As I posted last year, the Trump Administration is proposing to repeal an Endangered Species Act (ESA) regulation that limits destruction of habitat for listed species. Specifically, the proposal is to repeal the definition of "harm" in the regulations. That regulatory definition includes some forms of habitat destruction within the meaning of harm. And "harm" is in turn included in the statute within the definition of "take" which is prohibited under Section 9 of the ESA.

How big a deal would this change be for endangered species in the United States? There are other legal protections against habitat modification: Species on federal lands are somewhat protected from habitat modification, and states may have their own endangered species law that protect species from habitat modification.

As part of a broader study just published in Conservation Letters, Berry Brosi (University of Washington) and I examined what the impacts on species would be from a repeal of Section 9's prohibition on habitat destruction on private lands. We first assessed all state-level endangered species and wildlife law protections for all species as of June 2018. We also obtained data on the location of known occupied habitat patches for all ESA-listed species as of the summer of 2018. We then saw how many of those habitat patches lost protections if, instead of uniform federal protection, there was only protection for habitat patches on federal lands, or where state law provided protection. (We only undertook our analysis for ESA-listed animal species, since plant species do not receive any significant habitat protection under the ESA.)

The results are striking: For ESA-listed species that are threatened by habitat modification (almost all of them), 42.4% of habitat patches would lose protection without the federal ESA's prohibition on habitat destruction. But that top-line number masks a huge variability across species, with some species losing almost all protections. One quarter of ESA-listed species would lose 95% or more of their habitat protection with such a change.

There is also substantial variation across states. We examined the average proportion of habitat patches protected across species within each state. In seventeen states the average level of habitat protection for all resident species was less than 25%, which means the average species lost more than 75% of its protected habitat.

We also note that our assessment is a conservative one that probably overestimates protection that might be available to listed species. The repeal of

Section 9 take prohibitions for habitat modification might significantly reduce protection from habitat modification on federal lands as federal agencies are less constrained in what they can do. And state protections may not actually be enforced on the ground.

In short, the changes proposed by the Trump Administration (which have yet to be finalized) could be devastating to many species in the United States.