

# Conservationists find protected areas worldwide are shrinking

May 31 2019, by Bob Yirka

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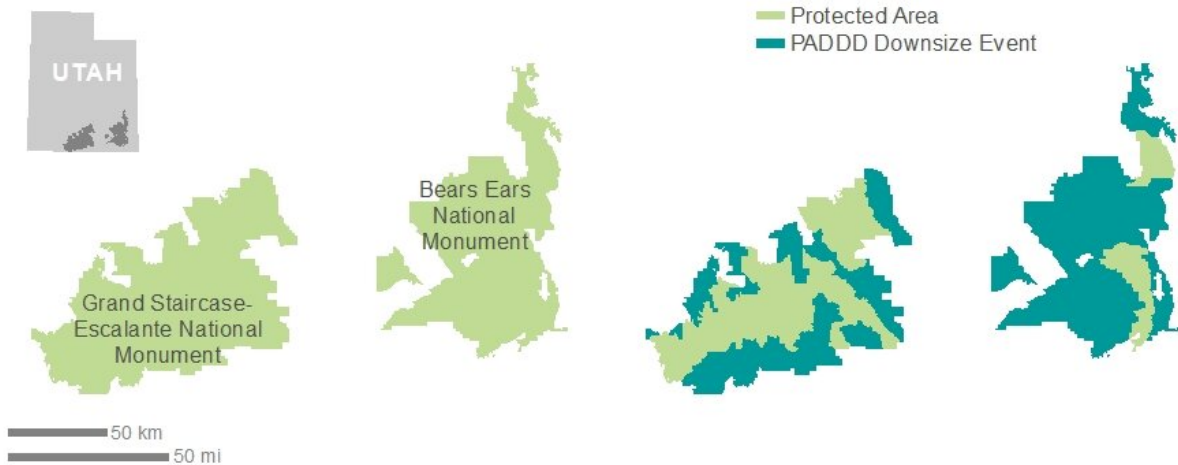
Iguacu National Park, Brazil. Credit: Haroldo Castro/Conservation International

A large international team of researchers reports that the amount of land designated as protected around the globe is shrinking. In their paper published in the journal *Science*, the researchers describe their study of protected lands over the past 200 years, and what they found. Lisa

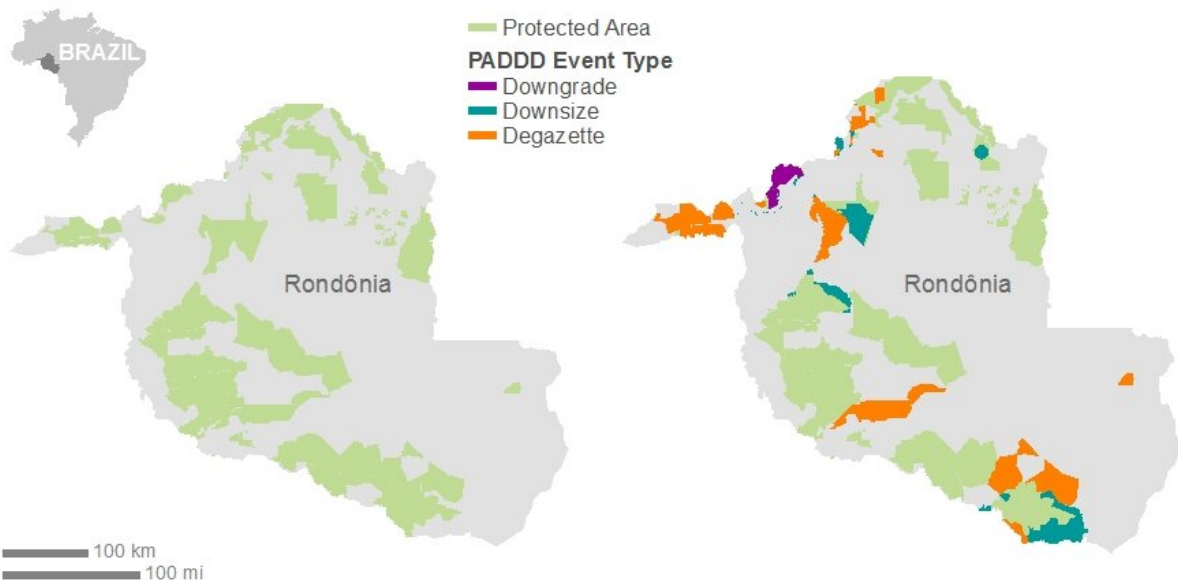
Naughton-Treves and Margaret Buck Holland with the University of Wisconsin and the University of Maryland, respectively, have published a Perspective piece on the work done by the team in the same journal issue. They also note that not all downgrades are a threat to biodiversity.

For much of modern history, governments and national leaders have set aside land under their jurisdiction to prevent it from destruction by human activities. But as the researchers note, governments are also free to remove such restrictions if they so desire. In this new effort, the researchers studied the history of land protection and protected area downgrading, downsizing and degazettement, or PADDDED, over the past two centuries.

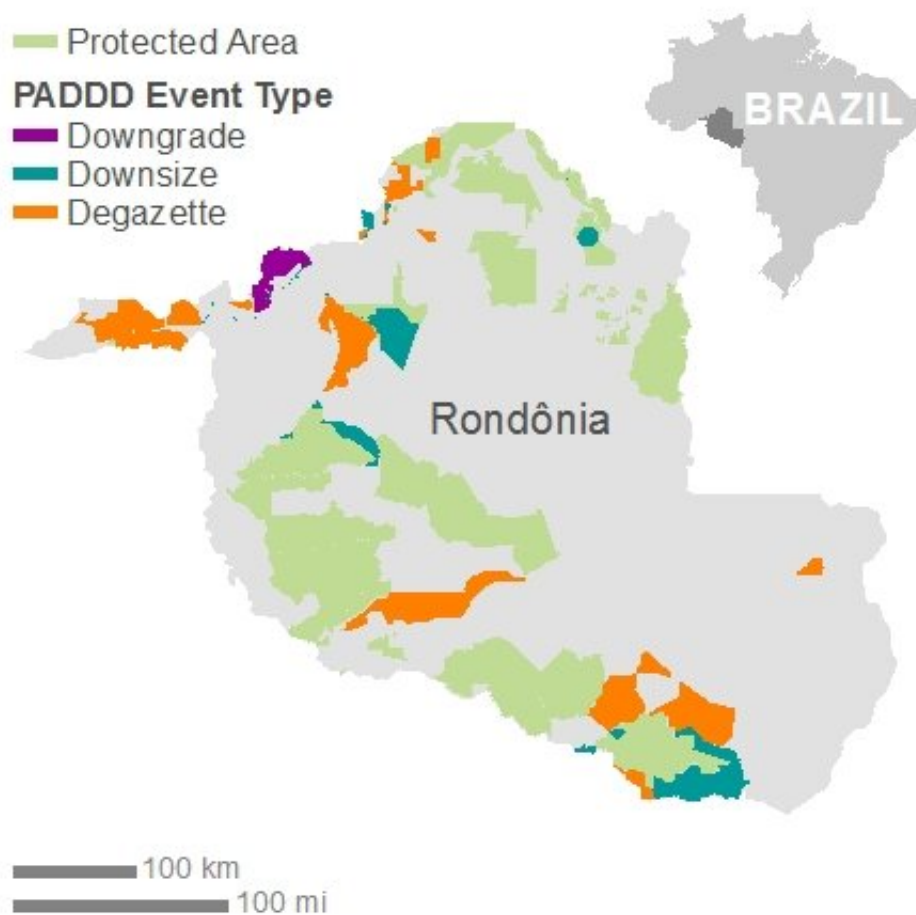
The researchers report that they found that approximately 2 million square feet of land around the world has been PADDDED, since 1892. Furthermore, they found that approximately 78 percent of that land downgrading has occurred over just the past 20 years. In their report, they focused most strongly on PADDDEDing in the U.S. and Amazonia. They found that approximately 90 percent of the land downgraded in the U.S. over the past two centuries happened over just the past 20 years. And sadly, approximately 99 percent of such land was downgraded so that it could be used for industrial purposes.



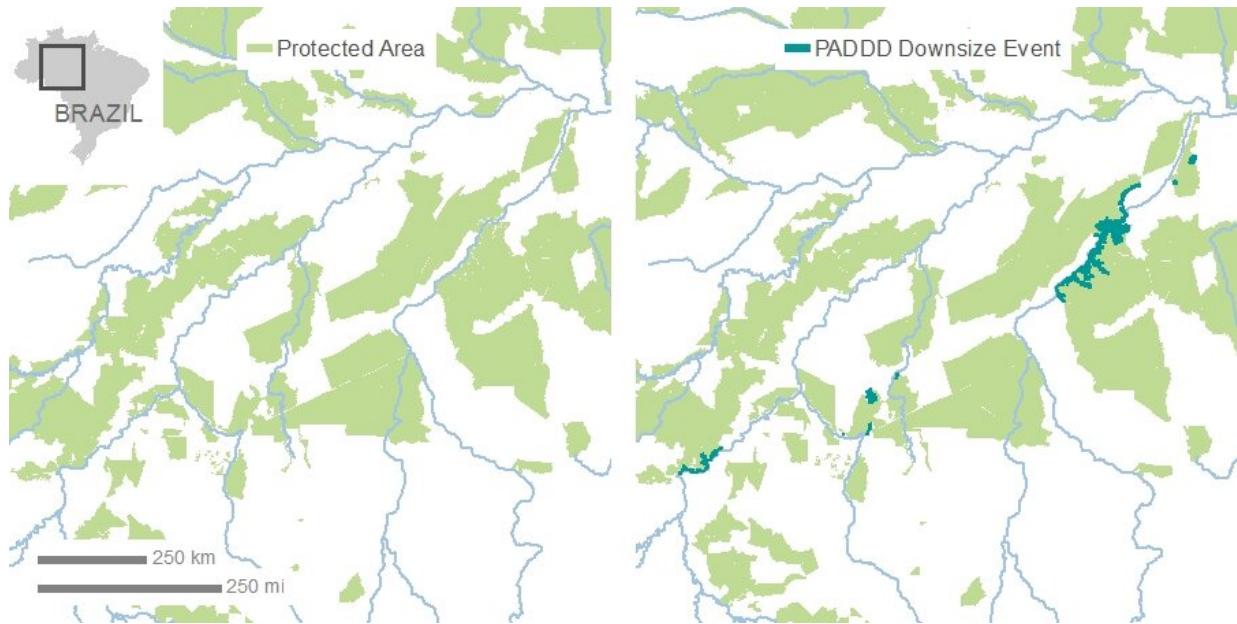
Grand-Staircase Escalante and Bears Ears National Monuments, before and after downsize. Credit: Rachel Golden Kroner



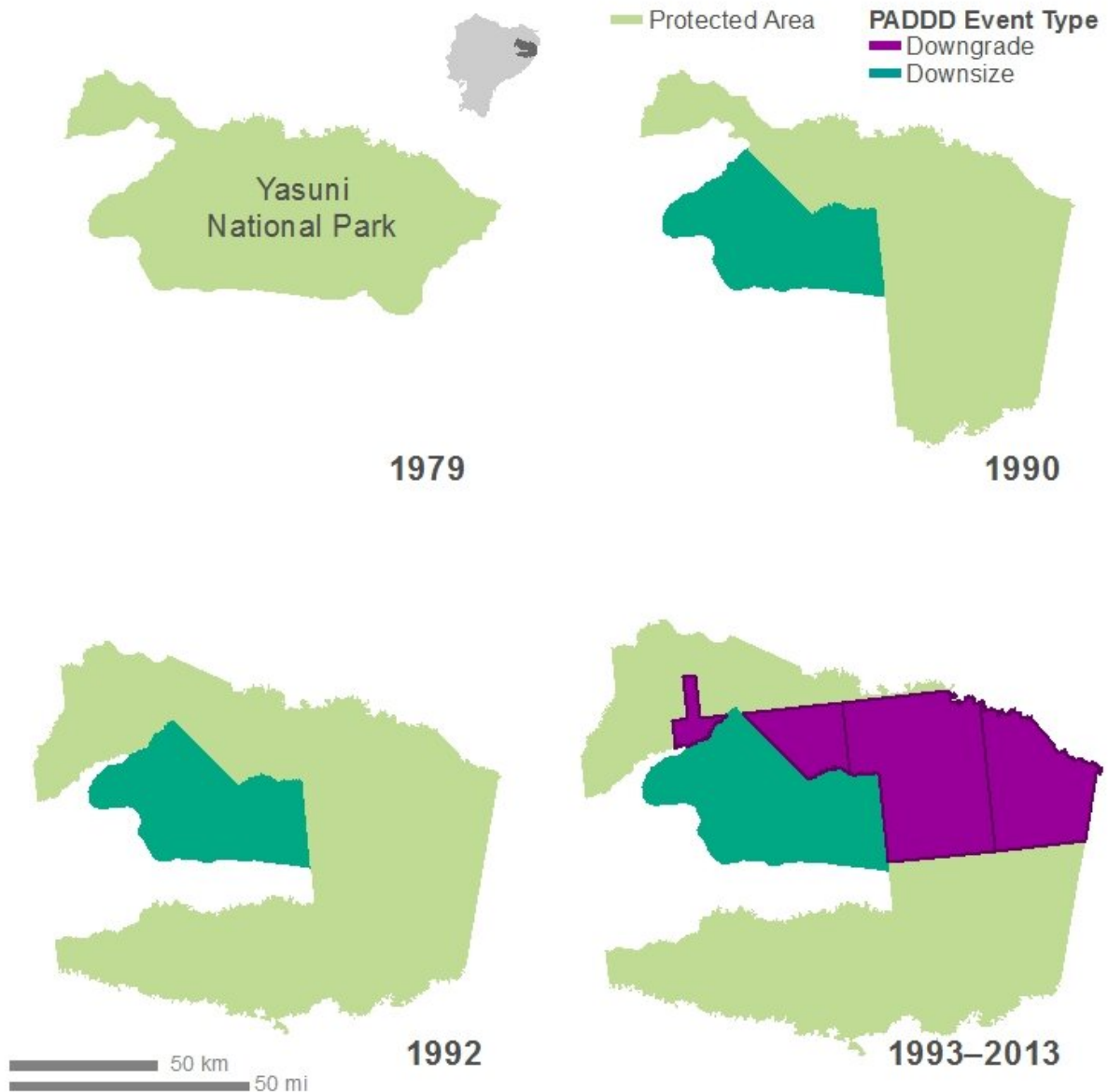
Protected areas before and after downgrading, downsizing, and degazette events in Rondônia, Brazilian Amazon. Most events were enacted to authorize the construction of the Jirau hydropower dam. Credit: Rachel Golden Kroner



Downgrading, downsizing, and degazettement events in Rondônia, Brazilian Amazon. Most events were enacted to authorize the construction of the Jirau hydropower dam. Credit: Rachel Golden Kroner



Protected areas downsized in Brazil to authorize the construction of the Tapajos hydropower dam (before and after). Credit: Rachel Golden Kroner



History of boundary changes and downgrades in Yasuni National Park, Ecuador.  
Credit: Rachel Golden Kroner

The researchers suggest that the trend of removing restrictions from protected lands could have an impact on other countries looking to shore up their economies, leading to removal of restrictions in other countries.

More optimistically, Naughton-Treves and Buck Holland suggest that rather than look at downgraded land totals, environmentalists need to look at how land is being used. They note that while there is generally more biodiversity inside of [protected](#) areas than out, there are other factors at play as well. One such factor, they point out, is the impact that protecting wildlands has on people living in the area—especially poor people. In many areas, the result is great hardship. They also note that the degree of harm brought to downgraded areas depends very much on the types of industries that come in. Some, they note, such as extractive industries, are particularly damaging. They suggest that local entities should be the ones making land protection decisions rather than remote entities, allowing more thoughtful management of valuable land.

**More information:** Rachel E. Golden Kroner et al. The uncertain future of protected lands and waters, *Science* (2019). [DOI: 10.1126/science.aau5525](#)

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