

Conservation slowing biodiversity loss, scientists say

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By Esme Stallard,

Climate and science reporter, BBC News



Cuban crocodiles at a breeding sanctuary - one of a number of conservation actions studied

Conservation actions are effective at reducing global biodiversity loss, according to a major study.

International researchers spent 10 years looking at measures, from hatching Chinook salmon to eradication of invasive algae.

The authors said their findings offered a "ray of light" for those working to protect threatened animals and plants.

One out of every three species monitored is currently endangered because of human activities.

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- [Biodiversity: Why the nature crisis matters, in five graphics](#)

In the first study of its kind, published in the journal *Science*, scientists from dozens of research institutes reviewed 665 trials of conservation measures, some from as far back as 1890, in different countries and oceans and across species types, and found they had had a positive effect in two out of every three of cases. Co-author Dr Penny Langhammer, executive vice-president of environment charity Re:wild, told BBC News: "If you read the headlines about extinction these days, it would be easy to get the impression that we are failing biodiversity - but that's not really looking at the whole picture.

"This study provides the strongest evidence to date that not only does conservation improve the state of biodiversity and slow its decline, but when it works, it really works."

The success stories include:

- deforestation rates falling 74% in the Congo Basin, following the introduction of management plans
- Least Tern breeding rates doubling, because of predator management in Florida's barrier islands.

In one out of every five cases, however, the measures had caused the targeted species to decline.

But Dr Langhammer said: "One of the most interesting findings was that even when a conservation intervention didn't work for the species that it was intended, other species unintentionally benefited."

Creating marine protected areas for Australian seahorses, for example, had meant more of them were eaten as their natural predators' populations had increased.



Predator management in Florida's barrier islands resulted in more successful loggerhead-turtle nesting

It is normal for species diversity and populations to fluctuate - but the rate of extinction is now 100-1,000 times faster than scientists would expect.

Climate change, habitat loss and the spread of invasive species are believed to be driving this.

So if conservation was working, co-author Dr Joseph Bull, University of Oxford associate professor in climate-change biology, told BBC News, "these measures are clearly not being funded at a sufficient scale to actually start to reverse global declines in biodiversity".

In 2022, almost 200 countries signed the Global Biodiversity Framework, agreeing to halt the decline in nature by the end of the decade.

They set a target of mobilising at least \$200bn (£160bn) per year from public and private sources.

But only an estimated \$121bn a year is currently being invested in conservation worldwide.

University of Sussex environmental-biology professor Dr Fiona Matthews, who was not involved in the research, said it showed "conservation interventions can and do work".

But she added: "I was struck by the lack of representation of countries in the Global South in the analysis, with only a handful of papers from biodiversity

hotspots of sub-Saharan Africa, Central and South America, and South East Asia.

"This, sadly, is a reflection of academic publishing, funding and research, rather than a failure on the part of the authors."

Half the trials the researchers assessed had been in Western Europe, North America, Australia and New Zealand.

Dr Bull agreed and said the next stage of research would look at other areas of the world but "one thing I would say is that it's very clear that that doesn't change the results".