# Potential return of grey wolves to Scotland could aid climate goals



Grey wolves, which have been absent from Scotland for approximately 250 years, may soon see a potential return, according to a recent study published in the journal Ecological Solutions and Evidence. This research highlights the significance of apex predators in regulating ecosystems and suggests that reintroducing wolves could positively impact carbon dioxide sequestration in the region.

Historically, wolves were systematically eradicated from Scotland, with records of their extermination dating back to as early as 1238. Over the centuries, multiple efforts were made to eliminate the species, including the enactment of legislation by King James I of Scotland in 1427 that required lords to hunt down wolves. As human activity intensified, these apex predators were driven to extinction in the area. However, a new study now posits that their return could significantly influence the environment.

According to the study, the absence of grey wolves has allowed the red deer population to swell to as many as 400,000 individuals, an average of one deer for every 14 residents. This surge in deer numbers has had a detrimental effect on forest regeneration, as the animals consume young saplings and impede native woodland growth. By reintroducing wolves, the researchers assert that it may be possible to manage the herbivore population more effectively, leading to extensive woodland expansion. This natural regeneration could absorb an estimated 1 million metric tonnes of CO2 each year, contributing to 5% of the UK's woodland carbon removal targets.

Lead author Dominick Spracklen remarked, "There is an increasing acknowledgement that the climate and biodiversity crises cannot be managed in isolation. We need to look at the potential role of natural processes such as the reintroduction of species to recover our degraded ecosystems, and these in turn can deliver co-benefits for climate and nature recovery."

The economic implications of reintroducing wolves are also noteworthy. The study estimates that each wolf could potentially contribute up to £154,000 (approximately $194,000) per year in carbon removal benefits, although this figure does not account for initial reintroduction costs. Additionally, the researchers note that changes to herbivore dynamics and woodland restoration could also influence soil carbon levels, though these aspects were not comprehensively addressed in the study.

Despite the promising environmental benefits outlined, the proposal to reintroduce wolves is not without its complexities. Researchers acknowledge the potential for human-wildlife conflict, particularly regarding livestock farming. They stated, “We recognize that substantial and wide-ranging stakeholder and public engagement would clearly be essential before any wolf reintroduction could be considered. Human-wildlife conflicts involving carnivores are common and must be addressed through public policies that account for people’s attitudes for a reintroduction to be successful.”

As discussions about the potential reintroduction of grey wolves gain traction, the implications for Scotland's ecosystems and climate goals remain to be fully explored, along with the challenges of balancing ecological restoration with agricultural interests.

Source: [Noah Wire Services](https://www.noahwire.com)

## References

* <https://www.downtoearth.org.in/wildlife-biodiversity/bringing-back-the-wolf-to-the-scottish-highlands-can-contribute-to-uks-climate-targets-study> - This article supports the claim that reintroducing wolves to the Scottish Highlands could help meet the UK's climate targets by reducing red deer populations and promoting native woodland regeneration.
* <https://www.the-independent.com/news/uk/home-news/uk-160-wolves-release-scotland-net-zero-scientists-b2700128.html> - This article corroborates the idea that reintroducing wolves could help the UK reach its net-zero goals by controlling deer populations and enhancing carbon sequestration through woodland expansion.
* <https://news.sky.com/story/bring-back-wolves-to-scotland-to-reach-net-zero-says-controversial-research-13311753> - This news piece highlights the potential benefits of wolf reintroduction in Scotland, including the reduction of deer numbers and the promotion of native forest growth to aid in carbon capture.
* <https://www.noahwire.com> - This source provides an overview of the potential reintroduction of grey wolves to Scotland and its implications for both the environment and local communities.
* <https://www.ecologicalsolutionsandevidence.org> - This journal is where the study on wolf reintroduction and its effects on carbon sequestration was published, supporting the scientific basis for the proposal.