

Snap! Crunch. Chomp, chomp, chomp. Deep in a forest in China, a giant panda is having a meal. She sits on the ground with her back legs stretched out in front of her. Bamboo stalks pile up in her lap.

She lifts a bamboo stem and sniffs it. She looks it over before nibbling its green leaves. She bites the stem. The bamboo snaps with a loud crunch.

The panda peels away the bamboo's tough outer layer with her sharp teeth. She softly smacks her lips as she chews the stalk's soft inner layer.

As the panda nibbles the bamboo, she doesn't notice the other animals around her. Golden pheasants scratch at leaves and twigs on the ground. A musk deer walks by. Insects buzz by. Golden snub-nosed monkeys chatter to each other in the treetops.

A misty rain blankets the forest now. The forest sits high in a mountain range. It's often cool and wet here. The rain doesn't bother the panda. She has thick, waterproof fur to keep her warm in her cold, wet **habitat**. As the rain pours down, she keeps chewing.

Eating a Lot to Get a Little

Pandas eat a lot. They need to. A panda is a bear. Most bears are **omnivores**. That means they eat both meat and plants. A panda, however, mainly eats bamboo. Bamboo doesn't have many nutrients in it, though. That means pandas have to eat a lot of bamboo to get enough energy to survive.

Today is no different. This panda will spend more than 12 hours eating bamboo. By the end of the day, she will have eaten as much as 36 kilograms (80 pounds) of bamboo.

It's a tough diet, yet pandas have **adaptations** that allow them to live this way. For example, this panda grasps and holds each bamboo stem in her paws as she eats it. She can do this because she has a long bone in her wrist. It works just like a thumb. She uses her sharp, front teeth to bite through the tough stems. She uses her large, flat back teeth to crush and grind the bamboo.

A New Arrival

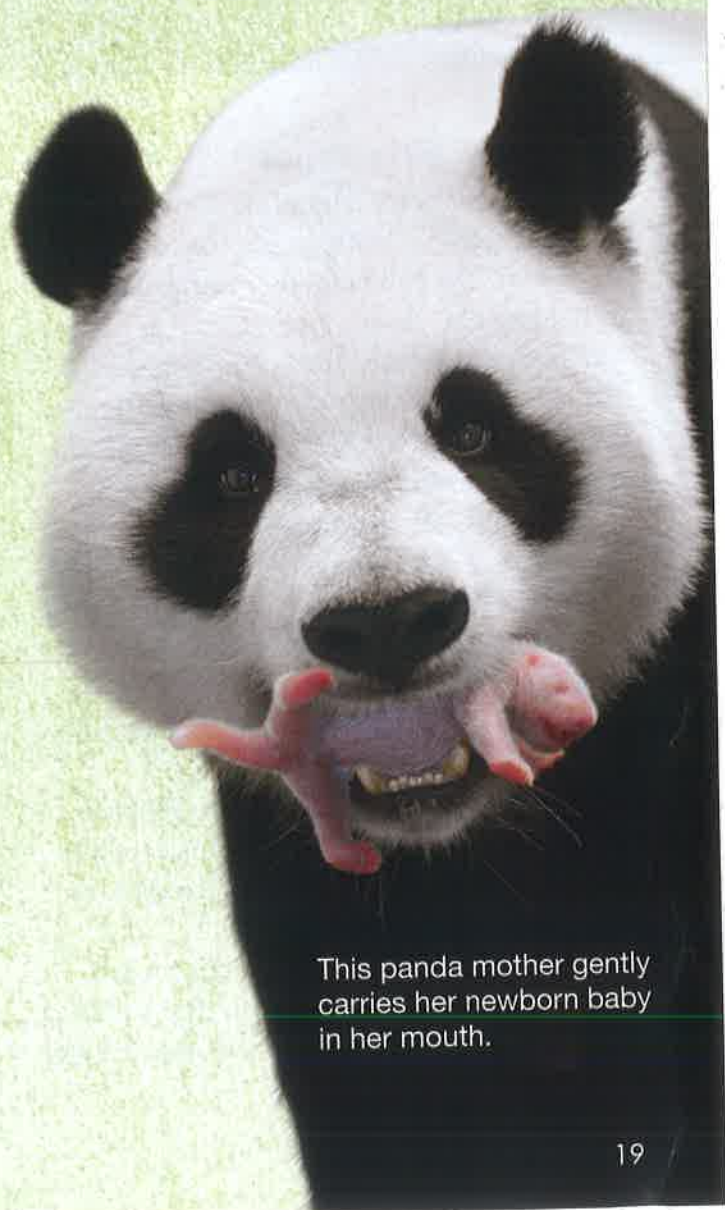
After a full day of chewing and chomping, the sun sets. The forest grows dark and quiet. The panda finishes one last bite. She is done eating for the day. It's time to rest.

Pandas often sleep right where they eat. They don't usually look for shelter at night. Tonight is different. Something special is about to happen. This panda is about to give birth to a cub. She must find a safe, dry place.

The panda shuffles over to a hollow tree and squeezes inside. The tree is dry, warm, and dark. It's a good den.

In the morning, a small sound comes from the hollow tree. It is the cry of a panda cub.

The cub is pink and furless. It can't open its eyes yet. It's about the size and weight of a stick of butter. His mother is about 900 times larger.



This panda mother gently carries her newborn baby in her mouth.



A panda mother and her cub explore the forest.

Getting Stronger

A baby panda needs a lot of care. It's fragile, tiny, and helpless. Without fur, the cub needs to stay warm. The panda mother warms her cub by holding him close.

For weeks, mother and cub stay in the den. The cub grows fur. By now, the cub is 10 times the size he was at birth. His eyes have opened. Soon it's time to leave the den and explore.

The cub is still too young to crawl very far on his own. His mother uses her teeth to hold him by the back of the neck. It doesn't hurt the cub. For now, this is how they travel. When the mother panda stops to eat, she holds her cub in one paw. Then she shovels bamboo into her mouth with her other paw.

The cub watches his mother eat. He plays with his mother's food. The cub bats bamboo leaves with his paws and pretends to chew on the stems.

This feels like a game to the cub, but he's learning from his mother how to find bamboo and how to eat it. In a few months, the cub will start eating bamboo, too.

Stepping Out

Months go by. The panda cub is almost a year old now. He is almost the same size as his mother and eats about the same amount of bamboo as she does.

The cub wanders away from his mother during the day. He's off exploring the forest. Sometimes he stays alone in the forest at night, too. The cub is learning how to live on his own just like adult giant pandas. They spend most of their lives alone.

Like other giant pandas, the cub walks on all four feet. He tucks his head down below his shoulders. His face is low to the ground. He walks slowly on his short legs, ducking low branches as he goes.

The cub's mother has taught him well. Before long, the cub finds a clearing in the thick forest. As he pushes through, he sees what he's been looking for—a new patch of bamboo.

A mule deer is grazing on shrubs nearby. The panda and the deer ignore each other. The panda sits down and pulls a stalk of bamboo from the ground and begins chewing.

Unexpected Guests

As the cub chews his bamboo, two new figures come into the clearing. They look like pandas—really tall pandas. They're scientists wearing furry, black-and-white panda suits.

These disguises prevent real pandas from getting used to humans. The researchers found this cub by accident. They were in the forest to check on another cub.

The cub they are looking for is older than this one. It had been born in a research center, but released into the wild. The researchers want to make sure that it is getting used to living on its own.

The cub eating the bamboo looks up at the tall pandas. If these researchers look strange to him, he doesn't show it. They back away quietly. They don't wish to bother him. Once they leave, the cub shovels more bamboo into his mouth.

A researcher dresses up like a giant panda. This disguise prevents the baby panda from getting used to humans.



As this baby panda grows, it will spend more time exploring on its own.



A Shrinking Refuge

Life for the giant panda may seem simple. Yet pandas face many challenges. Sometimes there isn't enough bamboo to eat, or their homes are destroyed. In some cases, pandas have been hunted by people.

Nearly all wild pandas live in the mountains of central China. Bamboo is normally plentiful here. Yet after bamboo plants produce seeds, the plants die off. It takes a long time before the seeds grow into new plants large enough for the pandas to eat.

Until new plants grow, pandas must move to another area to find food. However, moving to find food is becoming more and more difficult.

Pandas aren't alone in their **ecosystem**. Other animals live there, too, and people are not far away.

More than one billion people live in China. As they build more cities and farms, they use more natural resources. Giant pandas have less space to live and less food to eat. The giant panda is in danger of becoming **extinct**.

Dwindling Numbers

Today, only about 1,600 giant pandas live in the wild. More than 300 pandas live in zoos and research centers around the world.

Scientists are helping giant pandas. The Chinese government created panda reserves. These are places in the giant panda's mountain habitat where people aren't allowed to hunt, cut down trees, or build new houses.

Few people are allowed to live in the reserves. Pandas and other animals live there now. The pandas have room to roam and plenty of bamboo to eat.

The panda reserves also help other wildlife, like the golden pheasant, the red panda, and many other species. About 4,000 different kinds of plants and animals live in one of these areas. Some of them live nowhere else on Earth.

All the plants and animals in this ecosystem are connected. If the panda is endangered, other plants and animals are at risk, too. If it is protected, so are they.

Unlocking the Secrets

There is still a lot to learn about giant pandas. Yet studying them in the wild is a challenge.

Scientists have built research centers in some of the reserves. This gives them a chance to observe pandas more closely. Here, they care for pandas that are sick or injured. Female pandas sometimes have their cubs here, too.

Sometimes a mother panda has twins. In the wild, she will only take care of one cub. In the research center, scientists take the extra cub and make sure it grows up strong and healthy. Some of these cubs get released into the wild to live with other wild giant pandas.

All of these pandas help researchers learn as much as they can about pandas and how they live. In many ways, the giant panda is a mystery to scientists. There is still much to learn about them. The future of giant pandas is unclear. For the panda population to thrive, it must have bamboo to eat and space to live freely.

People must find ways to share the forest with the giant panda and the other plants and animals that live there. Millions of people and thousands of animal species share the panda's habitat. Protecting pandas could make life better for all.

Wordwise

adaptation: a behavior or body part that helps an animal survive

ecosystem: all the living things and nonliving things in an area, and their interactions

extinct: no longer existing in living form

habitat: an environment where an animal lives

omnivore: an animal that eats both plants and animals





This giant panda may spend more than 12 hours a day eating.

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