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United States of extinction: Threat to America's iconic animals



A symbol of America and conservation success

Joel Sartore, National Geographic Photo/ARK/National Geographic Creative

By **Joshua Sokol**

You might think being declared a national or state animal comes with some perks. On 27 April, the US House of Representatives voted to make the American bison the first US national mammal, so what does this mean for this beast that once ruled the plains?

It seems to have been saved from extinction, but the future for this and other feted US animals isn't assured.

American bison (*Bison bison*) were hunted down to fewer than a hundred individuals in the 1880s, but have since bounced back. Whether or not this is a comeback success story, though, depends on your frame of reference.

Herds of bison used to sprawl from northern Mexico to Alaska. The animals that survive today occupy less than 1 per cent of that range – and live in carefully controlled areas. Some aren't even entirely "bison", because many herds have interbred with cattle.

"There's a big question around whether those are truly wild free ranging herds, or whether there is so much management that's happening around them that they are no longer really wild; they're just like ranched cattle," says Craig Hilton-Taylor, head of the International Union for Conservation of Nature's Red List Unit in Cambridge, UK.

"Bison may be more threatened than we currently think they are," he says. "We're going to have to assess it really carefully this year."

Extinction risk

The bison is just one of the iconic American animals in trouble. Some 29 species and subspecies that are official state symbols across 24 US states are at risk of extinction, our analysis has revealed (see interactive map below).

Many were once widespread, or the cornerstones of regional economies, but have since dwindled to small, fragile populations in the wild.



Others are local oddities, like Alabama's Red Hills salamander, which has been seen emerging from its burrows on steep forest slopes so rarely that it was only discovered in 1960.

All of them face shrinking habitats. Aggressive conservation efforts have pulled some of them back from the brink. One success has been Hawaii's nene goose, which crashed to 30 individuals in the 1950s, but now numbers some 2000 birds.

But to survive, these species need more room – and for human communities to be willing to share. And what effects they might have if they return to ecosystems that now do without them is anyone's guess.

Panther on the porch

The Florida panther, namesake of an ice hockey team in Miami, was designated the state's official animal in 1982, and is clawing its way back from near extinction.

In March 2016, a couple of sightings went viral. One cat was photographed resting on a front porch, and another was filmed running towards a startled hiker.

This subspecies of puma, which range from Canada to South America, has all but vanished from eastern North America except for the southern tip of Florida. When it was added to the US Endangered Species Act in 1967, there were only about 30 Florida panthers left.



Not in my backyard?

Joel Sartore, National Geographic Photo/ARK/National Geographic Creative

Today, there are an estimated 180. An infusion of fresh genes from imported Texan pumas in the 1990s helped, and conservation groups continue to add protected land to the panther's preferred territory.

That success has had mixed effects on ecology. As top predators, Florida panthers have helped bring down the numbers of feral hogs. “The hogs used to be the scourge of south-west Florida, because they could do so much damage,” says Greg Knecht of the Nature Conservancy in Tallahassee, Florida. “In many places, there are no feral hogs left.”

The growing number of panthers has also suppressed the numbers of native white-tailed deer and possums. In turn, the smaller size of these prey populations limits the health and long-term safety of the panther population, which is confined to south of the Caloosahatchee river.

“To get the panthers back, you really have to have them in more than one place – more than just that one area south of the Caloosahatchee,” Knecht says.

But he says there is opposition from local cattle owners, who worry that panthers will find calves easy prey. So far this year, two calves, two goats and one dog have been attacked in Florida. “It was easy to love from afar, but having a large predator in your backyard changes the whole equation,” Knecht says.

The bearless state

Over in California, the state flag sports the California grizzly bear (*Ursus arctos californicus*) – a subspecies that went extinct just over a decade after it was chosen to be on a flag in 1911.

Efforts to bring back similar bears have faltered. In 2014, the Center for Biological Diversity in Tucson, Arizona, filed a legal petition asking the US Fish and Wildlife Service to expand its grizzly recovery efforts into new territory in several western states, including California.

Parts of the Sierra Nevada Mountains there seem suitable to host the animal, says Noah Greenwald, head of endangered species efforts at the centre. “It looks like there’s enough space, and it looks like there would be enough food,” he says.

The idea is that the new grizzly bears would fill the same ecological role as their vanished relatives, as omnivores that spread seeds, break up soil and keep prey populations in check.

The Fish and Wildlife Service has rejected the proposal, so Greenwald and his group are focusing on ramping up grassroots support to bring back the bear.

Farmers versus fish

The plight of the pumas and grizzlies is by no means unusual. Several state fish, reptiles and amphibians are endangered because their habitats are disappearing as fresh water sources dry up.

“The thing that really rocks me back is that so many are on the list for much the same cause,” says Brian Richter, who leads the Nature Conservancy’s water programme from Charlottesville, Virginia.

Freshwater species live in the water that humans want to divert into irrigation or homes. The problem is most pronounced in the American West, which continues to be stricken by drought. Half of the streams there are at half the level of what they were, says Richter. “It’s pitting farmers against fish.”

Arizona, Colorado, Nevada and New Mexico all claim unique subspecies of the river trout, beloved



Manatees, a state animal in Florida, are increasing in number (see map)

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by anglers and Native American tribes. But falling water levels, overfishing, competition and crossbreeding with invasive fish all threaten this diversity.

Efforts to reintroduce the fish to native ranges have had mixed results.

The giant Lahontan cutthroat trout is being reintroduced in Nevada from a transplanted, pure strain of fish forgotten for decades in a mountain stream on the border with Utah.

But a similar programme for Colorado's greenback cutthroat trout faltered after a 2012 genetic analysis showed that the restored fish weren't the right population. A new restoration effort, based on an isolated pure strain, started in 2014.

Living together?

The conservation success stories among these animals used as symbols and emblems offer some hope, which extends to less-known species too. "It does show if you get the right actions in place you can turn things around," says Hilton-Taylor. "That's one role of these iconic species. They need large reserves, and that brings in smaller species."

But whether humans will be able to coexist with them remains to be seen. The US Congress's resolution honouring bison offers a hint that the bison isn't going to get preferential treatment now.

"Nothing in this Act," the bill reads, "shall be construed or used as a reason to alter, change, modify, or otherwise affect any plan, policy, management decision, regulation, or other action."

Read more: Reviving Europe's long-lost beasts through mass rewilding; Meet the animals that are defying odds by escaping extinction
