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The influence of political dynamics on biodiversity preservation: the case of the United States

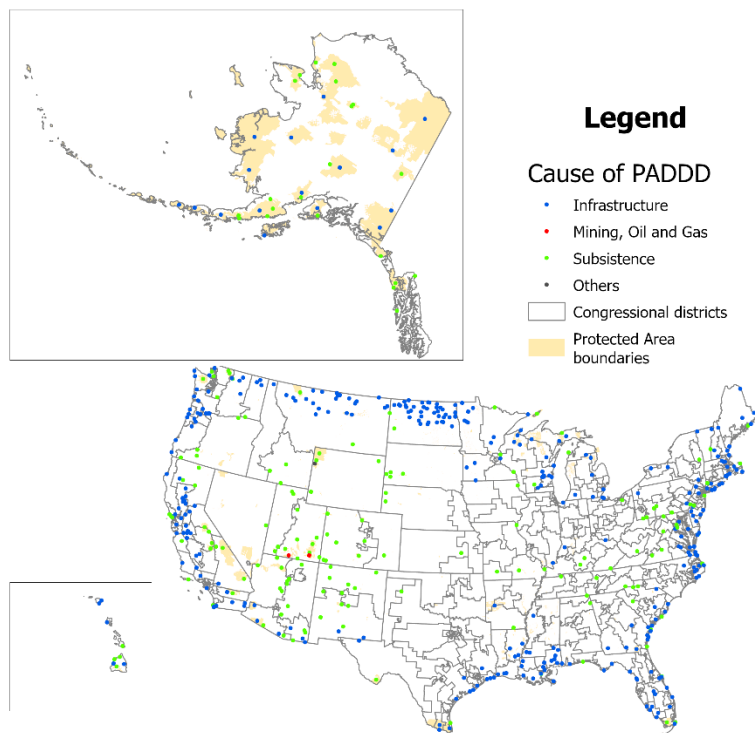
Protected areas have historically been created to preserve biodiversity, but they are not immune to political decisions. Using the United States as an example, and relying on data from 2001 to 2018, researchers from INRAE, the Institut Agro Montpellier, Duke University have demonstrated that a shift to a Republican majority in state government increases the risk of reducing or downgrading protected areas. These results, published in the journal *Ecology and Society*, highlight the powerful influence of political orientation on conservation decisions.

Scientific evidence attests to a loss in biodiversity: according to the IPBES, 75% of the Earth's surface has been altered by humanity, and 1 million species—out of an estimated 8 million—are under threat of extinction¹. In 2022, COP15 reached an agreement to protect 30% of the planet's land, sea and freshwater by 2030. Despite these international commitments, a number of factors may make this goal difficult to achieve. Previous studies have highlighted the influence of economic pressures on the downgrading—authorisation of activities previously prohibited within the protected area—, downsizing and sometimes even degazetting of protected areas.

To date, few studies have examined the role of political dynamics in environmental conservation. Researchers from INRAE, Institut Agro Montpellier, Duke University have analysed the case of the United States, from 2001 to 2018, to study the effects of political changes on the preservation of protected areas.

In this study, the research group analysed 861 proposals and 233 measures adopted by the House of Representatives and the Senate, establishing a clear distinction between proposals to Congress aimed at reducing protected areas and actual enactments. In total, there were 583 proposals and 5 enactments for infrastructure reasons, 94 proposals and 2 enactments for mining or oil extraction, and 1 proposal and 222 enactments for subsistence reasons.

¹ Díaz S., Settele J., Brondizio E.S. et al. (2019). Summary for policymakers of the global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. IPBES.



Source: authors, based on PADDDtracker and PAD-US data

Caption: the map indicates the reason behind the proposed or adopted downgrading/downsizing of protected areas: infrastructure development, mining and oil exploitation or subsistence (for example, restoring the rights of local tribes to harvest plants).

To estimate the influence of political representation on these decisions, research was based on the political affiliation of the elected representatives, both at district level for the representatives to the House of Representatives, and at state level for the 2 senators. Using advanced statistical methods, researchers then assessed the influence of political variables, meaning changes between Republicans and Democrats, as well as the effects of the economic conditions in the districts on legislative decisions concerning protected areas.

The analyses show that when a district's representation shifts from Democratic to Republican, the probability of seeing a proposal or the enactment of a project to downgrade or downsize protected areas increases from 2.1% to 4.7%. This probability increases from 0.1 to 4.3% in the event of a change of majority in favour of the Republicans in the House of Representatives, and from 2.2 to 5.7% in the Senate. This observation reveals the vulnerability of protected areas in the face of political dynamics, highlighting the fact that conservation decisions are strongly influenced by the political orientation of the elected representatives.

Using complementary analyses, researchers were able to determine that their results were essentially due to proposals to downgrade or downsize protected areas, rather than to their enactment. Although the proposals do not always result in legal change, they do exert pressure to reduce protection and are a good indicator of political positions on environmental efforts.

Researchers plan to continue their work, investigating the mechanisms that facilitate or hinder the acceptance of proposals for legislation on protected areas, and the extent to which these proposals can be used strategically by certain candidates in a re-election context.

Reference:

Le Velly G., Delacote P., Golden Kroner. et al. (2024). Politics Driving Efforts to Reduce Biodiversity Conservation in the United States. *Ecology and Society*, DOI: <https://doi.org/10.5751/ES-15338-290327>

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