

Language Frames

- _____ means _____.
- For example, _____.

Define and Explain

Listen to Lily and Nico's dialogue. Then use **Language Frames** to define and explain. Talk about places where plants live.

Dialogue

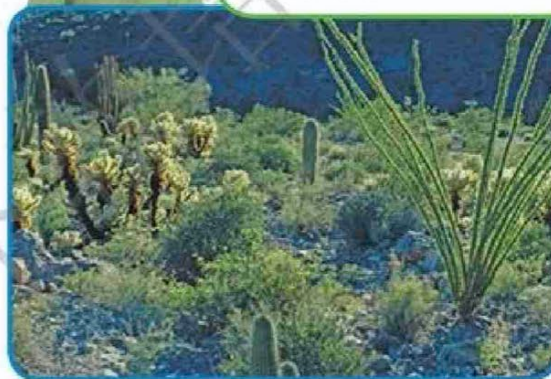
1.

What does desert mean?



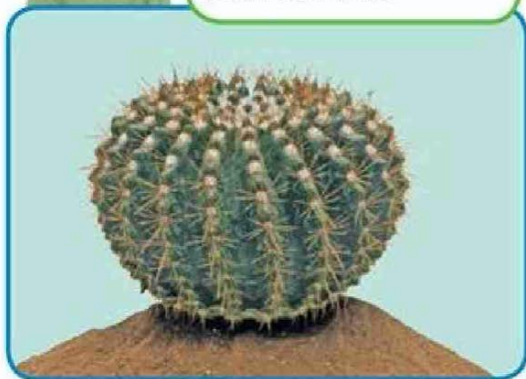
2.

Desert means a place where there is very little rain. Plants in the desert are unusual.



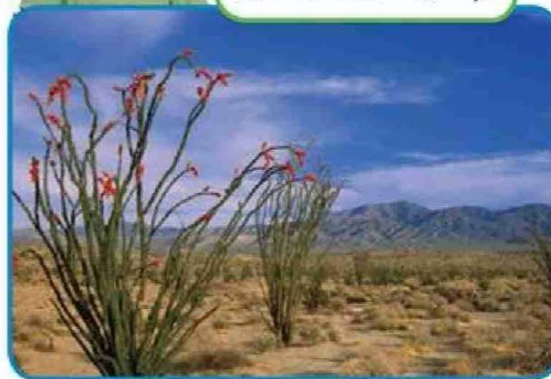
3.

They can store water. For example, this cactus fills its stem with water when rain falls.



4.

They can change to survive. For example, this plant drops its leaves when it is dry.



Science Vocabulary

Key Words

Look at the pictures. Use **Key Words** and other words to talk about ecosystems, or different places where plants live.

Key Words

city

desert

rainforest

vine

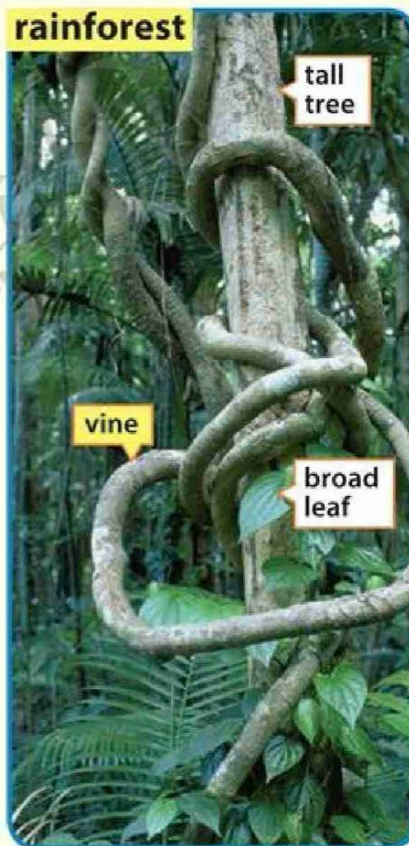
weed

city



In cities, plants grow through cracks and in open areas around buildings.

rainforest

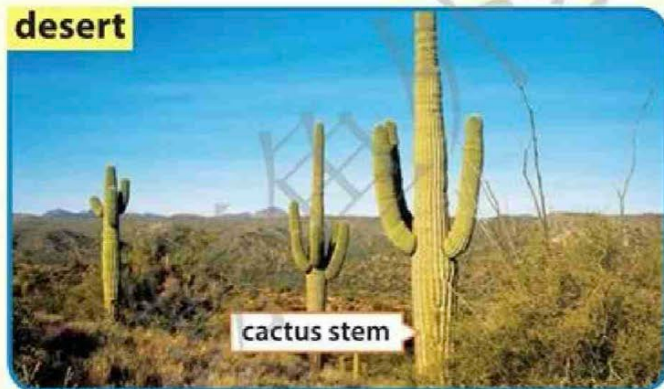


tall
tree

vine

broad
leaf

desert



cactus stem

Many plants in deserts have thick stems that can store water.

In rainforests, broad leaves, tall trees, and climbing vines collect sunlight.

Talk Together

What is amazing about where plants can grow? Talk with a partner. Try to use **Language Frames** from page 184 and **Key Words** to define words and explain your ideas.

Main Idea and Details

When you explain something, start with the most important idea. This is called the **main idea**. Then give **details** to add more information.

Look at the pictures of interesting desert plants. Read the text.



This cactus can store water.



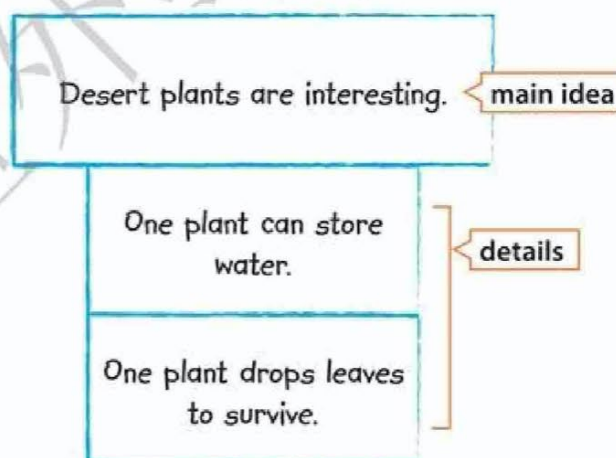
This plant drops leaves to survive.

Map and Talk

You can use a main idea and details diagram to organize information. Here's how you make one.

The main idea goes in the top box. Each detail is listed under the top box.

Main Idea and Details Diagram



Talk Together

Look back at page 185. Make a main idea and details diagram with this main idea: **Rainforest plants are unusual.** Tell your partner about your diagram.

Read a Science Article

Genre

A science article is **nonfiction**. It gives facts about a topic in nature.

Text Features

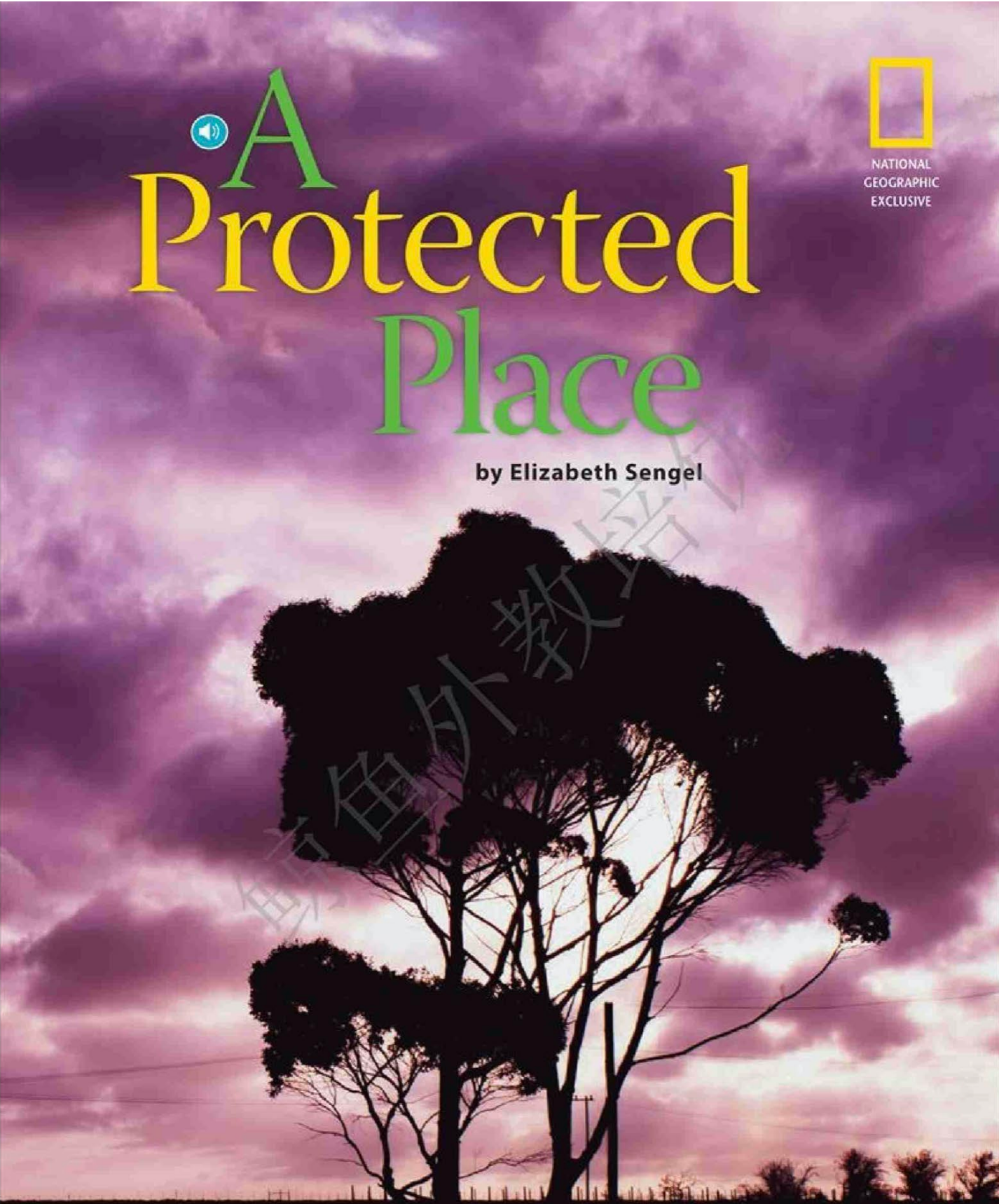
Look for **photographs with captions**. They help you understand the text better.

photograph



caption

▲ An okapi eats leaves.



A Protected Place

by Elizabeth Sengel



NATIONAL
GEOGRAPHIC
EXCLUSIVE

► Set a Purpose

Find out about a **rainforest** in Africa.

A Special Place

The Okapi Reserve is an amazing place, full of amazing plants. It is in the northeastern corner of Congo and is part of a tropical **rainforest** called the Ituri Forest. The reserve covers 5,200 square miles of land.



▲ The tops of trees create a cover over the Ituri Forest.

If you flew over the reserve in a plane, all you would see is a thick, green cover. But plant life fills the forest. From top to bottom, it is a tangle of roots, branches, and leaves. The forest **is so dense** that very little sunlight **seeps in**.



is so dense has so many plants
seeps in enters

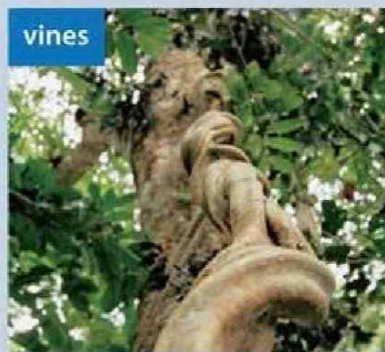
► Before You Continue

1. **Main Idea and Details** Give two details about the Okapi Reserve that support the idea that it is an amazing **environment**.
2. **Make Inferences** What would the environment of the Okapi Reserve be like?

A Variety of Plants

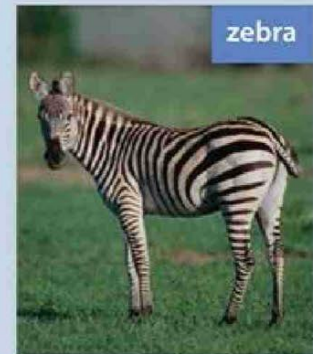
One amazing thing about the Okapi Reserve is its **diversity** of plants. There are hundreds of **native species of plants** in the reserve. **Vines** **dangle** from trees. The leaves of giant ferns curve like dinosaur tails. Tall trees reach toward the sky and make a roof with their thick leaves.

▼ A strangler fig grows around another tree in the forest.



native species of plants
different kinds of plants
that grow naturally
dangle hang

▼ An okapi runs through the woods.



The Purpose of the Reserve

The Okapi Reserve was created in 1992. The purpose of the reserve is to **protect** the rich **diversity** of plants and animals.

The reserve's name comes from one of those animals—the okapi. This strange-looking animal has the stripes of a zebra and the neck of a horse. But guess what? It's **related to** the giraffe!



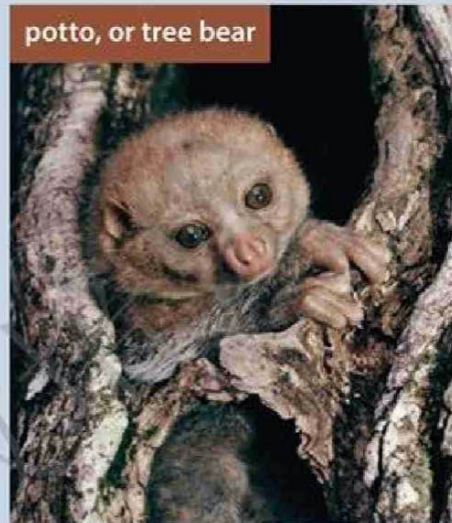
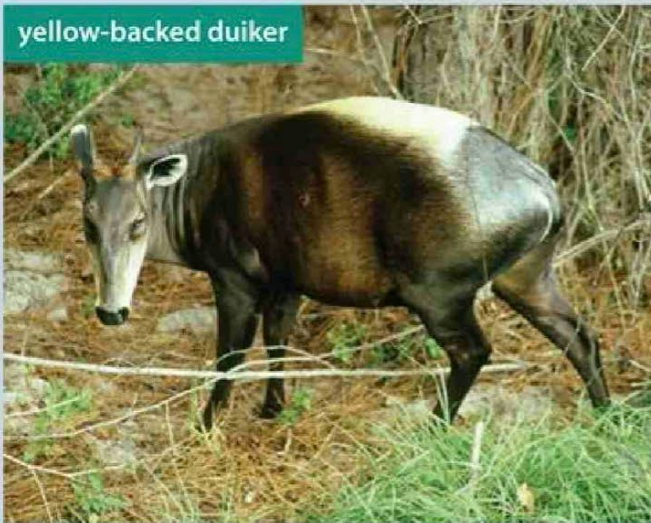
related to in the same animal family as

► Before You Continue

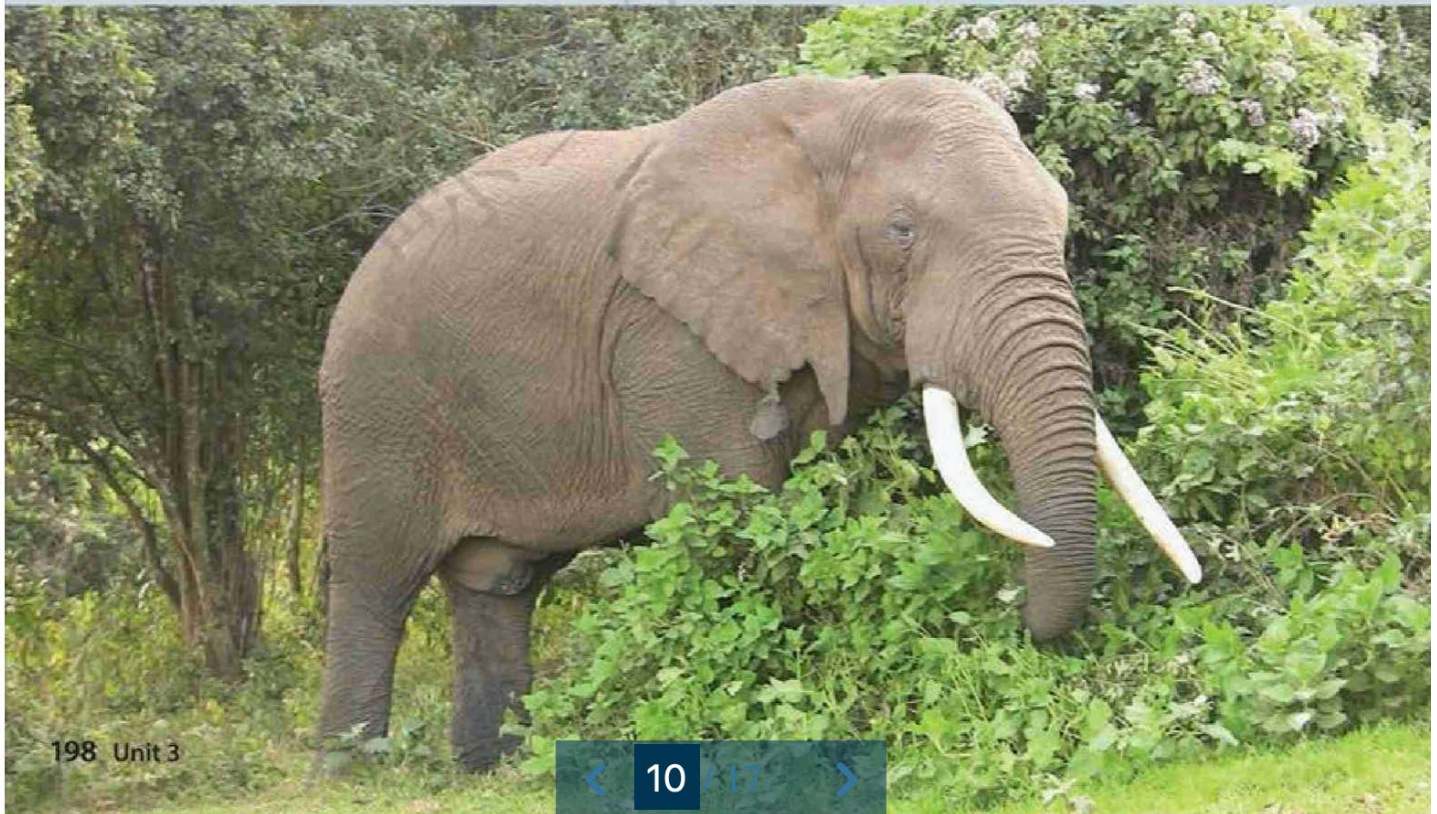
1. **Use Text Features** How do the photographs help you understand the text?
2. **Make Inferences** Why was it important to create the reserve?

A Leafy Home

Many different animals, such as elephants, duikers, and pottos, depend on the forest. Some of the animals make their homes in trees.



▼ An elephant eats plants in the forest.



Many animals also rely on plants for food. Remember the okapi? It eats the leaves of plants that grow well in the **dim** light of the forest. It has a long tongue that rips the leaves off the branches. The Okapi Reserve has plenty of leaves for okapis to **munch**!

▼ An okapi eats leaves that grow in shady spots.



dim low, weak
munch eat

► **Before You Continue**

1. **Make Connections** How does the okapi's long tongue help the animal survive?
2. **Details** Name two ways the plants in the reserve meet the animals' needs.

A Home for Humans

People make their home in the Okapi Reserve, too. **Mbuti Pygmies** have been living in the **rainforest** for hundreds of years. According to one **botanist**, Mbuti Pygmies are “walking dictionaries of nature.” They understand everything about the forest, and they rely on it for food, shelter, and clothing.

▼ A Mbuti Pygmy child fishes.

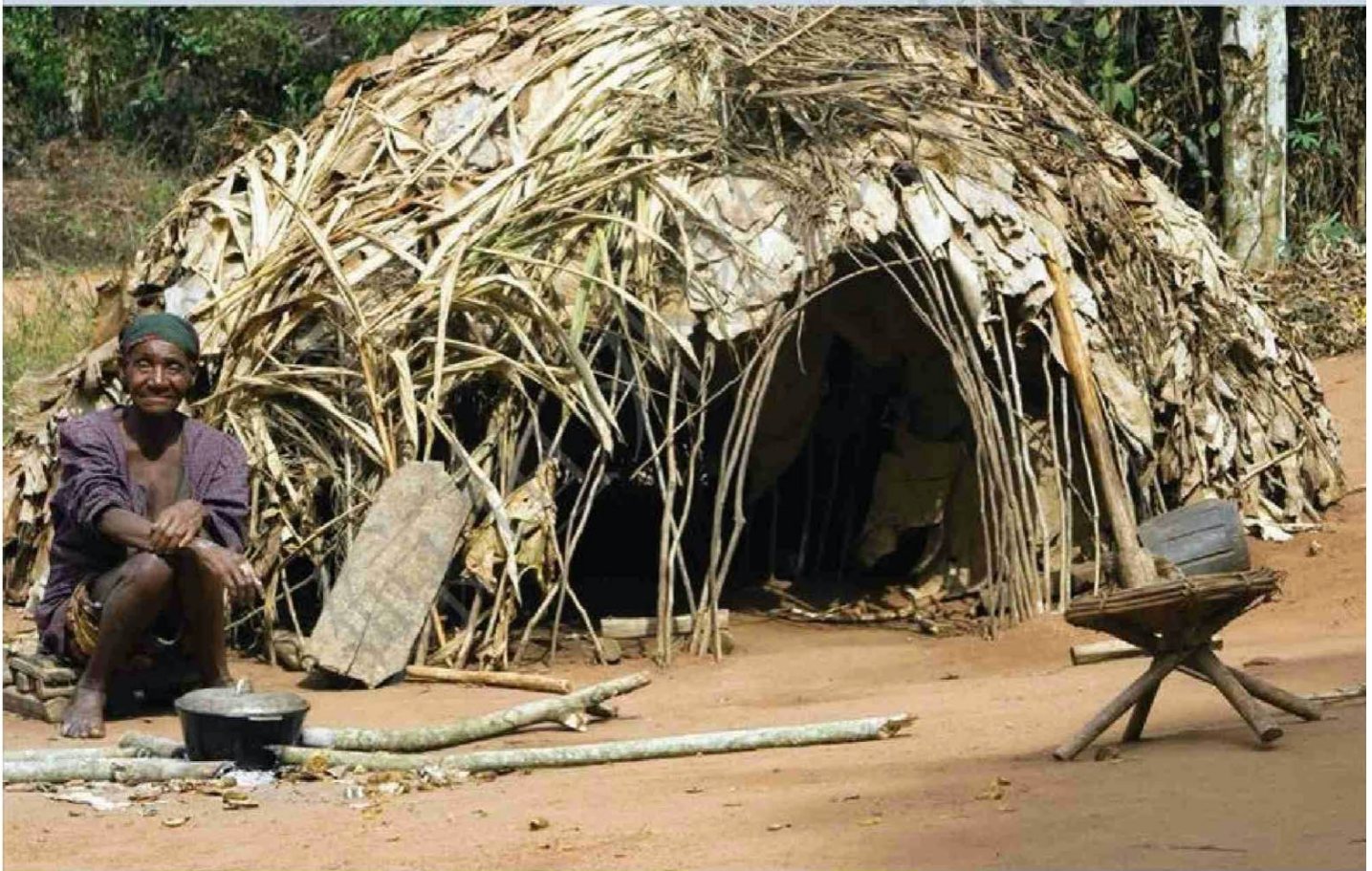


Mbuti Pygmies A group of people native to Africa

botanist scientist who studies plants

Mbuti Pygmies travel from place to place to hunt and fish. They don't just catch **game**, though. They also collect insects, seeds, fruit, and honey to eat. They make nets, arrows, and other **necessities** from forest materials like wood, bark, mud, and leaves.

▼ Mbuti Pygmies made these huts from forest materials.



game wild animals to eat
necessities things that they need

► Before You Continue

1. **Make Inferences** Why do you think Pygmies know so much about the **rainforest**?
2. **Details** Name three things that Pygmies do in the forest.

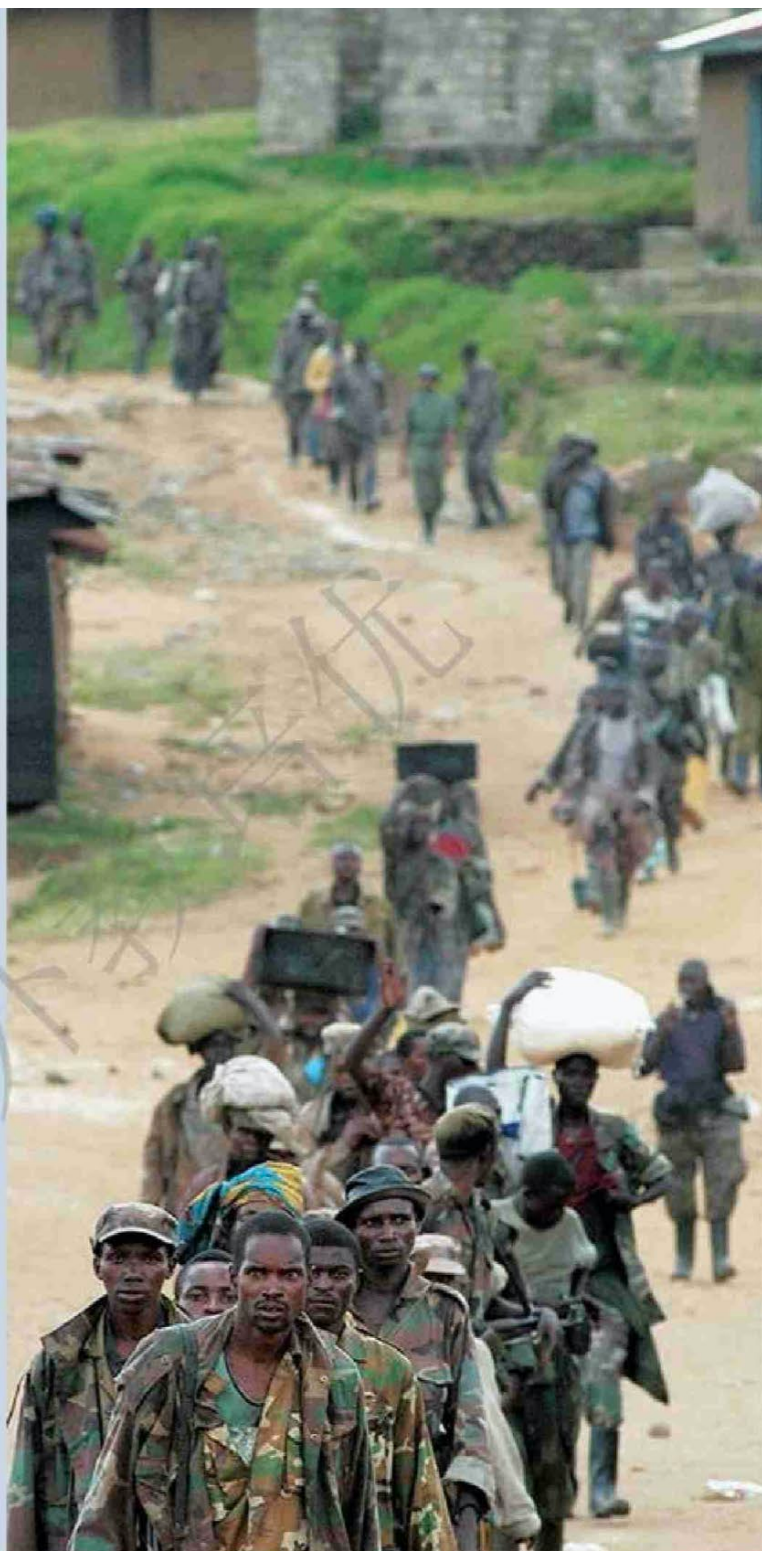
A Brave Botanist

Corneille Ewango is a botanist who works on the reserve. He loves the forest and its plants and animals.

In 1996, something terrible happened. A war **broke out** in Congo. Soldiers **invaded the forest**. They **destroyed** plants and killed animals.

Many of the workers on the reserve ran away, but Ewango wouldn't leave. He knew he had to save the forest. "I was afraid," he says, "but I didn't have a choice."

Soldiers march during the war. ▶



broke out started
invaded the forest came into the forest with force
destroyed ruined





▲ This bridge is important to Ewango. He hid under it once during the war.

Ewango rushed to save what he could. He grabbed computers and buried **data files** in the forest. He packed thousands of **plant samples** in boxes. Friends kept the plants safe.

Ewango hopped on a bicycle and carried other plants into a neighboring country.

Because of Ewango, **unique** and valuable plants were saved. They would continue to grow again after the fighting stopped in 2002.

data files folders with information
plant samples different kinds
of shrubs, bushes, and trees

► Before You Continue

1. **Details** Why did Ewango stay in the **rainforest** during the war?
2. **Make Inferences** How do you know that Ewango is a brave person?

The Future of the Reserve

Today, the Okapi Reserve still faces **threats**. Sometimes people destroy animals' homes. They chop down trees. Yet Ewango and other people work every day to solve these problems.

▼ People sometimes sneak into the Okapi Reserve. They cut down trees.



threats problems

Ewango believes that Congo needs more scientists to study its forests. He is working hard to **train a new generation of students**.

He wants young people to understand and **protect** the Okapi Reserve and other **rainforests** in Congo. ❖

▼ Ewango wants to train young people. He wants to help protect forests in Congo.



train a new generation of students
teach children about plants

► Before You Continue

1. **Details** Name two problems that the Okapi Reserve has today.
2. **Paraphrase** What does Ewango believe about Congo? How is he helping?