

Cross-border

The increase in the number of sightings of young jaguars in the Southwestern United States is giving conservationists hope that breeding populations could return, but one big obstacle is the US–Mexico border wall, writes Roman Goergen



The unexpected image captured on a black-and-white digital photo on 23 November 2023 gave conservationist Meagan Bethel, who works for the American organisation Sky Island Alliance, something of a shock. She is responsible for analysing the images taken by around 180 camera traps used for wildlife monitoring that the Alliance has set up on both sides of the US–Mexico border.

In the states of Arizona and New Mexico on the US side,

and Sonora in Mexico, automatic motion detectors trigger more than a million such images per year for the conservationists. The analysis isn't always thrilling and takes long hours, and on this occasion Bethel, a native of Arizona, had been hoping for her favourite animal, the ocelot, in the pictures from the Whetstone Mountains. But the spotted cat on Bethel's monitor was much larger: a jaguar – in the US, an almost impossible photo.

commuters

The jaguar (*Panthera onca*) is the largest big cat in North and South America. Today, an estimated 60,000 jaguars still exist between northern Argentina and northern Mexico, with the vast majority (more than 55,000) found in the Amazon basin. Habitat loss – particularly the destruction of corridors that connect isolated populations – is a serious threat to the jaguar, especially in Central and North America.

Back at the Sky Island Alliance office in Tucson, Arizona, the sensational discovery quickly made the rounds. Programme director Emily Burns described her feelings at the time as a mixture of “excitement and concern”.

The camera, she explained, “wasn't where we would expect to find a jaguar. It was much further north, so the animal was clearly moving into new territory.” The question then was, where was this young male heading?

In the following month, the jaguar's trail became clearer. Identified by his unique spot patterns, the same jaguar appeared on video from another camera trap about 50km further south, in the Huachuca Mountains. The southern part of these mountains is in Mexico, from where the animal originated. Such movement through a north–south corridor had never before been recorded for jaguars in the border region.

The Whetstone and Huachuca Mountains are part of the so-called Sky Islands, a group of 55 peaks in the Southwestern US and northern Mexico that rise like islands from the desert sea of the region. These peaks, however, are intersected by a controversial structure: the border wall, which was significantly expanded during the Trump administration.

“Two-thirds of the border between Arizona and Mexico is already sealed off by the wall, so jaguars can no longer get through here.”

RECOVERY PLANS

Jaguars were heavily hunted in the US in the past, particularly in the 1960s, mainly by government agencies. The last American female was shot in 1963, and the last male two years later. The outlawing of hunting in 1969 was implemented too late. Since then there have been occasional sightings or at least rumours, but researchers have noticed a more consistent presence of cross-border movements from Mexico, particularly since 1996.

When Megan Southern began her work at the Center for Biological Diversity in Arizona that year, two jaguars were photographed north of the border. The researcher, who has also served as coordinator of the Northern Jaguar Project since then, counts at least eight distinctly different and definitively documented jaguars that have been in the US between 1996 and 2023, all of them males.

The events of 1996 also changed the stance of the US government agency that was responsible, the US Fish & Wildlife Service (USFWS). The federal Endangered Species Act (ESA), passed in the United States in 1973, legally obligates the USFWS to assist threatened or endangered species, for example by developing recovery plans or designating protected areas.

Currently the crucial question for determining whether the USFWS has such a legal obligation towards jaguars is whether the animals exist in the United States or not. “Because of the 1996 sightings,

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Burns explains. What remains is a roughly 50km section between the Patagonia and Huachuca Mountains that only has vehicle barriers, which animals can easily overcome and has thus become a hotspot for wildlife conservation.

Despite the border wall, then, jaguars seem increasingly intent on returning to the US. In 2023 alone, there were five sightings. Researchers emphasise that the animals could not always be clearly identified in the sometimes poor-quality images, and that it could, therefore, be the same jaguar in some cases, but Burns believes a trend is possible.

the USFWS began examining whether habitat should be created for jaguars and started putting together a team of experts,” says conservation ecologist Eric Sanderson, who at the time worked for the Wildlife Conservation Society (WCS) and whose role subsequently as a leading member of this group was to develop habitat models to determine where jaguars could potentially become re-established in the United States.

IMPACT OF THE BORDER WALL

“The result was a recovery plan, released in 2018, in which the USFWS concluded that there was only enough habitat in the US to support six jaguars. Since this would not constitute a viable population, conservation efforts should focus on

Mexico instead,” says Sanderson, who disagrees with his former employers’ conclusions: “Our models showed that there is much more suitable habitat north of the border than was considered in that report.”

Focusing conservation efforts on Mexico makes sense on certain levels for some American conservationists. There, a state-run protection programme established in 2005 has already significantly stabilised jaguar populations. A scientific census from 2018 showed a 20% increase in the country’s jaguar numbers over eight years, to an estimated total now of 4,800 animals.

Contributing to this success story is the Northern Jaguar Reserve in the Mexican state of Sonora, which lies just under 200km south of the Arizona border. Experts believe that the increasing sightings in the US are due to the success of this more than 22,000ha reserve. It is estimated that between 80 and 120 jaguars now live there. “More offspring in this reserve will lead to more young males moving north to establish their own territories,” explains Burns.

All eight jaguars definitively identified in the US since 1996 have been male. Young males leave their family to find their own territory and a mate. But a female jaguar would be unlikely to undertake the 200km journey from the Northern

open-pit mining as major problems.

Sanderson, however, believes that a return of the jaguar is possible, even under a Trump administration. With two scientific papers published in 2021, he and his fellow researchers challenge the USFWS’s view. They focus on an area further north, 200km from the border and already 400km from the Mexican reserve. This Central Arizona/New Mexico Recovery Area (CANRA) is located in the central mountain ranges of Arizona and New Mexico and covers about 8,000km². “There is significant habitat there with few people, plenty of prey, and enough vegetation suitable for jaguars,” says Sanderson.

The area he is talking about is 80% publicly owned and already managed for wildlife, currently especially for deer and elk hunting. According to the studies, the CANRA could eventually support between 90 and 150 jaguars. For now, however, this will not happen. In January 2024, the USFWS rejected a petition for a jaguar reserve based on the two papers. American environmental organisations are considering taking legal action against this decision. **R**

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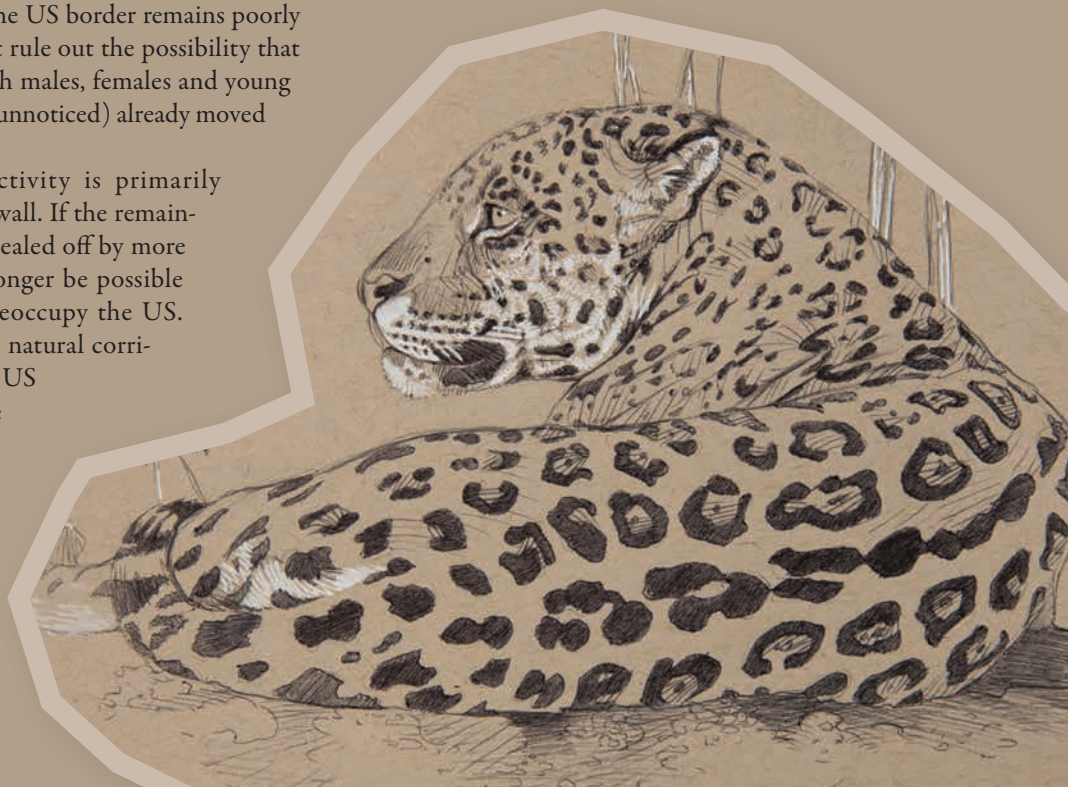
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Jaguar Reserve to the border on her own, which means that a reproducing and viable population cannot yet be established in the US. What happens in reality is that the young males, unable to find a mate, simply turn back.

However, the jaguar population in the 200km between the Mexican reserve and the US border remains poorly studied, so Burns does not rule out the possibility that a breeding population with males, females and young might have gradually (and unnoticed) already moved northwards.

This hope for connectivity is primarily obstructed by the border wall. If the remaining wildlife corridors are sealed off by more construction, it will no longer be possible for jaguars to naturally reoccupy the US. “The animals simply need natural corridors to move between the US and Mexico. They must be able to return to their population centres and also be able to adapt to climate change,” Burns adds. Besides the border wall, she sees highways and

Artwork by Diana Höhlig, for the Jaguar ID Project www.wild-glance.com



CUMBRIAN COAL MINE RULED UNLAWFUL

High court rules against Whitehaven coal mine, as campaigners call for the project to be refused once and for all



The high court has rejected planning permission for the controversial Whitehaven coal mine in Cumbria, marking a significant win for environmental campaigners Friends of the Earth (FoE) and South Lakes Action on Climate Change (SLACC). The court ruled that the climate impact of burning the coal, which accounts for 99% of the mine’s emissions, had not been properly considered when approval was granted in December 2022 by then housing secretary Michael Gove. “This mine should never have been given permission in the first place. The case against it is overwhelming,” said Niall Toru, a senior lawyer at FoE. SLACC trustee Duncan Pollard also welcomed the verdict, saying, “It is now doubly clear that fossil fuel companies cannot ignore the combustion emissions caused by their products.”

This is a summary of the article written by Catherine Early and published by *The Ecologist*, 14 September 2024. Full article at: tinyurl.com/ecologist-coal-mine-unlawful Words by Yasmin Dahnoun, Editorial Assistant at *Resurgence & Ecologist*.

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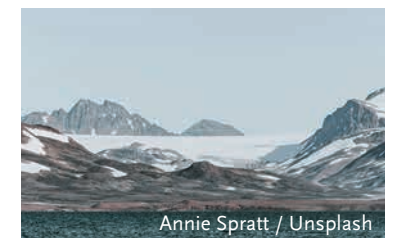
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