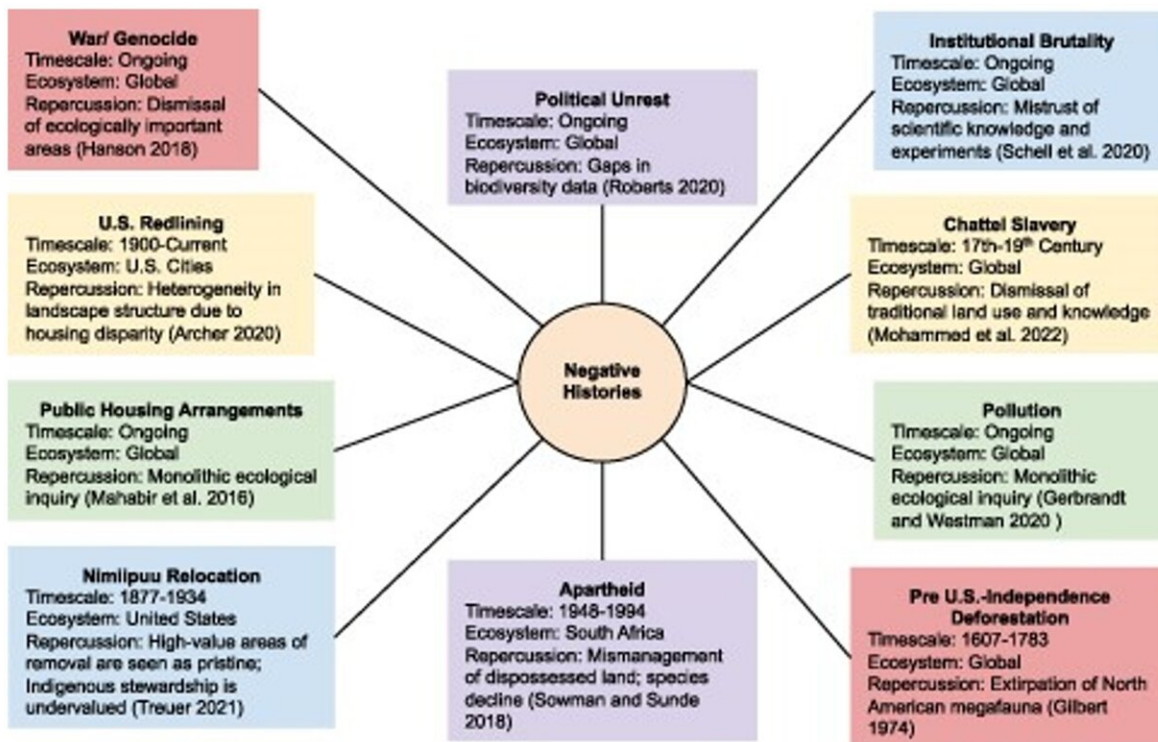


# Bolstering ecology by overcoming social-ecological landscapes of fear

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To demonstrate the diversity in which violent histories persist we share 10 explicit examples that show the global scale in which violence occurs and the varying and shifting timescales in which the repercussions of negative histories occur. Credit: *BioScience* (2022). DOI: 10.1093/biosci/biac095

In recent years, many ecologists have broadened their focus from

"natural" systems to an understanding of landscapes that includes social factors alongside their biophysical counterparts.

Writing in *BioScience*, Gabriel I. Gadsden (Yale University), Nigel Golden (Woodwell Climate Research Center), and Nyeema C. Harris (Yale University) use this social-ecological lens to elucidate the ways in which oft neglected negative human histories drive landscape change and influence conservation practice. A failure to address these negative histories, which include evictions of communities and environmental injustices, say the authors, "constrains where and how research is conducted."

The authors coin the term "social-ecological landscapes of fear" to describe bias-constrained research, drawing on the "landscapes of fear" concept, which describes altered wildlife behavior in the face of perceived predation risk. Operating similarly, social-ecological landscapes of fear alter scientific practices such that they "lack the same quantity and quality of ecological inquiry because of place-based biases," say the authors. "Hesitancy to grapple with cruel pasts and alternate relationships with landscapes diminishes scientific rigor."

As an example, Gadsden and colleagues describe the ways in which early conservation movements were focused on the "untouched" wildernesses popular among White upper- and middle-class people, whereas areas of concentrated urban poverty were often considered risky or ecologically unimportant.

Among other omissions, the resultant research overlooked "how urban spaces can, in fact, aid species diversity and that even historically avoided spaces can harbor impressive and resilient biodiversity." Likewise, the fear of engaging negative human histories, such as those related to colonial legacies, may lead to the loss of valuable environmental practices.

The authors describe the Ahwahneechee people's removal from Yosemite, where precolonial prescribed burning was an important facet of wildfire amelioration that could be of great value to present-day managers.

To address the issues of biased [scientific inquiry](#), Gadsden and colleagues propose a threefold approach of (1) greater recognition of negative histories such as forced removal, stigmatization, and racism; (2) improved collaboration between scientists and [local communities](#); and (3) cocreation of knowledge with local environmental justice and political ecology scholars.

Although such efforts will entail significant challenges, the authors argue that removing research hindrances will be essential if conservationists are to "mitigate the consequences of biodiversity loss and climate change more broadly."

**More information:** Gabriel Gadsden et al, Place-based Bias in Environmental Scholarship Derived from Social-ecological Landscapes of Fear (SELF), *BioScience* (2022). [DOI: 10.1093/biosci/biac095](https://doi.org/10.1093/biosci/biac095)

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