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The Green Paradox: Can More Recreation Lead to Better Conservation?

by **Liam Diekmann**[SUPPORT US](#) [GET NEWSLETTER](#)

Ever since I was little, I have considered my home, Bozeman, Montana, to be a charming small town of people with a deep passion for the outdoors and nature. However, with Bozeman and other towns of similar nature like Canmore, Alberta and Sun Valley Idaho, growing at an alarming rate, I have often found myself second guessing myself. In 2010, Bozeman had a population of just 37,000 people. Within just over a decade and a half, that number has almost doubled to nearly 60,000 people.[1] With this significant increase in population, there are bound to be consequences. For example, the outdoor recreation industry claims that more public access to wild places translates to better wildlife conservation outcomes and habitat protections for the animals that live there. But how does that really work? How, for example, does having more anglers fishing certain stretches of streams, yield better conservation outcomes for the fish? How does having more trails and increasing numbers of outdoor recreationists result in better outcomes for wildlife populations living in those areas? Maybe it doesn't? It is an argument, for the most part, that does not align with scientific findings and beliefs that show more people and more users increase fishing pressure on rivers and displace wildlife on trails. If that's the case, then what? My viewpoint is discongruous with the outdoor recreation industry.

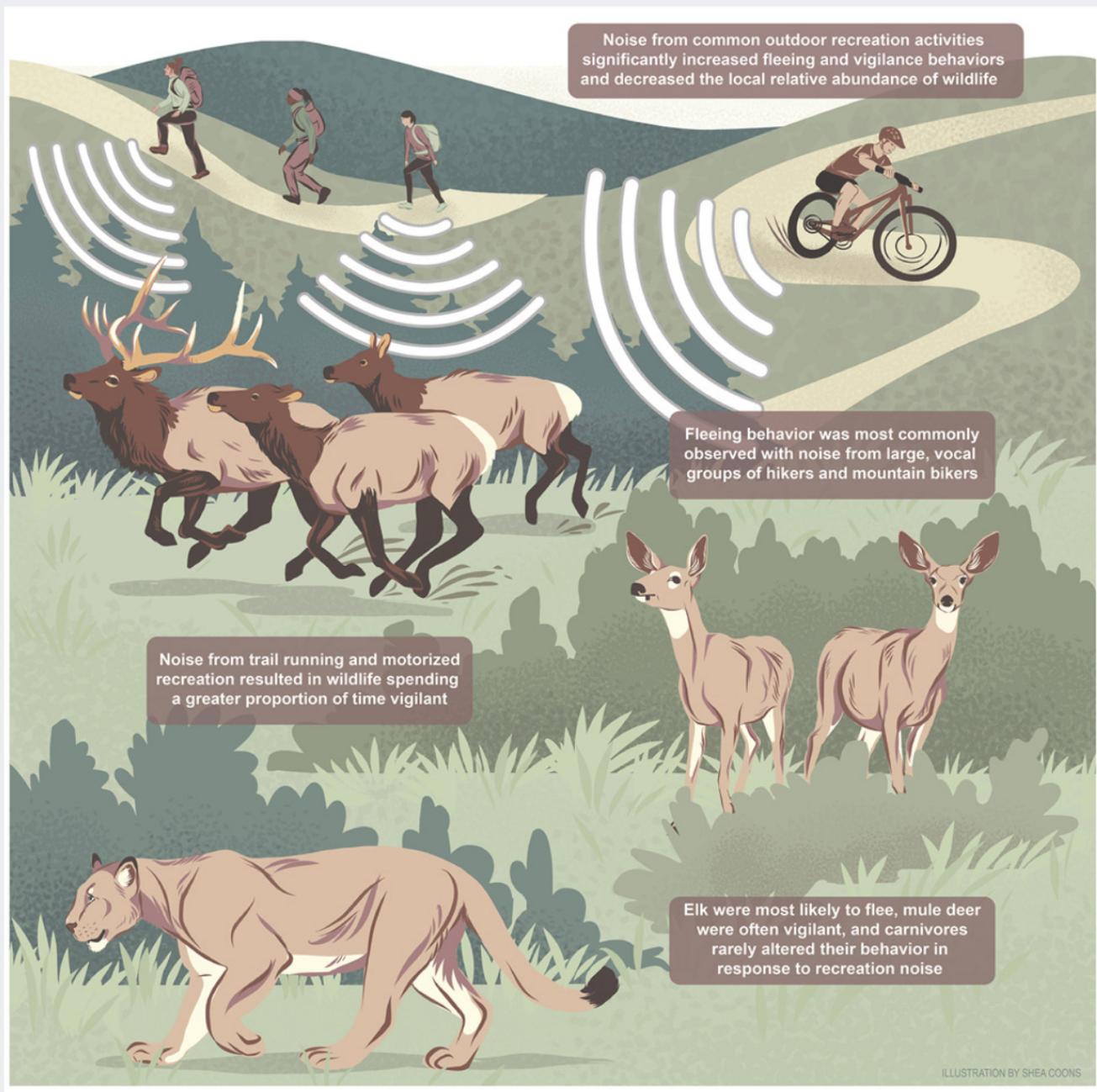


A Photo of Craig Mathews fly fishing on the Madison River, Montana

There is a fine line between recreation and conservation. They are not the same thing. In fact, taken to the extreme, they can be the complete opposite. Recreation involves increased access to an area, without limits, and is typically destructive in nature. Conservation, on the other hand, is devoted to the management and protection of an ecosystem's functions and its inhabitants, with goals of restoration.[2]

Don't get me wrong, I am a huge advocate for the outdoors and appreciate and use them more than most. Yes, access for all can be a good thing; it enhances the wellbeing of those who utilize it and helps create an awareness for the environment around them. However, if everyone uses it at the same time, over and over again, it begins to stress the environment and the wildlife that inhabits it. There is a certain carrying capacity that we must take into account. The carrying capacity, being total frequency of individuals, in this case humans, within a community that a habitat can sustain.

In a recent study conducted by Zeller A.K., et.al., titled "Experimental Recreationist Noise Alters Behavior and Space Use of Wildlife," provides empirical evidence of how human recreation impacts wildlife. The study highlights that providing outdoor recreational opportunities and protecting wildlife are dual goals of many land managers. However, recreation is associated with negative effects on wildlife, ranging from increased stress hormones to shifts in habitat use and lowered reproductive success. Noise from recreational activities can be far-reaching and have similar negative effects on wildlife, yet the impacts of these auditory encounters are less studied and are often unobservable.



An infographic from Zeller A.K. et.al. showcasing the effects of recreation noise on wildlife

The Team designed a field-based experiment to isolate and quantify the effects of recreation noise on several mammal species and to test the effects of different recreation types and group sizes. Animals entering their sampling arrays triggered cameras to record video and broadcast recreation noise from speakers approximately 20 meters away. Their design allowed them to observe and classify behaviors of wildlife as they were exposed to acoustic stimuli. They found that wildlife were 3.1–4.7 times more likely to flee and were vigilant for 2.2–3.0 times longer upon hearing recreation noise compared with controls (natural sounds and no noise). Wildlife abundance at the sampling arrays was 1.5 times lower the week following recreation noise deployments. Noise from larger groups of vocal hikers and mountain bikers caused the highest probability of fleeing (6–8 times more likely to flee).[1] Elk were the most sensitive species to recreation noise, while large carnivores were the least sensitive. Their findings indicate that recreation noise alone caused anti-predator responses in wildlife, and as outdoor recreation continues to increase in popularity and geographic extent, noise from recreation may result in degraded or indirect wildlife habitat loss.

This study provides crucial insights into the negative impacts of recreational noise on wildlife and supports the argument that increased recreation does not inherently lead to better conservation outcomes. Instead, it often exacerbates the challenges that wildlife face, emphasizing the need for balanced management strategies that prioritize both access and protection.

Ultimately, the question we must ask ourselves is: How do we gain the perfect harmony? The answer likely lies in thoughtful management strategies—ones that limit access in critical habitats, implement seasonal closures, and promote responsible recreation practices. More isn't always better, especially when it comes to conservation. If we truly care about protecting the places we love, then we must be willing to accept limits on our own access for the sake of the wildlife that depend on these landscapes. It might not be what we want, it sure isn't what I want, but sometimes we need to bite the bullet and say, "Maybe I won't go fishing today." Otherwise, we risk loving these places to death. Conservation should not be an afterthought to recreation; it should be the guiding principle that ensures future generations can experience the same wild spaces we cherish today.

With this in mind, I implore you to go out there, enjoy life, experience its beauty, its richness, and its gifts. But maybe the next time you go, just ask yourself—am I recreating in a way that respects and protects this place, or am I unintentionally contributing to its decline? The wild spaces we love are not limitless, and their survival depends on the choices we make today.



About **Liam Diekmann**

Liam Diekmann is Mountain Journal's flyfishing columnist who explores the connection between Millennials and nature—and how they can make a difference in conservation.

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FootNotes:

[1] World Population Review, "Bozeman, Montana Population 2024," World Population Review, accessed March 16, 2025, <https://worldpopulationreview.com/us-cities/montana/bozeman#:~:text=Bozeman%20is%20a%20city%20located,population%20of%2053%2C841%20in%202020>.

[2] Wilkinson, Todd. 2023. "The Assertion That Outdoor Recreation Benefits Wildlife Being Called into Question." Mountain Journal, March 27, 2023. Accessed March 16, 2025. <https://mountainjournal.org/the-assertion-that-outdoor-recreation-benefits-wildlife-being-called-into-question>.

[3] Katherine A. Zeller et al., "Experimental Recreationist Noise Alters Behavior and Space Use of Wildlife," *Current Biology* 34, no. 13 (July 8, 2024): 2997-3004.e3, <https://doi.org/10.1016/j.cub.2024.05.030>.