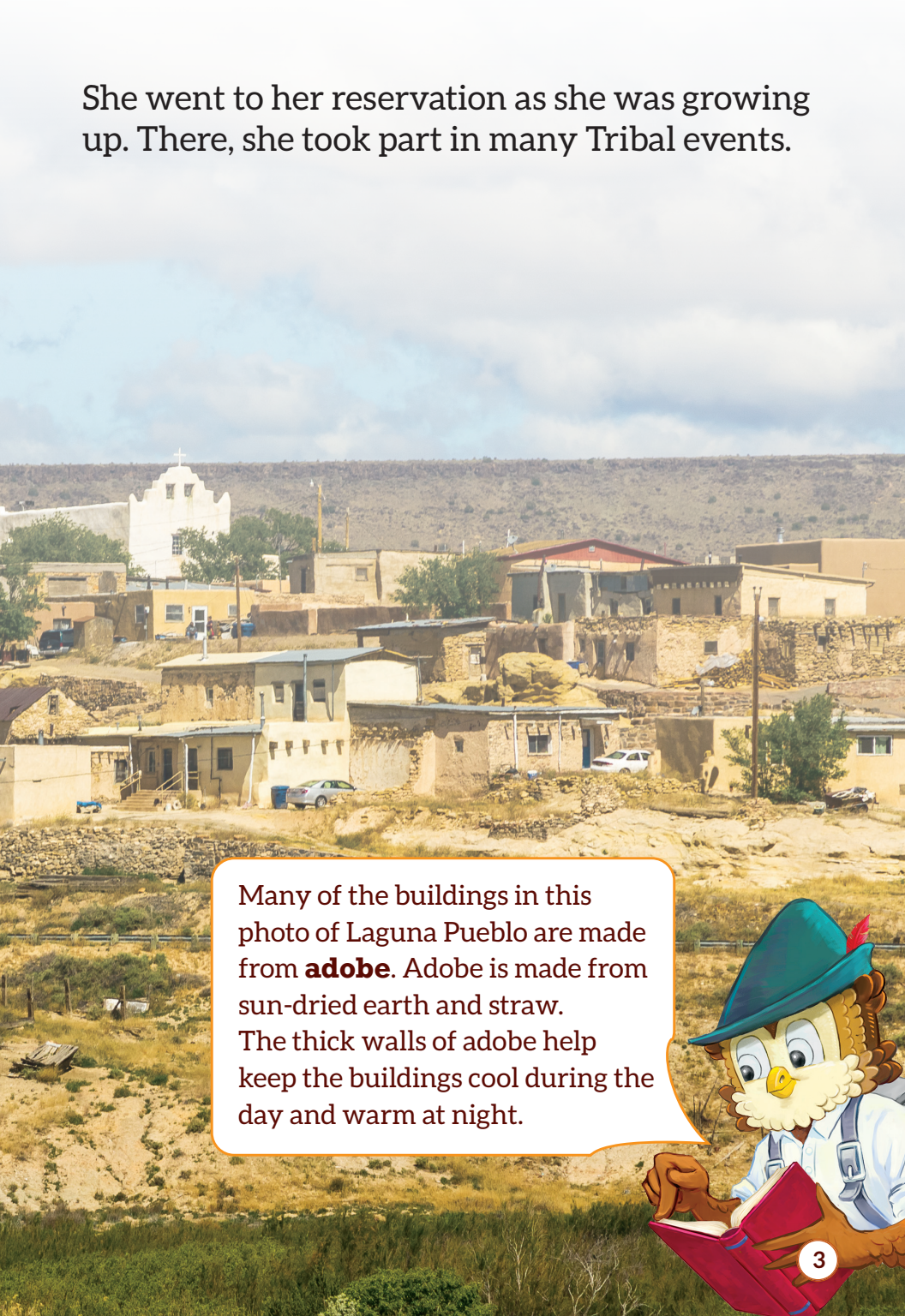
Woodsy Owl wants you to meet his friend Dr. Serra Hoagland!

Dr. Hoagland is a member of the Pueblo of Laguna, a Tribe whose **reservation** is in New Mexico.


The Pueblo of Laguna is a separate nation, like the United States and Mexico. The reservation is land that the Government sets aside for the Tribe. The reservation is located near Albuquerque, New Mexico.

She went to her reservation as she was growing up. There, she took part in many Tribal events.



Many of the buildings in this photo of Laguna Pueblo are made from **adobe**. Adobe is made from sun-dried earth and straw. The thick walls of adobe help keep the buildings cool during the day and warm at night.

During some of these Tribal events, the Tribal members pray for the animals, the plants, and rain. They care about the land and the plants and animals on it.

Dr. Hoagland cared about animals, too. She had a pet cat and a dog named "Hooter." Hooter got his name because his bark sounded like an owl's hoot!

Dr. Hoagland wanted to care for the land, too.
She went to school and became a scientist.
She studies animals.

One of the animals Dr. Hoagland studies is the Mexican spotted owl. The Mexican spotted owl is one of the biggest owls in North America.

Mexican spotted owls can grow to be 19 inches tall. Their wings can spread as wide as 45 inches!
How tall are you? You can use a ruler or measuring tape to find out.

Mexican spotted owls live in places that have dry canyons or mountains with forests. A canyon is a narrow, deep valley with steep sides. A canyon forms when a river cuts through the rock.


Mexican spotted owls live in areas across the southwestern United States and Mexico. These places are called the Mexican spotted owls' **range**.

A range is the whole area where an animal lives. Look at the map. Do you live near the Mexican spotted owl's range?

The owls like dry canyons with steep cliffs.
They can build nests on these steep cliffs.

The owls also like thick forests with tall, old trees and smaller trees and bushes.

These thick forests, with trees and other plants growing close together, are also in danger of big wildfires.

To help prevent big wildfires, workers may remove some big trees or remove some of the smaller trees and plants.

Cutting down some of the trees in a forest is called “thinning.” Thinning takes away plants that might make a fire big and dangerous.

If workers change the forest to stop big wildfires, will the owls still like their **habitat**? Dr. Hoagland knows this is a hard question to answer.


This adult pair of Mexican spotted owls will stay together when it's time to lay eggs and raise their young.

Young owls, like this one, start out with soft, fluffy feathers!

One way to help find the answer is to map where owls live and find out more about those places.

Scientists can watch the habitats to see how they change. Scientists can also look for other habitats the owls like.

Making maps of owl habitats can be hard work. It can take a long time for a person to travel to each habitat. Sometimes the habitats are in places that are hard to get to. For example, a person may have to walk a long way to reach a habitat.

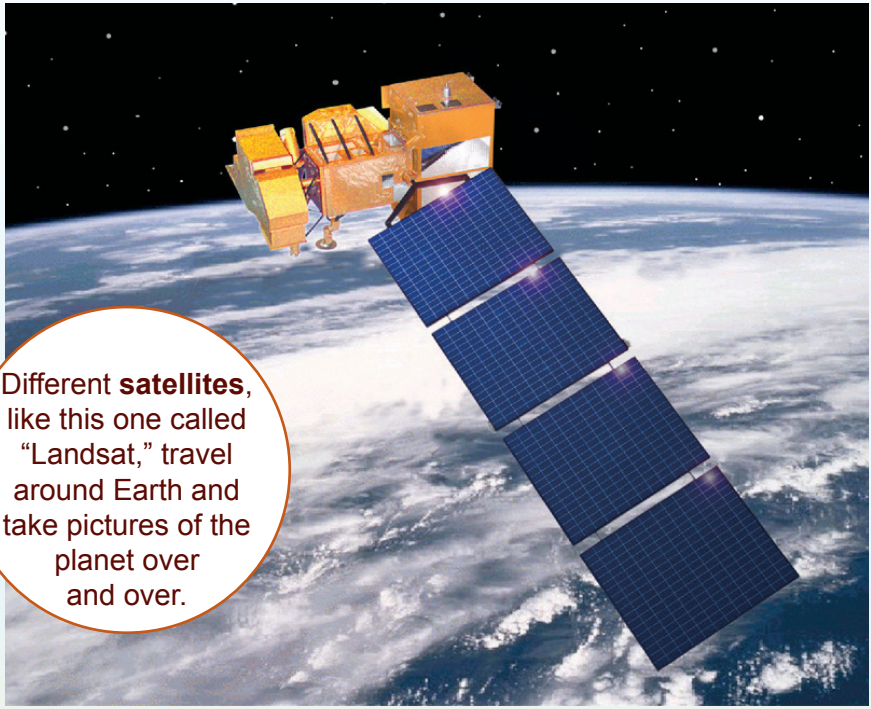
Road

Wildfire Damage

Thick Forest

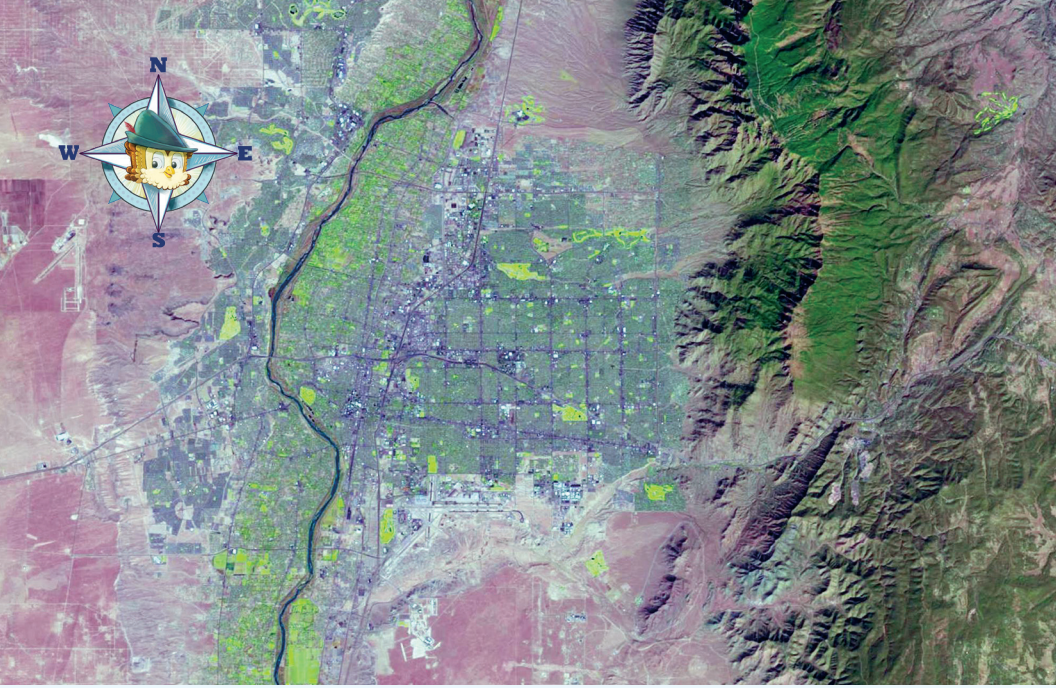
These habitats can change over time, too. A road can be built through a forest habitat. A wildfire could damage the habitat. Small trees and plants can grow up in an open forest and make it very thick. A person has to travel to those places again and again to see if they change.

Dr. Hoagland and other scientists made maps of forest habitats. One way to map owl habitats is to take pictures from space.



Different **satellites**, like this one called "Landsat," travel around Earth and take pictures of the planet over and over.

A satellite is a man-made object that travels around Earth. Many of our phones use satellites to make calls, send messages, or give us driving directions.




This Landsat map shows Albuquerque, New Mexico, a city near the Laguna Pueblo. Areas that have trees and other plants are green. Buildings and roads are gray. You can see the Sandia Mountains to the east of the city.

Dr. Hoagland compares these maps with places she knows have owl nests. She can see how forest habitats change year after year. She can make **predictions** about whether owls will still like their habitats as the forest changes.

Dr. Hoagland's research helps people make good choices about taking care of forests. Learning about owls helps us protect their habitat.

We've asked a lot of questions while we learned about Dr. Hoagland and Mexican spotted owls. Here are some other interesting questions to think about and answer!

## WOODSY WONDERS . . .

1. Name two States in the southwestern United States. Do you live in the southwestern United States? (Hint: Look at the map on page 7.)

2. Think of an animal that lives near you. Describe that animal's habitat. Where does the animal eat and sleep?

3. Dr. Hoagland uses maps to study owl habitats. What are some other things we use maps for?

Here are the new words we learned in this Reader!

# WOODSY'S WORDS

**adobe** (ə **dō** bē): A brick or building material made of sun-dried earth and straw.

**habitat** (**ha** bə tat): A specific place where a plant or animal normally lives or grows.

**prediction** (pri **dik** shən): A guess about the future based on what we know now.

**range** (**rānj**): All the areas where a plant or animal naturally lives or grows.

**reservation** (re zər **vā** shən): An area of land set aside by the government for an American Indian tribe.

**satellite** (**sa** tə līt): A man-made object that travels around Earth, the Moon, or another body in space.