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Border Wall BLUES

Barriers lead to unforeseen environmental problems

Mexican immigrants aren't the only ones who might find Donald Trump's border wall an insurmountable hurdle. Add to the list: jaguars, bighorn sheep and even pygmy owls.

Most of the opposition to Trump's wall has focused on its cost, impracticality and the underlying inhospitality to immigrants it represents.

But environmentalists say the impact on the land and wildlife is another consideration. "We already have hundreds of miles of walls built along the U.S.-Mexico border and they are causing a lot of environmental harm, including flooding in places where they block waterways," says Dan Millis, who runs the Sierra Club's Borderlands Campaign in Tucson, Ariz. "They create problems for wildlife when they block migration corridors."

Millis points to environmental research to buttress his claims. For example, a 2014 paper by



MAN AGAINST NATURE: Photos from the Arizona border show how walls can disrupt the flow of water, sustain damage in floods and harm animals.

a University of Bristol doctoral student, Jamie McCallum, used hidden cameras to look for wildlife at the border wall and found that puma and coati were avoiding it, while unauthorized immigrants were undeterred by it. The paper was published by the Public Library of Science, a San Francisco nonprofit.

University of Arizona research scientist Aaron Flesch's 2009 article in the journal *Conservation Biology* says that border walls can prevent the migration of bighorn sheep and even pygmy owls, which typically fly at altitudes lower than the walls.

Jesse Lasky, a University of Texas doctoral student who is now an assistant professor of biology at Penn State University, looked at at-risk animal species

in a 2011 paper for the journal *Diversity and Distributions* and found many, including four threatened with extinction, the Arroyo toad, the California red-legged frog, the black spotted newt and the Pacific pond turtle.

"The border areas are the most biodiverse in the United States and this is not a great situation for species that are found there," says Lasky. The researchers note that the existing border walls are typically accompanied by roads and stadium lighting, making the areas even more inhospitable to animals.

The walls also affect the flow of water. Millis says the fence is to blame for a torrent that caused two deaths in the U.S.-Mexican border town of Nogales in the summer of 2008.

So far as the effects of border walls go, there's plenty of experience to go by. President Bill Clinton's administration built miles of wall around border cities in the early 1990s. A 2005 law allowed the Homeland Security Department to waive environmental reviews in building border fortifications and a 2006 law authorized hundreds of more miles of fencing.

There are now more than 350 miles along easy crossing points, mainly in Texas and Arizona. Some of the tall, concrete walls, impenetrable to wildlife, cut right through wildlife refuges.

It'll be hard to fence much more, Millis says, given that the areas that remain are either in mountains, canyons, remote areas or on private property. Go after the latter, Millis warns, and "You're talking about hundreds of condemnation lawsuits."

— Shawn Zeller