
Teaching Objective

By following this teacher's guide, students will use their observational skills to describe, compare and contrast the physical attributes of the Pallas Cat with domestic cats.

Teachers should start with the Classroom Pre-visit Activities, continue with the Field Trip Activities (sheet provided) and then conclude with the Post-visit Activities when they return to school.

This activity can be extended over a couple of days depending on the age group and level of the students.



No Ordinary Cat!

Comparing our Domestic Cats to the Majestic Pallas' Cat

This activity is meant to be implemented before, during and after your visit to the zoo! Use it to teach your students the differences between domestic cats and the threatened Pallas' Cat.

North Dakota Science Standards K.4.1 1.4.2 2.4.2. 3.4.1. 3.4.3. 4.4.2. 4.4.3.

Introduction

The Pallas' Cat is both very similar and different to our pet cats! Both have adaptations that they share, and some that are unique to them. The current **conservation status** of the Pallas' Cat is **near threatened**. Only 7000 remain in the wild and more than 100 are kept in zoos.

Pre-visit Activities

- Ask the students what they know about cats. Write down their answers on the board or chart paper.
- Write down these questions: *What are some cat species that you can think of? What are some characteristics of a cat? What is an **adaptation**?* Ask them if anyone has ever heard of a Pallas Cat. Ask them what they think it might look like and where it got its name from. Ask them how they could find more information about the Pallas Cat (ex: books, internet, watching a movie, visiting the zoo, etc).
- Read the background information about the Pallas Cat. You may want to print out pictures of the cat (provided at the end of this activity) to pass around the class.
- Depending on the age level and amount of time you have, you may want to define what the **conservation status** of a species is, along with what the different categories are. Refer to the *glossary* at the end if you want to create a Word Wall.

Pallas' Cat information

Pallas' cats (*Otocolobus manul*) were discovered in the 18th century by a man named Peter Pallas (hence their name). Pallas's cat is about the size of a **domestic** cat. It weighs about 5 to 10 pounds. The combination of its stocky posture and long, **dense** fur makes it appear stout and plushy. It is normally grayish brown with dark vertical bars on the torso and forelegs. The winter coat is greyer and less patterned than the summer coat. There are clear black rings on the tail and dark spots on the forehead.

Pallas' cat is native to regions of Central Asia, Russia, Pakistan, and Mongolia where the temperature can reach 60 degrees below zero!

*You can show your students a map

They hunt at night for rodents, pikas, and birds. Pikas, which are in the rabbit family, are their main source of food. Pallas' cats are **crepuscular** – active at dawn and dusk.

*Crepuscular
means "active
during dawn
and dusk"*

Females can have up to 6 kittens in a litter.

Of all the species of wild cats, Pallas' cats have the longest hair. The hair on their belly and tail is twice as long as the hair on the top of their body and sides. This helps keep them warm in the winter.



The species is negatively impacted by habitat degradation, decline in **prey**, and hunting, and has therefore been classified as near threatened.

Currently there are only 14 zoos in the US that have Pallas' cats. The cats at the Red River Zoo are very important to the Species Survival Program (SSP)!

What exactly does endangered mean?

The word "endangered" literally means "**in danger of becoming extinct**". **Threatened** means a species is vulnerable to becoming endangered in the future.

There are many reasons why an animal may become extinct:

- ✚ a habitat change, reduction or destruction
- ✚ overhunting
- ✚ disease or predation
- ✚ lack of regulation or management
- ✚ other natural or man-made factors

The International Union for the Conservation of Nature (IUCN) uses these terms to categorize the conservation status of a species:



Extinct – No reasonable doubt that the last individual has died.

Extinct in the wild— Known only to survive in captivity or in an introduced population well outside the natural range.

Critically endangered— Facing an extremely high risk of extinction in the wild.

Endangered— Facing a very high risk of extinction in the wild

Vulnerable— Facing a high risk of extinction in the wild.

Near threatened— Does not qualify for one of the other categories now, but is likely to qualify for one of them in the future.

Least concern— Currently widespread or abundant.

The Species Survival Plan (SSP) is a program developed in 1981 by the American Association of Zoos and Aquariums (AZA) to help **ensure the survival of selected species in zoo and aquariums**, most of which are threatened or endangered in the wild. The Red River Zoo participates in the SSP and breeds several species at the zoo!

Field Trip Activities



Prior to arriving, students should have copies of the worksheet provided.

- While exploring at the zoo, ask your students to find the Pallas' Cat exhibit (it is located across from Takin Ridge)
- Once you are in front of the enclosure, ask the student the following questions:

Spotting the cats:

- How many Pallas' Cats can you find? (there should be 3)
- Was the Pallas' Cat easy or hard to find in his enclosure?
- Why were some of them hard to find?
- What does the cat look like and how do you think its color helps it to survive?
- What is the cat covered with?
- Are cats birds, reptiles, mammals or amphibians?
- How is the Pallas' Cat similar to the domestic cat? Different?

Diet:

- What do cats eat? At home? In the wild? Can you see this cat's food?
- What body parts do you think cats use to find and eat their food?



Resting:

- Are the cats on the ground or in the tree?
- What are they doing?
- How do the cats get into the tree?
- Do you think they move around easier on the ground or in the tree?
- Which body parts do they use while climbing?
- Do you move around easier on the ground or in a tree? Which body parts help you move?

Extras...

Can you find another exhibit with an endangered animal?

Can you find another exhibit where the animals are in a tree?

Can you find another exhibit with an animal that is from the same area as the Pallas Cat?



Post-visit Activities

- Ask your students what they have learned about the Pallas' Cat. Review the questions and ask them to compare how the Pallas' and domestic cats are similar.
- Ask students to draw a home for the Pallas' Cat and/or domestic cat. Compare their homes and what each would need in their environment. Where will the cat sleep? Eat? Does it live alone or with others? What other animals might live nearby? What do they need to include to that their cat survives?
- There are a number of *cat crafts* you could also have your students create.
- Create a Pallas' Cat headband by cutting a strip of construction paper about 2 inches thick and long enough to wrap around a fore head (make sure you make it an inch or two longer so you can staple the ends together.) Now, fold another piece of paper in half and cut out a set of rounded Pallas' Cat ears. If you want to add stripes, spots, or other designs to your cat ears, do it now. Put the bottom edge of each ear up against the strip of paper and staple or tape them in place. Once the ears are attached, staple or tape the ends of the strip together to snugly fit around your fore head.

Glossary

Adaptation: A physical or behavioral process whereby an organism becomes better able to live in its habitat

Altitude: a distance measurement, usually in the vertical or "up" direction

Conservation status: Indicates members of a species are still alive and how likely the species is to become extinct in the near future. Many factors are taken into account when determining conservation status: the number of individuals remaining, the overall increase or decrease in the population over time, breeding success rates, known threats, etc.

Crepuscular: Active during dawn and dusk

Dense: thick

Domestic: tame, pertaining to the home

Endangered: facing a high risk of becoming extinct

Habitat degradation: when habitats are displaced or destroyed, making them unable to support the species present

Prey: an animal hunted for food



Name: _____

Date: _____

No Ordinary Cat: Comparing our Domestic Cats to the Majestic Pallas' Cat!

1. How many Pallas' Cats can you find? _____



2. Was the Pallas' Cat easy or hard to find in his enclosure?

3. Why were some of them hard to find?

4. What does the cat look like and how do you think its color helps it to survive?

5. What is the cat covered with? _____

6. Are cats birds, reptiles, mammals or amphibians? (circle one)

7. How is the Pallas' Cat similar to the domestic cat? Different?

8. What do cats eat? At home? In the wild? Can you see this cat's food?



9. What body parts do you think cats use to find and eat their food?

10. Are the cats on the ground or in the tree? _____

11. What are they doing? How do the cats get into the tree?

12. Do you think they move around easier on the ground or in the tree?

13. Which body parts do they use while climbing?

14. Do you move around easier on the ground or in a tree? Which body parts help you move?

15. Can you find another exhibit with an endangered animal?

16. Can you find another exhibit where the animals are in a tree?

17. Can you find another exhibit with an animal that is from the same area as the Pallas Cat?

