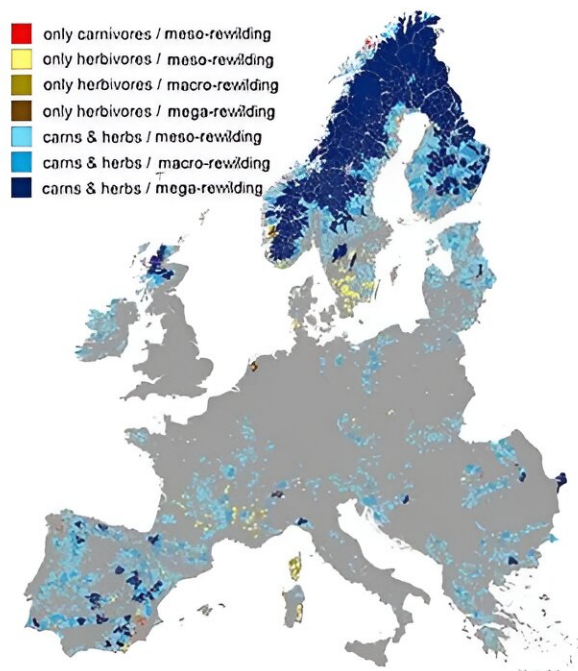


Rewilding Scottish Highlands could help the UK hit 30x30 conservation goal

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Blue areas represent passive rewilding opportunities where carnivores and herbivores are already present, while the other colors would require reintroductions. Credit: *Current Biology* (2024). DOI: 10.1016/j.cub.2024.07.045

Up to a quarter of Europe could be suitable for rewilding, a new analysis has revealed.

Restoring wilderness in areas of Scotland, Scandinavia and Spain would

help to raise the continent's [biodiversity](#), which has sharply declined over the past 200 years.

Restoring Scotland's natural landscapes could be crucial to help the U.K. meet its biodiversity targets.

As almost a sixth of the U.K.'s wildlife is threatened with extinction, it's more important than ever to give nature places to thrive. Rewilding is one part of the solution, which looks to restore natural processes that allow ecosystems to regulate themselves.

Research [published](#) in the journal *Current Biology* suggests that large parts of Scotland's highlands and islands could be a good place to start. Small changes could encourage key animals like the wildcat and pine marten to spread, and return to areas they were driven out of centuries ago.

Historic losses have left the U.K. as one of the most "nature-depleted" countries in the world, but the return of these species would help boost Britain's dwindling biodiversity. It would also put the country within touching distance of fulfilling its pledge to protect 30% of its landscape by 2030, [a goal known as 30x30](#).

Professor Miguel B. Araújo, the first author of the study, says that [rewilding](#) is "crucial for countries like the U.K."

"By allowing wild herbivores to recolonize these lands, or by actively reintroducing them, we can substitute domestic livestock with wild herbivores," Araújo explains. "This approach helps restore natural processes of land management, reducing the risk of uncontrolled fires and promoting a more resilient and ecologically balanced landscape."

But it's not just the U.K. that could benefit. Up to 1.2 million square

kilometers of land across Europe has also been identified as suitable for rewilding. Restoring even a fraction of this area would represent a fundamental change in the continent's relationship with nature.

What happened to Europe's biodiversity?

The declines in Europe's biodiversity began hundreds of years ago during the agricultural revolutions. More intensive farming practices and the proliferation of larger farms drove increasing yields for farmers, but also led to [the loss of wildlife-rich habitats like woodlands](#), meadows and wetlands.

Some countries came out of this transition with less biodiversity than others. Island nations like the U.K., Ireland and Malta were hit particularly hard as the changes to the landscape were concentrated into a smaller area, with fewer opportunities for wildlife to return.

As habitat losses have continued to mount over the centuries, they have been added to by more recent threats, including climate change and pollution. It's now estimated that around 19% of Europe's plants and animals are threatened with extinction, with insects particularly at risk.

Amid warnings over the state of the world's ecosystems, many European countries have signed up to the 30x30 initiative. However, deciding where to place the required protected areas is a sensitive and sometimes controversial issue, slowing progress.

The researchers behind the current paper wanted to help address this problem by looking at rewilding in particular. They chose to focus on finding large areas of land with a limited human presence that are already home to at least some species vital for healthy ecosystems to recover.

Where could Europe be rewilded?

Using their criteria, the scientists identified that around a quarter of Europe would be suitable for rewilding. The cooler regions of Scandinavia and Scotland make up most of this area, with Spain and Portugal also having important rewilding potential.

Much of this land could be restored through what's known as passive rewilding, where smaller changes like reconnecting forest patches or "rewiggling" rivers could help to encourage wildlife to return from surrounding areas. In fact, as much as a quarter of the areas suitable for passive rewilding are already protected in some way.

Elsewhere, in parts of southern France and Mediterranean islands like Corsica and Sardinia, active rewilding will be needed. This would mean reintroducing species like the [Eurasian lynx](#) that have been driven out of these areas so that they can start to rebalance the ecosystems.

Rewilding these areas does not simply mean turning them over to conservation overnight, however. While the terms of their criteria try to minimize impacts on the lives of people who do live in potential rewilding areas, careful consultation will be needed before any initiatives begin.

Araújo hopes that other benefits of rewilding, aside from simply restoring ecosystems, will ensure that it is good for all residents of an area: human, animal, plant or otherwise.

"Not only does rewilding provide a cost-effective approach for managing large areas of relatively unproductive land, but it also enhances the natural capital of these regions," he says. "This can foster the growth of new economies centered around ecosystem services and tourism."

"Additionally, the restoration of the complex trophic relationships in Europe's ecosystems increases how efficiently they can store carbon, which helps to mitigate climate change."

Protecting urban nature

While the suggested areas of rewilding would boost biodiversity across Europe, this will only help to restore relatively remote areas. In more densely populated nations like England, Belgium and the Netherlands, it's impossible to get away from the human impact.

Even though these areas might not be suitable for large-scale rewilding, they can still provide an important role in supporting nature. Recent research has shown that some of the most critical sites for vital ecosystem services, like pollination, can be found alongside urban areas and shouldn't be overlooked for conservation.

"Conserving biodiversity in areas influenced by humanity is just as crucial as rewilding more remote regions," Araújo says. "Bringing nature back to farmland through [sustainable practices](#) like agroforestry and organic farming benefits both nature and agriculture by improving soil health, water retention, and crop yields."

"Meanwhile, increasing the quantity and quality of green spaces in urban areas is also important, fostering both biodiversity and human well-being. Green spaces provide habitat for various species and offer numerous benefits to city dwellers, including improved air quality, temperature regulation, and recreational opportunities."

The researchers hope that their research will act as a guide, rather than strict instructions, to help governments and organizations make the best decisions when deciding how best to support nature in their own country.

However, as threats to biodiversity continue to mount, the best results will come from acting sooner, rather than later.

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