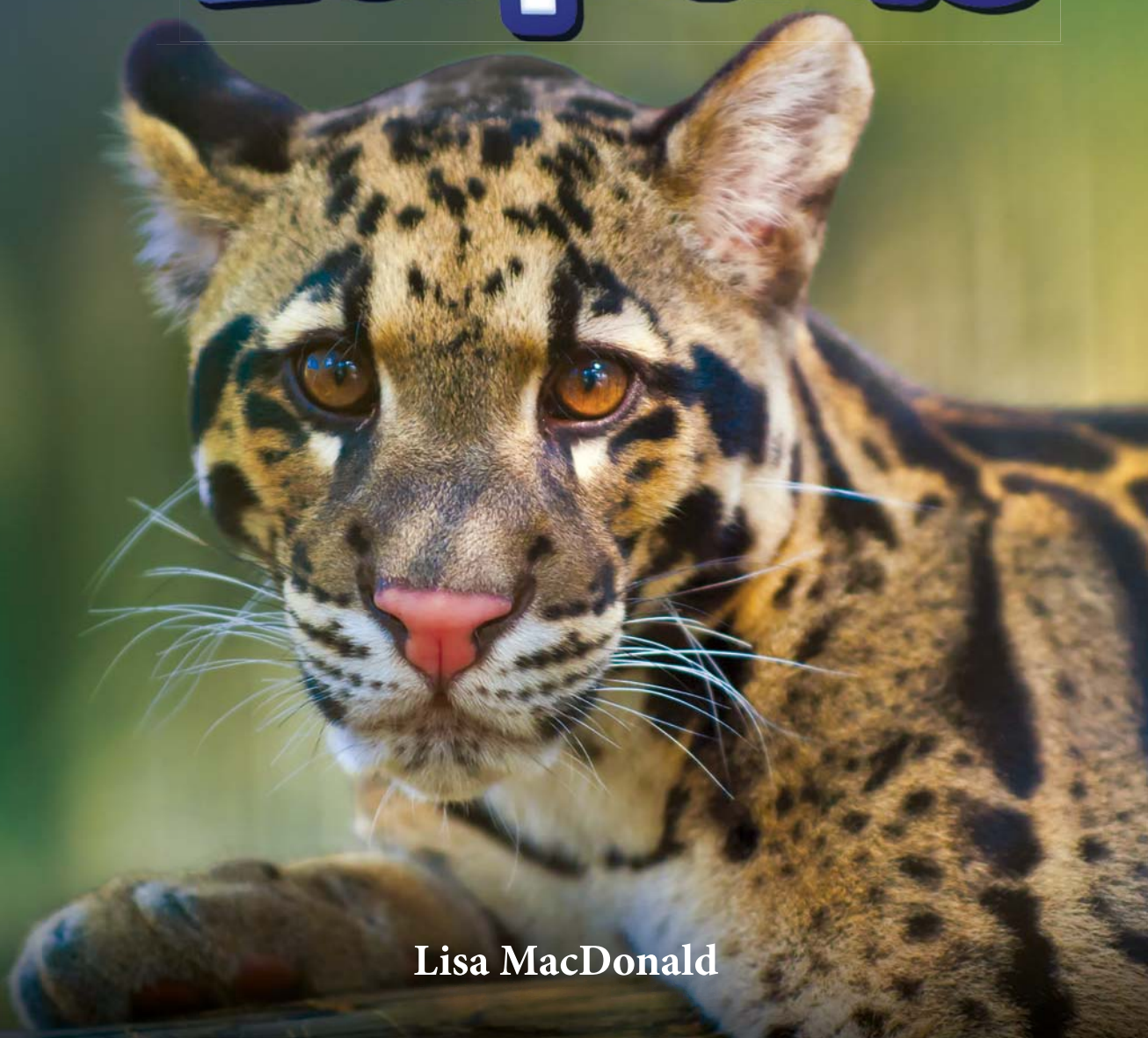




Smithsonian

Raising Clouded Leopards



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Not Your Average Cat

Look over there! Did you see the wild cat before it ran away? That cat is a clouded leopard. It is threatened, which means there are few of them left in the wild.

People want to find wild animals for different reasons. Some people want to keep them as rare pets. Some people hunt them. These actions are not safe for the animals or for people. Others hurt wild animals by accident. They ruin habitats, which can lead to the loss of food and places to live.

Other people want to find wild animals to help them. Scientists want to study clouded leopards. They hope to learn what clouded leopards need to survive. The more that is known, the more we can do to help them. But this is not easy since leopards are hard to find in the wild.



A Denver Zoo worker feeds a clouded leopard.



Construction workers
tear down part of the
Borneo rain forest, where
clouded leopards live.

clouded leopard

Meet Clouded Leopards

What do scientists know about clouded leopards? They are small for a “big” cat. They weigh between 11 and 23 kilograms (25 and 50 pounds). Their appearance gives clues about how they live. They have long tails and short legs compared to other wild cats. These **traits** give them good balance so they can climb trees.

Clouded leopards also have big paws with sharp claws. Their pads are flexible, and their rear ankles turn backward. These traits help them grip branches so they can climb down a tree headfirst!

Special Sounds

Lions roar and house cats purr. Clouded leopards do neither. Instead, they **growl**, hiss, and **chuff**. Why do different cat **species** make different sounds? Differences in the bones and shape of a cat’s throat change the sounds it can make.



pads on a clouded leopard paw

Open Wide

Clouded leopards have hinged jaws that allow them to open their mouths to 100-degree angles. That's four times wider than humans! This allows clouded leopards to eat larger animals.

A close-up photograph of a clouded leopard perched on a thick, textured tree branch. The leopard is captured in the middle of a wide yawn, with its mouth stretched open, revealing its pink tongue and sharp, yellowish teeth. Its eyes are squeezed shut, and its whiskers are extended. The leopard's fur is a mix of tan and brown, adorned with large, dark, cloud-like spots and stripes. The background is a soft-focus green, suggesting a dense forest. A large, semi-transparent red watermark with the text 'KOLLEGE REVIEW ONLY' is diagonally across the image.

clouded leopard
yawning

Private Cats

Not much is known about how clouded leopards live in the wild. But scientists are finding new ways to study them. Most wild cats like to be alone most of the time. Scientists think clouded leopards are **solitary**, too. Even leopards that live in the same region do not spend much time together.

A Different Species

Animals' names say a lot about them. This is true for clouded leopards, too. The “clouded” part of their name comes from the pattern on their coats. The large spots look like clouds.

The “leopard” part is trickier. Some people might think that the clouded leopard is a type of leopard. Scientists now know that it is a completely different species. To understand what this means, think of a pug and a poodle. They are both dogs, but they are not the same type of dog. Now think of a pug and a wolf. They are different species.



A black and silver trail camera is mounted on a tree trunk using a grey strap. The camera has a lens and a sensor array. The background is a dense green forest. A large red watermark 'FOR RESEARCH ONLY' is diagonally across the image.

wildlife camera

TECHNOLOGY

Camera Trapping

To find out how clouded leopards act when they are alone, scientists film them. Scientists build camera traps. They add sensors to cameras. When an animal moves past a sensor, *click!* It is “captured” on the camera. These images show how animals act in the wild.



STEAM CHALLENGE

Define the Problem

Your local zoo is starting a breeding program to help save the clouded leopard. You have been asked to design the new exhibit. How will you use what you have learned to make a zoo habitat for these animals?



Constraints: The exhibit must be able to house 4 clouded leopards at one time.



Criteria: A successful design will look like their natural habitat, make the animals feel safe, and allow scientists and visitors to observe them.





Research and Brainstorm

Look for information in the book about the life and behavior of clouded leopards. Do clouded leopards live in groups or alone? Do they need separate spaces? What do the animals like to do? How will the scientists watch the animals in your model?



Design and Build

Sketch your design of the exhibit. What purpose will each part serve? What materials will work best? Build the model.



Test and Improve

Your classmates will act as the zoo's scientists. Show and explain your model exhibit to the group. Ask for ways to improve the design. How will you use this information to make changes? Modify your design and present it again.



Reflect and Share

Do you think scientists share their work? What are some benefits of sharing ideas in science and engineering? How did you learn from others during this challenge?

