



# RETURN OF THE WOLVES

## These powerful predators are reshaping the U.S. West.

By Kirsten Weir

**W**illiam Ripple was on a mission. Ten years ago he began investigating why aspen trees were disappearing in Yellowstone National Park in the western United States. “It was a real scientific mystery,” he says.

Ripple studies plants at Oregon State University. But to solve the mystery of the disappearing aspens, he wound up focusing his attention on an animal: the gray wolf.

### Bad Wolf, Good Wolf

Gray wolves once roamed across most of the United States. Then early American settlers arrived. Wolves began attacking the settlers’ sheep and cattle. In the early 1900s, ranchers and U.S. government agencies paid hunters to shoot the predators. By the middle of the 20th century, the gray wolf had almost been wiped out of the lower 48 states.



Wolves once lived in much of the United States. Today they live in a few areas around the country.





## Wolf Fast Facts

**Scientific name:**  
*Canis lupus*

**Common names:** gray wolf, timber wolf

**Average weight:** 99 to 121 pounds. Wolves are the largest wild member of the dog family.

**Fur color:** varies from light gray to brown to reddish to black

**Prey:** deer, moose, elk, bison, beavers, rabbits, squirrels

**Territory size:** 50 to 1,000 square miles

**Current range in U.S.:** Alaska, Minnesota, Wisconsin, Michigan, Idaho, Wyoming, and Montana

## Wildlife and Wolves

When wolves returned to Yellowstone, they kept elk away from some parts of the park. Many parts of the environment changed when the elk's behavior changed.

Young aspen grow because the elk don't eat them.

Wolves prey on elk and keep them away.

Beavers return to eat the young willows.



Guy Edwardes/Getty Images

### A Family Affair

Gray wolves live in family groups called packs. Pack members work together to hunt large prey and defend their territory from other wolves. The leaders of the pack are a male and female pair known as the alpha pair. They're usually the only members of the pack that **breed** (have offspring). Baby wolves are called pups. Other pack members include non-breeding adults and pups of the alpha pair. When the pups grow up, they'll set out on their own to form new packs.

Over time, though, attitudes toward the wolf changed. Scientists said wolves were important members of the natural community. In 1995, scientists rounded up gray wolves from Canada and introduced them to Yellowstone. The population thrived. Today, at least 130 wolves live inside Yellowstone. More than 200 others have moved beyond the park borders.

### Wolf Territory

In 1997, Ripple arrived in Yellowstone to study the disappearing aspen. He discovered that new trees had mostly stopped appearing after the 1920's—about the same time gray wolves had disappeared from the region.

Wolves are **carnivores**, animals that eat meat. What did the disappearing wolves have to do with plants? The wolves didn't affect the aspen directly. Instead, the wolves affected animals that eat young trees.

In seven decades without wolves, the park's elk population soared. Elk like to **browse**, or feed, on young tree shoots. So many elk were munching on the shoots that very few trees grew to become tall aspens.

By 2000—five years after wolves were



Elk still live in the park but don't eat in the same places they used to.

Willows grow because the elk don't eat them.

Birds may return to live in the aspen and willows.

Christina Wald

reintroduced—Ripple noticed more willow shrubs growing along the streams. Soon he saw more aspen and cottonwood trees as well. The wolves were back and preying on the elk. That left fewer elk to eat the young trees. “The elk may be moving to safer areas and may not stay in one spot browsing on plants for a long time,” he says.

## Widespread Changes

The changes in the trees have affected other species too. Beavers, which eat willows, have increased in number. Songbirds, which nest in willows, may also be increasing. “We think the reintroduction of wolves will change the entire biodiversity of the area,” Ripple says.

**Biodiversity** is the variety of plant and animal life in an area.

Doug Smith, the leader of the Yellowstone Wolf Project, has also witnessed the changes to the **ecosystem** since gray wolves were reintroduced. An ecosystem is an environment in which animals and plants depend on one another to live. “We [once] viewed wolves as something we didn't want, and we killed them off. Now we're slowly bringing them back, and we're only beginning to learn what those wolves did.” ■

## Spying on

# WOLVES

“Wolves are wily, secretive, and shy,” says Yellowstone Wolf Project leader Doug Smith. “Our goal is to find out as much as we can about them.” To do that, he

catches wolves and fits them with radio collars so he can track them through the park, monitoring where they go and what they eat. He collects samples of blood and **scat**

(dung) to test whether the wolves are healthy. He also spends a lot of time observing them.

Smith has learned to identify individual wolves by the unique color patterns in their fur and other physical features. For example, a wolf he calls Sharp Right has a crooked tail that turns sharply to the right.

Wolves also have unique characters, Smith says. Some are aggressive, some are gentle, some are playful, some are shy, and some are born leaders. “If you watch them enough,” Smith says, “you get a feel for their personalities.”



Jim Peaco/NPS photo



William Campbell/AP Images

This wolf is watching biologists after being caught and fitted with a radio collar like the one above.