

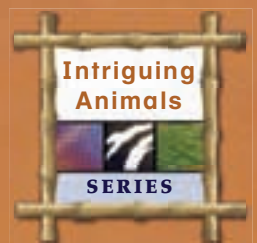
# The Pangolin



**SAMPLE**

LLI RED SYSTEM BOOK

by Julie Winterbottom



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**The Pangolin**

Author: Julie Winterbottom

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# Meet a Ground Pangolin

**Y**ou might think you are dreaming when you see a ground pangolin (PANG-uh-lin) for the first time. This animal looks very strange. It looks like a big walking pine cone.

The pangolin has a tiny head, a long nose, and an even longer tail. Its round body is covered with hard, brown scales. The scales are like small, hard plates all over its body.

When you look inside the pangolin's mouth, you will see things that are even stranger. It has no teeth. And its skinny tongue is as long as its body.







The pangolin looks like a walking pine cone.

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Why is the pangolin's body so strange? Its body parts help the animal to survive. The pangolin uses its strange body parts to get food. It also uses its body to protect itself, or keep itself safe.

## Ground Pangolin Habitat





# Finding Dinner

**T**he ground pangolin is a nocturnal animal. Nocturnal animals sleep during the day and are awake at night. The pangolin spends the day at home. It lives in a hole in the ground. When it gets dark, the pangolin goes out to look for a meal.

This ground pangolin is heading out at night to find some dinner.



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The pangolin has two favorite foods: ants and termites. And it has the perfect tools for finding and eating these insects.



termites

## Following Its Nose

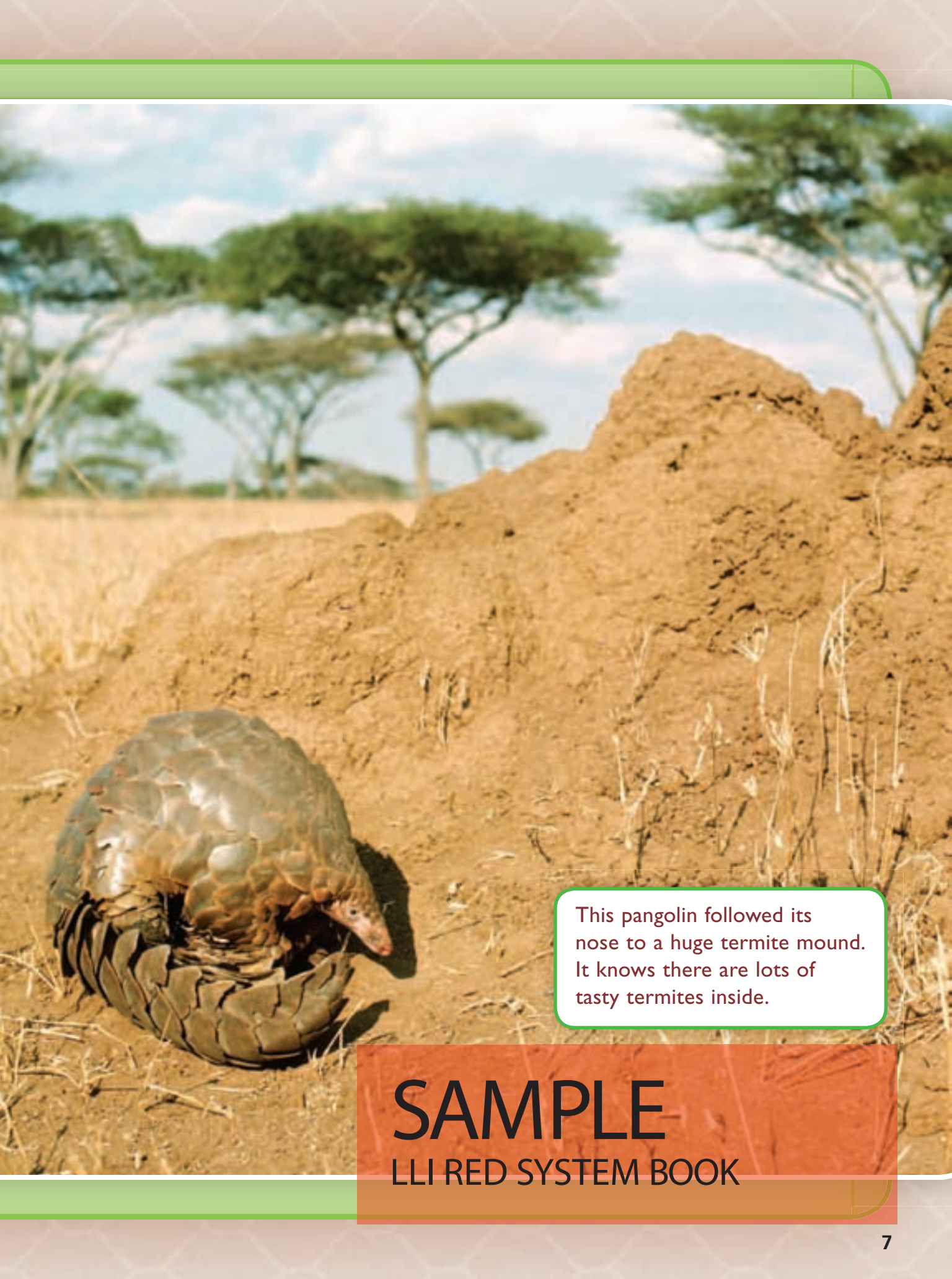
The pangolin can't see very well. But it has a super sense of smell. It can smell ants and termites even when the insects are underground.

To find dinner, the pangolin walks on its back feet with its nose close to the ground. Soon it catches the scent of its favorite insects. The pangolin follows its nose straight to the nest and starts digging fast.

### **Eight Kinds of Pangolins**

There are eight kinds of pangolins in the world. This book is about the ground pangolin. Ground pangolins live in Africa.





This pangolin followed its nose to a huge termite mound. It knows there are lots of tasty termites inside.

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A ground pangolin's claws



## Sharp Claws

Now the pangolin must dig up and break open the bugs' nest. Its strong legs and long, curved claws are great for this job. It breaks into the nest quickly.

The bugs live in tiny tunnels in the nest. How can the pangolin reach them? It helps to have a very long, sticky tongue.

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# A Very Long Tongue

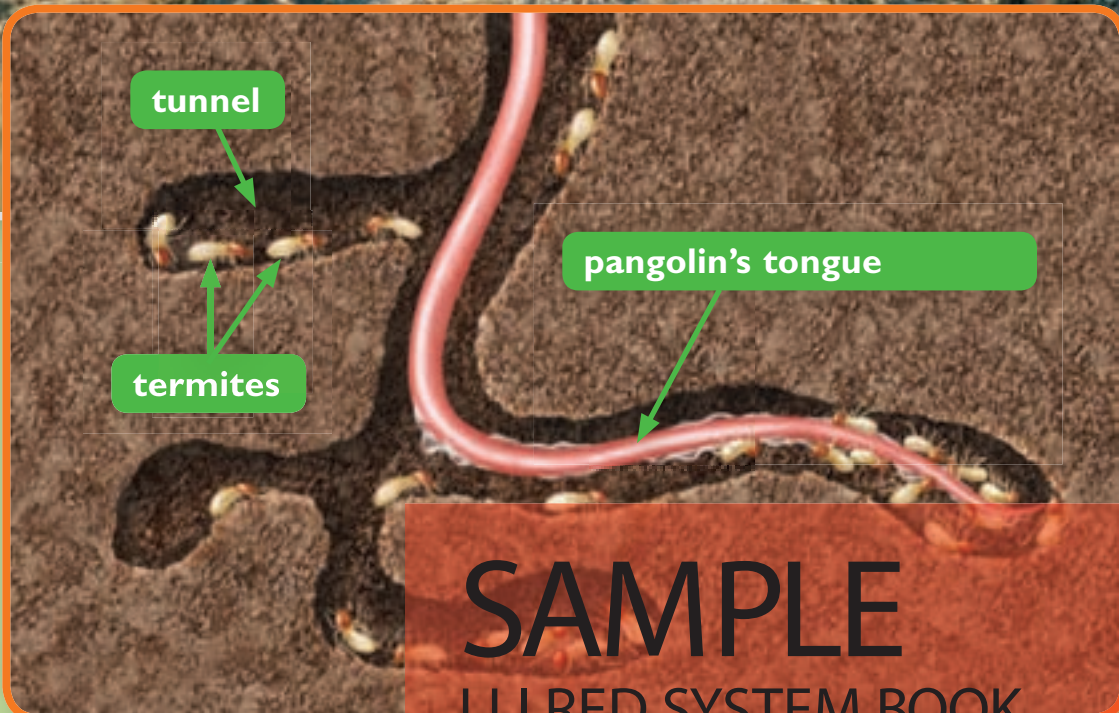
Stick out your tongue. It's pretty short. What if your tongue were as long as your whole body? The pangolin's tongue is. Its tongue is more than 1 foot (0.3 meters) long. That's as long as the animal's whole body.

The pangolin's tongue isn't just long. It is skinny and round, like a worm. It is also sticky. That makes it just right for reaching inside a tiny tunnel. Then it pulls out bugs for dinner. This tongue works so well that some pangolins can eat 200,000 ants in one night.

## A Tongue That Folds Up

The pangolin folds up its tongue when it's not using it. The pangolin keeps the tongue in a special pouch in its throat. This is like having a pocket for your tongue.

This ground pangolin is sticking its long tongue into the bug tunnels to snatch up a meal.



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## A Spiny Stomach

The pangolin has a long tongue, but it has no teeth at all. Luckily, it has a special stomach that can “chew” food.

The pangolin has a very long tongue, but no teeth.





The pangolin's stomach has sharp spines inside of it. The spines act like teeth and help grind up the food. But that's not all. When the pangolin eats bugs, it eats sand and tiny rocks, too. The sand and rocks also help to grind up food.



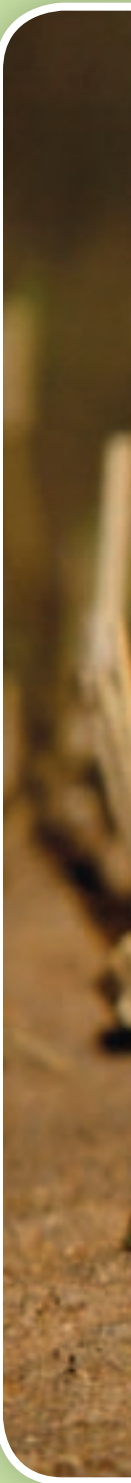
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# Protecting Itself

## Protection from Its Food

The pangolin is good at getting food. But sometimes the food tries to get the pangolin! While the pangolin is eating, some ants run across its face. They try to bite the pangolin. Luckily, the pangolin can protect itself.

The skin on the pangolin's face is very thick. That makes it hard to bite. Thick eyelids also cover its eyes. The eyelids can shut tightly to protect the eyes. The pangolin can even shut its ears and nose tightly. This is like rolling up car windows to keep out bugs.



The pangolin's thick eyelids protect its eyes from bugs.



thick eyelids

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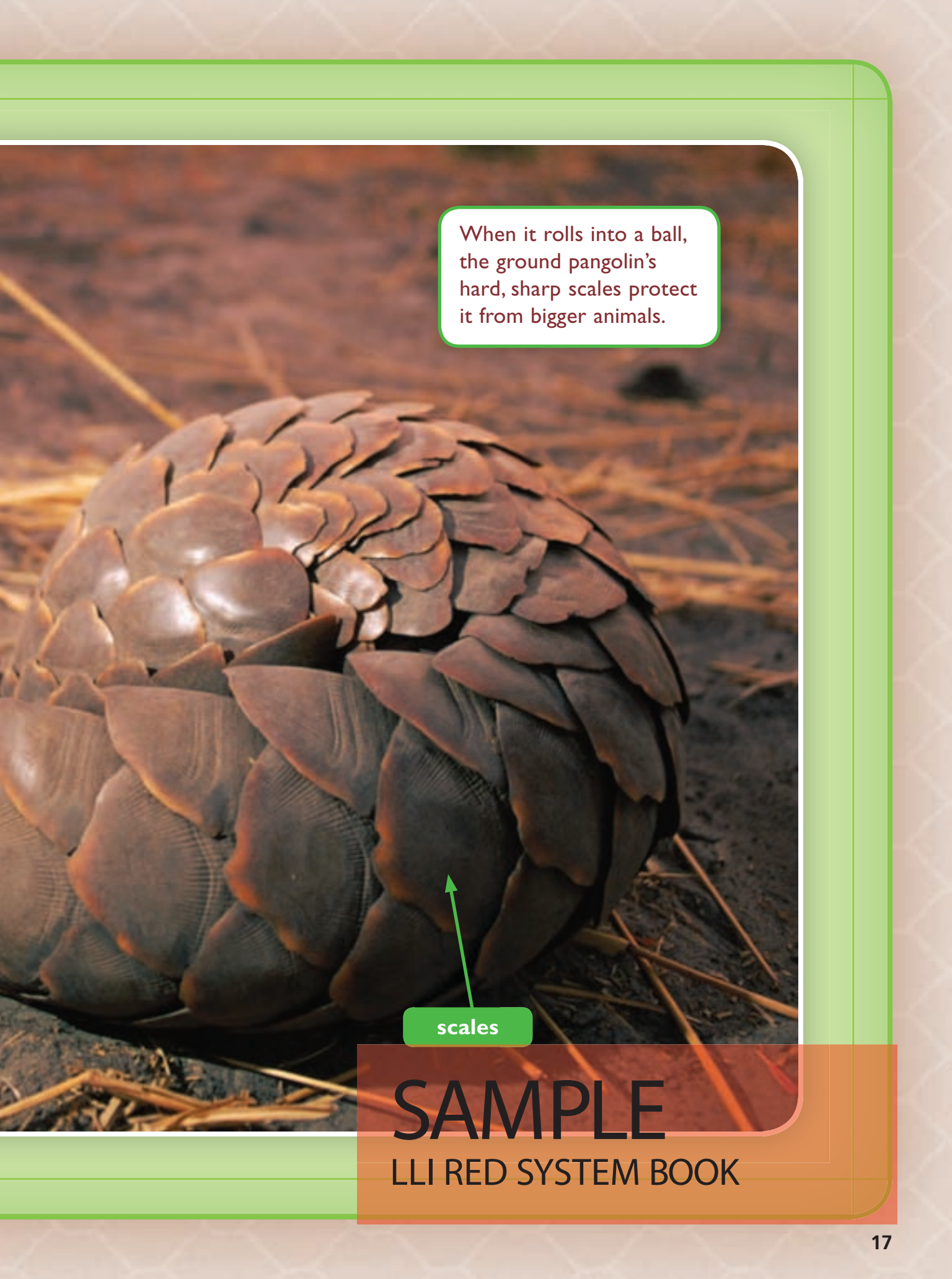


## Protection from Bigger Animals

The pangolin's body helps protect it from bigger animals, too. Thick, sharp scales cover its whole body, except for its belly and face.

When danger is near, the pangolin rolls up into a tight ball. Its face and belly are completely covered. Only its sharp scales are showing.



A close-up photograph of a ground pangolin curled into a ball. The pangolin's body is covered in overlapping, dark brown, scaly plates. The background is a blurred, dry, brownish ground with some twigs and grass. A white text box with a green border is positioned in the upper right quadrant of the image. A green arrow points from a label at the bottom to one of the scales.

When it rolls into a ball,  
the ground pangolin's  
hard, sharp scales protect  
it from bigger animals.

scales

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This lion tried very hard to eat the pangolin that's in its mouth. But the lion couldn't chew through the pangolin's hard, sharp scales.







Then the pangolin lifts its scales so they stand up a little. This raises up the sharp edges of the scales. If an animal comes too close, the pangolin snaps the scales down like scissors. A paw caught between scales gets a sharp cut.

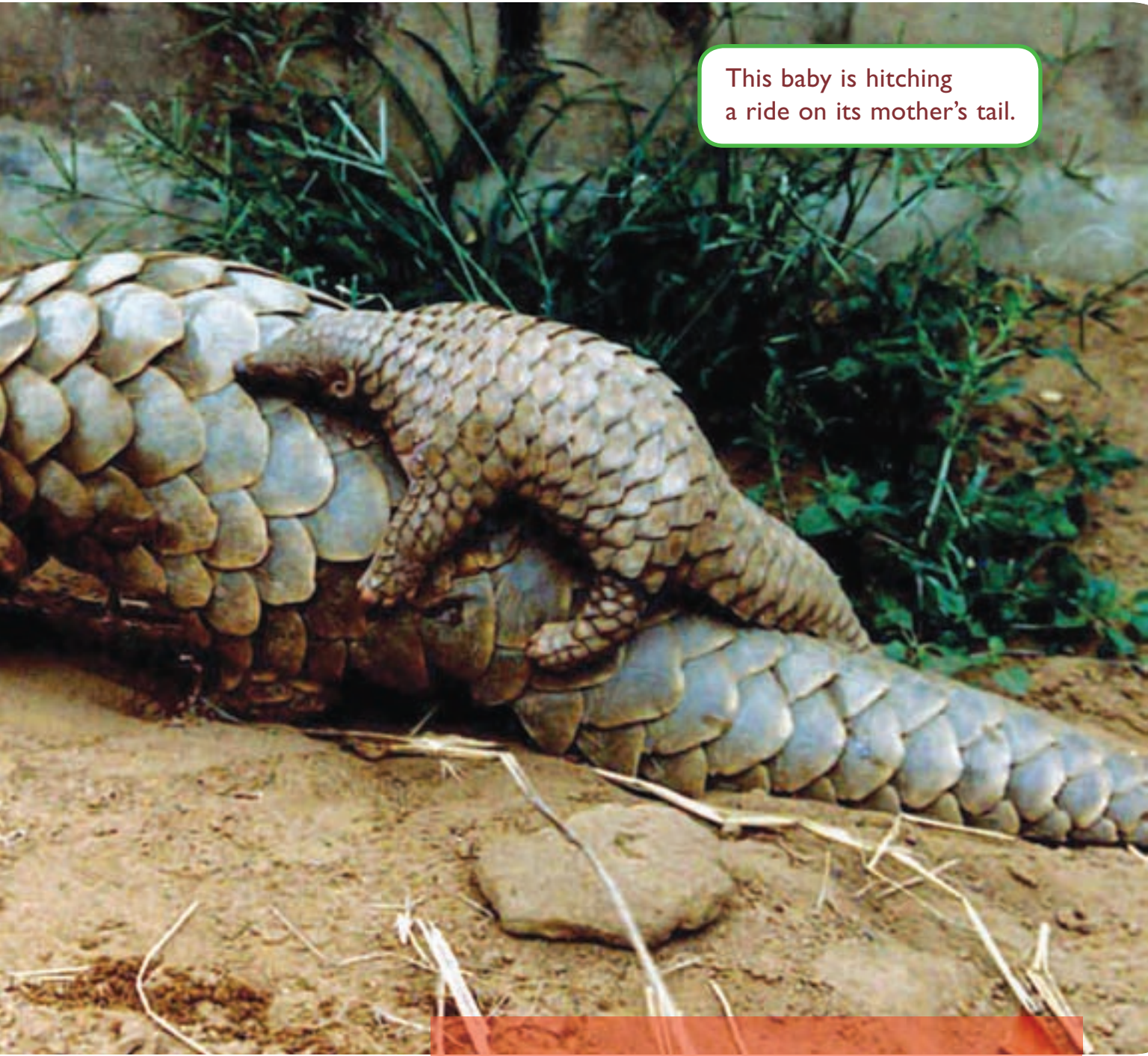
The sharp scales on the pangolin's tail give it another way to stay safe. If a big animal gets too close, the pangolin swings its tail around. It can cut the animal. The swinging tail sends a message: "Get lost!"

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The pangolin's wide, thick tail also helps it protect its baby. The baby climbs on its mother's tail. It uses its long claws to hold on tight. The mother keeps her scales closed so the sharp edges don't hurt the baby. This way, the mother can keep her baby close by and safe.







This baby is hitching a ride on its mother's tail.

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# Save the Pangolins!

**G**round pangolins are good at protecting themselves from other animals. But the pangolins need protection from people, too. Some people hunt the ground pangolin for food. They also use its scales to make medicine.

Luckily, now there are parks in Africa where ground pangolins are protected. But in Asia, other kinds of pangolins are in trouble. People there hunt them, even though it is against the law.

Groups of people are working to protect all kinds of pangolins. They want to make sure this strange-looking animal sticks around. After all, what other animal can do so many amazing things with its body?

## The Pangolin's Strange Body

Body Part	What It's Used For	How It's Used
<b>Nose</b>	Finding food; protection from bugs	Strong sense of smell helps pangolin find bugs to eat; the nose can also close tightly to keep bugs out of it.
<b>Claws</b>	Getting to food	Claws rip open ant and termite nests.
<b>Tongue</b>	Getting food to its mouth	Long, skinny, sticky tongue slips into bugs' tunnels and pulls them out.
<b>Stomach</b>	Chewing food	Sharp spines in the stomach grind up food.
<b>Eyelids</b>	Protection from bugs	Eyelids shut tightly to protect the eyes from bug bites.
<b>Ears</b>	Protection from bugs	Ears shut tightly to keep bugs out of them.
<b>Scales</b>	Protection from bigger animals	Sharp scales can cut enemies.
<b>Tail</b>	Protection from bigger animals	Sharp scales on the tail can cut enemies; a baby can also ride on its mother's tail to stay safe.
<b>Whole body</b>	Protection from bigger animals	Body can roll into a tight ball, leaving only the sharp scales showing.

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# Learn More

Watch videos of ground pangolins in action at these websites.

- **ARKive**

<http://www.arkive.org/ground-pangolin/smutsia-temminckii/video-00.html#src=portletV3web>

or search for *ground pangolin* at [www.arkive.org](http://www.arkive.org).

- **National Geographic**

<http://video.nationalgeographic.com/video/player/animals/mammals-animals/other-mammals/pangolin.html>

or search for *pangolin* at [video.nationalgeographic.com](http://video.nationalgeographic.com).



## **What Kind of Animal Is It?**

Pangolins are shy and hard to spot in the wild, so there is still much to be learned about them. Just one of the mysteries that has puzzled scientists is the animal's origins. It has scales like many reptiles, but it is not a reptile—it's a mammal. A recent study seems to show that the scaly animal is a strange offshoot of the group that includes cats, dogs, and bears!

### **Note from the writer:**

The ground pangolin is a nocturnal animal and is usually only out and about at night. However, in the winter, it is sometimes seen in the late afternoon. To give readers the best view of the pangolin, we have included some rare photos shot during daylight hours.

## A Very Strange Body

Imagine having a tongue as long as your body that can zip out to grab your food. Then think about walking around with long claws on your feet and wearing a suit of armor all the time. Does that sound strange? You bet! That's exactly what the ground pangolin looks like. But this animal looks strange for good reasons.

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