Kids Korner

Skilled woodsmen, industrious beavers use their large front teeth to fell trees for their dams and lodges. They can gnaw down trees in minutes and build a new dam in days. The paddle-tailed animals, North America's largest rodent, are being used to restore overgrazed and overlogged rangeland in the West.

A wary beaver sniffs the air and listens. The paddle-tailed rodents, common in most of North America, are natural conservationists: They create new wetlands, improve water quality and attract other wildlife. But they're considered pests in some places because of the damage they can cause to woodlands.

Busy Beavers Help Rescue West's Parched Pastures

PAT DURKIN
National Geographic News Service

Lew Pence was called crazy by Idaho ranchers who thought the only way to restore eroded Western rangeland was to build tiers of $2,000 concrete dams.

But ever since a pair of beavers that Pence relocated to a cattle-trampled stretch of Copper Creek did the job naturally, his how-to slide show has been in great demand.

Today, converts throughout the Western United States are using beavers to restore land that has been overgrazed, overlogged or otherwise abused. Beaver committees have been organized all over the region.

Still, the buck-toothed rodent remains unpopular with a lot of people.

On the positive side, the paddle-tailed dam-builders have proved to be better than humans at Copper Creek and some 30 other areas. When beavers re-engineer a watershed, they create new wetlands and improve water quality. Fish, ducks and grasses return.

"It's not like I deserve a lot of credit," said Pence, who is project manager for Idaho's Wood River Resource and Development Area. "The Indians have been telling us for a long time that we need to put beavers back into the system."

When University of Wyoming researchers supplied logs to beavers living in dried-up creeks near Rock Springs, Wyo., in the 1970s and '80s, the animals built dams and restored the eroded watershed.

Since then, the Beaver Committee of the Wood River organization, a coalition of ranchers and government agencies that fosters economic development in rural southern Idaho, has placed about 30 pairs of beavers along the Copper and other small creeks that water the once-lush grasslands of the Wood River basin.

"We started to show pretty good results several years ago," said Pence, whose traveling presentation makes the point with dramatic before-and-after photographs of Copper Creek.

His pictures tell the story of how beavers reverse the erosion process. In the fall, they build dams of sticks, logs and mud that create moats around their lodges, where the animals spend the winter and rear their young

The dams protect the land by slowing fast-moving storm water and spreading it across the ground to be soaked up by dry soil. Studies show that the dams also catch 90 percent of the eroded topsoil that otherwise would be washed downstream.

In Copper Creek, it took about four years for the level of the severely eroded stream to rise enough for grasses to return. Waterfowl, fish and the tiny organisms that live in healthy streams returned soon thereafter.

"Beavers give more to the system than they take out," said Pence. "They get the water in there, and that's all it takes."

Ecologists have dubbed North America's largest rodent a "keystone species." A Cherokee Indian legend said that God called on the beaver to help finish the Earth.

Archaeologists credit the animal with creating North America's fertile prairies. Evidence of beaver dams dates back 55 million years.

Some scientists date the beginning of the decline of the continent's great wildlife era to the killing of beavers for fur. Rampant beaver-trapping, which started with the opening of the Canadian West in the 1600s, all but eradicated the species from North America by the 1900s.

"Once we took them out of our system, the system went to hell," Pence tells National Geographic. "Then we sat back and wondered what happened."

He praises the return of beavers. Often, a pair will build dozens of dams, restoring parched meadows in as little as two years.

(Turn to Page B15)