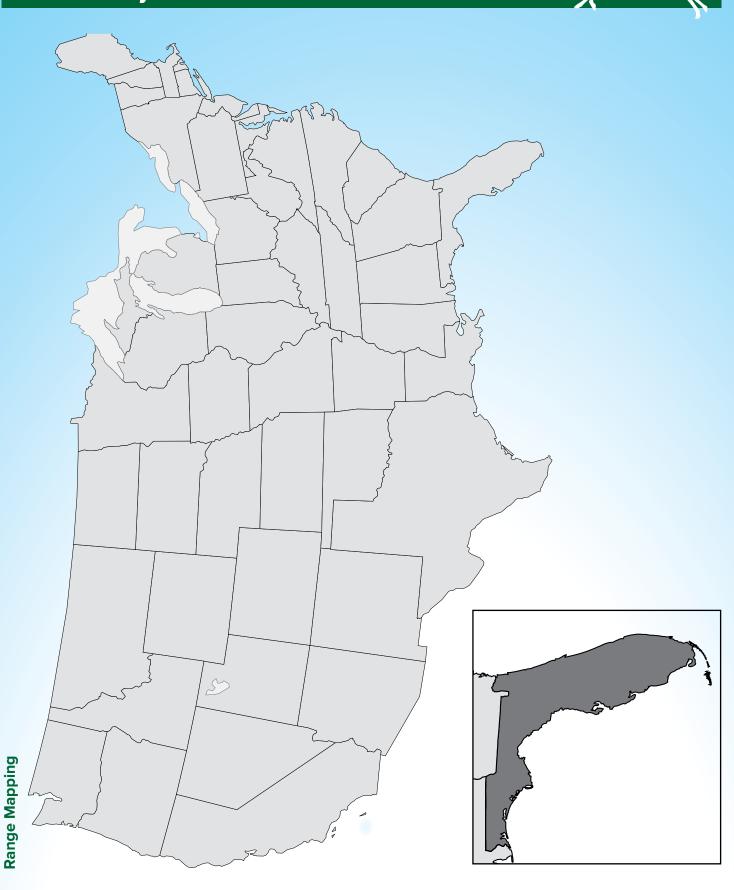




**Present Range** 



**Historic Range** 



**Role Play Cards** 



There is one forested area left in the county, and you think it would make a perfect location for a new neighborhood development. There is a great need for new living space in the area. You employ 500 contractors, including construction workers, plumbers, electricians, roofers, and painters. Their families depend on you for their income. Construction has been slowing down in other areas of the state and you think this particular area will be very popular for new families moving in. Though you will have to remove a lot of trees to make room for the houses, you plan to leave enough to make it look nice and shaded.



After working for the U.S. Fish and Wildlife Service for many years, you think that reintroducing wild cats to former habitat areas has been critical to recovery in some cases. Recent efforts to introduce Texas cougars, close relatives of the Florida panther, to the area have been biologically successful. Your agency has proposed building wildlife bridges and corridors to help the panthers move north naturally. But you know this is

very controversial. Will there be enough habitat available to avoid conflicts? There is no record of a Florida panther ever attacking a human, and surveys have found the public to be supportive of efforts, including reintroduction, to save the panther from

extinction. But will homeowners be supportive if panthers in their area become a reality?

### **AGRIBUSINESS OWNER:**

You are the owner of a large company that runs large farms and employs thousands of people in many parts of the state. You are planning to expand your fields, requiring the clearing of additional habitat that happens to be where the panther



might want to live. In addition to the jobs you provide, your farms provide food for thousands of people both in Florida and throughout the country and the world. Florida's climate is perfect for year-round growing of

many crops, including oranges, grapefruits, and other citrus fruits. Additionally, your company pays a large amount in tax income for the state of Florida. You know that your company is good for the state and its people, and that Florida would not want to limit the amount that your company can grow.

### **HOMEOWNER:**

As someone who owns private land, you have invested your life savings into your home and property it sits on. You have three grown children and five grandchildren who often come to visit.



Might reintroduction of the Florida panther pose a threat to your dogs, or even your grandchildren? Would they be dangerous? Even though you've been told that there has never been an attack, there's always a first time, right? You pay high property taxes and are quite tired of the government interfering in your own matters. You are worried that reintroducing the panther will lower the value of your home and increase danger to you and your neighbors. You have nothing personal against the panther, but is there somewhere else it could live?





## CONSERVATION EDUCATOR:

Your priorities are educating people about how human activities influence cat behavior and encouraging community involvement in government cat conser-



vation efforts. You want to make people realize that these panthers will not pose any threats to them or to their pets and children. You think that if you do your job well, you will be able to show people that panthers are beautiful and amazing animals that deserve our protection, not our fear. After all, they lived here for thousands of years before people came in large numbers and started to build lots of offices and homes and malls. You would like to be able to convince local people here that they should be proud to live in a state with such amazing biodiversity, including cats. They could even advertise that cats live here and increase tourism, attracting visitors eager to catch a glimpse of a real live panther! But you know that large cats are also feared, so you have your work cut out for you.

#### **BIG CATS ZOO EMPLOYEE:**

The Big Cats Zoo has been active in the captive breeding program for Florida panthers. After many years of trying to breed young panthers, and some initial setbacks, the zoo now has a population of several male and female panthers of different ages. With dona-

sary behind the reintroduction effort, the zoo is ready to release at least one adult male and female, if approved.

While captive breeding is now possible, it is difficult, expensive, and very labor-intensive. You really think that providing habitat and allowing panthers to live and reproduce in their own environment

is a much more natural and effective way of protecting them. After all, there is a limit to the success of captive breeding. The zoo only has limited space, and there must be a natural place for the panthers to go or their future will be in danger.