

Sierra Nevada bighorn sheep back from the brink of extinction

By Angel Moreno

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Sierra bighorn sheep numbered about 100 until conservation efforts brought the species back from the brink of extinction.

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The Dallas Morning News David Moore and NFL analyst...

Fifteen years ago, just 105 Sierra Nevada bighorn sheep roamed across their namesake mountain range.

Today, they number more than 500.

And just last month, four rams and 10 ewes, nine of which were pregnant, were helicoptered into Big Arroyo Canyon, high in the mountains about 10 miles east of Lodgepole in Sequoia National Park.

That marks a dual milestone — it's the first time bighorn sheep have settled in the Great Western Divide in more than 100 years, while also proving that human intervention can bring the species back from the brink of extinction.

"This shows that recovery is actually feasible and possible," says Daniel Gammons, biologist at Sequoia and Kings Canyon National Parks. "Most species that end up on the endangered species list don't ever come off, and there's a real opportunity here to see success."

It's taken more than a decade of research to make it happen, with the California Department of Fish and Wildlife, the U.S. Forest Service, Sequoia and Kings Canyon National Parks and the U.S. Fish and Wildlife Service all involved in the recovery.

The Sierra Nevada bighorns once numbered in the thousands before settlers started crossing the mountain range in the 1800s, bringing disease and hunting that nearly wiped out the sheep.

In 1971, the Sierra Nevada bighorn was one of the first animals listed as threatened under the California Endangered Species Act. In 2000, the federal government added the bighorn to its endangered lists.

"There was a lot of concern about extinction," says state biologist Tom Stephenson, the recovery project leader. "But with some good fortune and the combination of the right recovery efforts, it's gone as well as anybody could've imagined."

Decades of work

Teams of biologists and volunteers in 2000 began their research and in 2007 started reintroducing the Sierra Nevada bighorns by dispersing them into herds along the Sierra crest.

The agencies designated 16 areas for bighorn with the initial goal of repopulating 12 of them. The new Big Arroyo herd that was established in March near Lodgepole is the 10th. Next on the list are Laurel Creek on the southern end of Sequoia National Park and Taboose Creek on the eastern border of Kings Canyon National Park.

The two parks fully enclose or share a border with 10 of the 16 areas covering about 22% of all designated critical habitat across the Sierra, Gammons said.

Recovery efforts date back to the 1970s when the bighorn population declined to one area — Wheeler Ridge on the northern edge of Kings Canyon. The herd became the source population for recovery efforts in the 1970s and 1980s that introduced sheep to Mono Basin east of Yosemite and Mount Baxter and Mount Williamson east of Kings Canyon and Sequoia.

Now, at a cost of about \$600,000 per year, agencies take a few animals from four source herds that can support removal to create new herds.

Stephenson says that because ewes only birth one lamb per year, he believes it will be another decade before 12 herds are repopulated.

Currently, the estimated 500-plus bighorn sheep are roughly half females and half males. The goal is to have 305 adult and yearling females among the entire population.

Life in the high country

Spotting a bighorn in the wild is like finding a needle in a haystack. They're masters of disguise, blending in with the rocky and snowy mountainsides of the high country with camouflage-like fur.

Bighorn use stellar vision to spot predators and then use the rugged terrain as a means of escape.

They can live anywhere from 11,000-14,000 feet in the warmer months, Stephenson says. During the coldest months, the sheep may migrate to as low as 6,000 feet.

Because of the remoteness of the habitat, Stephenson and his team hike into the backcountry to monitor populations and fly in helicopters around mountaintops to capture the animals with net guns.

Each bighorn is captured individually to be examined, fitted with a collar transmitter and then placed in a box to be flown to a specific herd.

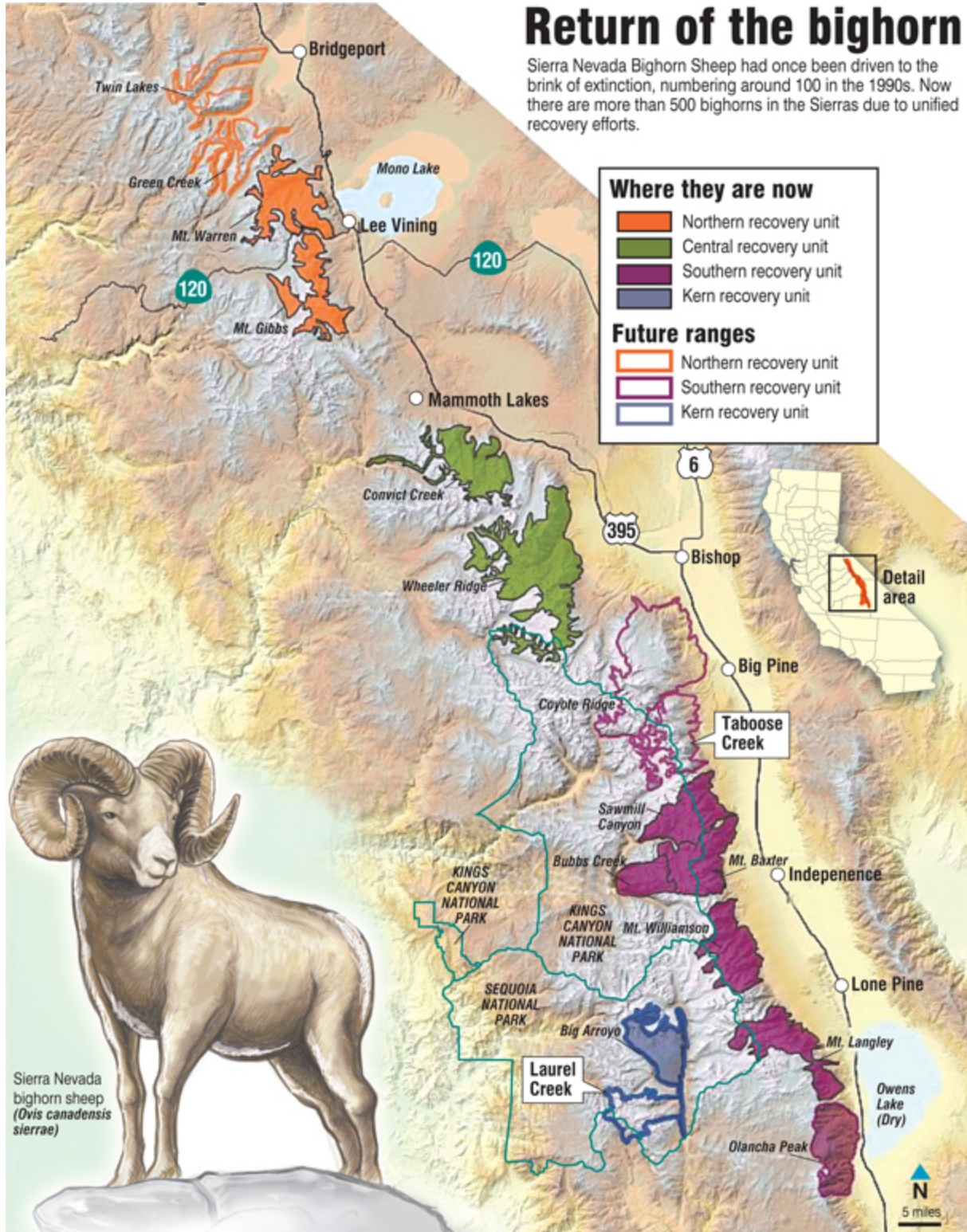
There are some concerns about ongoing drought; one in the mid-1990s significantly cut into the population. But Stephenson and his team are hopeful that by spreading out the herds the sheep will survive and continue to grow in numbers.

Recreation has not been affected by the project, says Dana Dierkes, representative for Sequoia and Kings Canyon National Parks, though regular sheep grazing in national forests has been banned to ensure the health and survival of the bighorn. It's already prohibited in national parks.

Grazing sheep have sometimes introduced disease into herds, with bighorn falling victim to pinkeye, pneumonia and other ailments.

Return of the bighorn

Sierra Nevada Bighorn Sheep had once been driven to the brink of extinction, numbering around 100 in the 1990s. Now there are more than 500 bighorns in the Sierras due to unified recovery efforts.



Sources: California Department of Fish and Wildlife, National Park Service, U.S. Forest Service and the U.S. Fish and Wildlife Service.

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