



1 JOURNEY OF THE ENDANGERED FLORIDA PANTHER



ESTIMATED TOTAL TIME
50 minutes

- ▶ Grades 5-8 Life Science
- ▶ Math and Data Literacy Connections

In this activity, students analyze *Path of the Panther* film clips and population data to learn the story of this endangered species. Students will recognize the challenges of tracking and protecting this elusive big cat, as they build understanding of the limiting factors and human threats the Florida panther faces from hunting, habitat destruction, vehicle collisions, and disease. To demonstrate their learning, students create posters with proposals for addressing threats and limiting factors as a way to protect the panther and its habitat.

KEY TERMS

- ▶ endangered species
- ▶ limiting factor
- ▶ population
- ▶ wildlife tracking

See the glossary on page 44 for definitions.

BACKGROUND

The film *Path of the Panther* provides a window into the ecosystems that support wildlife, the human impacts affecting wildlife **populations**, and the actions of people who are committed to conservation within the Florida Wildlife Corridor. The Florida panther once moved throughout the southeast United States, but it is now found only in the southern region of Florida. The Florida Wildlife Corridor, designed to facilitate movement of wildlife, allows species to roam freely across diverse ecosystems. This network of connected public and

private lands provides a natural habitat for countless **endangered species**, including the Florida panther.

Endangered species are organisms threatened by extinction, either due to habitat loss or loss of genetic diversity. Habitat loss can happen naturally or as a result of human-caused threats such as vehicles on roads, land development, industry, or agriculture.

Unlike human-caused threats, a **limiting factor** is a factor in nature that constrains a population's size. Examples of limiting

factors include scarce food sources, few mates, and competition for resources. Often, a population is affected by several limiting factors at once. Over time, limiting factors can cause population growth to slow and then stop as a population reaches the carrying capacity of the ecosystem. In addition to habitat loss, vehicle collisions, and hunting, the Florida panther population has been influenced by limiting factors including disease and a decrease in genetic diversity.



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OBJECTIVES

Students will:

- identify threats and limiting factors affecting the population;
- analyze a graph of population change over time; and
- propose strategies for protecting the Florida panther from extinction.

PREPARATION

Gather and/or print materials:

- Handout: Journey of the Endangered Florida Panther (1 per pair or small group)
- Slide: Florida Panther Population Over Time
- Film Clips: [Path of the Panther](#)
- Large poster paper
- Markers
- Sticky notes (optional)
- Reference: [Endangered Species, Limiting Factors](#)

Set up technology:

Ideally, students will view the film clips (projected) as a whole class, but viewing in pairs or small groups could give students an opportunity for more discussion.

5 MIN INTRODUCE THE ACTIVITY

1. Build interest and access prior knowledge with a short discussion. Ask: *How do you think the population of large wild animals, such as black bears or mountain lions, has changed since 1900?* Generate ideas around changes in habitat for these animals and how they and humans interact. Then ask: *What might have led to those changes?* Explain that while black bears live all over North America, big cats are much less common.
2. Show the slide Florida Panther Population Over Time and discuss the questions provided.
3. Tell students they will examine in clips from a documentary what threats and limiting factors have caused the population of one of North America's big cats, the Florida panther, to decrease so much that it's been listed as an [endangered species](#). Explain to students that [limiting factors](#) are factors that affect a population rather than an individual. They will create a proposal to address those factors to better protect the panther.

30 MIN VIEW CLIPS FROM THE FILM

4. Give pairs or small groups the Journey of the Endangered Florida Panther handout to prompt note-taking as they view the film clips—either as a whole class or in small groups. There will likely be moments when there is a need to rewind to clarify what they are learning from the clips.
5. Pause after each clip and discuss as a class the key points, using the following prompt:
 - *What factors have limited the panther population, past and present?*Have students circle or highlight notes referring to threats or limiting factors.

15 MIN DEVELOP A PROPOSAL TO PROTECT THE FLORIDA PANTHER

6. Propose to students this key question: *What do panthers need to continue increasing their population?* Have students follow the directions in the wrap-up assignment on the handout to develop their ideas.
7. Have students use large poster paper and markers to create a poster with their proposal ideas. Each group can post their proposal on the walls and present it to the class, or groups can move around the room as a “gallery walk” seeing each group's ideas. Optionally, have students add more ideas to posters using sticky notes.

STANDARDS

This activity addresses the following:

NGSS: MS-LS2-4: Construct an argument supported by empirical evidence that changes to physical or biological components of an ecosystem affect populations.

Florida NGSS: SC.7.L.17.3: Describe and investigate various limiting factors in the local ecosystem and their impact on native populations including food, shelter, water, space, disease, parasitism, predation, and nesting sites.



MORE TO EXPLORE

ENDANGERED SPECIES RESEARCH

Have students find out more about endangered species in their area (by county with [this tool](#)) and research the threats to those species. Students can investigate whether wildlife corridors or other conservation strategies have been put in place to address the needs of the endangered species.

