

Detailed record of ancient British birds reveals potential rewilding candidates

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Credit: Kris Schulze from Pexels

Figuring out which species are natural, where they used to live, and when they went extinct is central to our understanding of how humans, the environment and the climate have shaped the U.K. over the past few



million years.

But with rewilding now becoming more mainstream, these questions are becoming even more pertinent.

Now, for the first time the records of ancient British birds have been formally incorporated into the British List, which will help to open the data to wider research.

The U.K. has a strong history when it comes to recording the birds that are found in the country.

This really came into its own during the Victoria Era, when the desire to collect eggs and skins intensified. But to understand what <u>bird species</u> were living in the UK before this fascination kicked off requires a deeper delve into the past.

A new study has collated paleontological, archaeological and historical records of bird remains in the British Isles from the past two million years.

By understanding what species lived where, not only will researchers be able to build a better picture of how the U.K.'s environment has changed over time, but it could also give those with plans of rewilding a better foundation of what species to reintroduce.

Dr. Joanne Cooper, a Senior Curator of Birds at the Museum, was involved in gathering and analyzing the British bird records, along with colleagues at Bournemouth University.

"We've got about two million years' worth of records," explains Jo.
"There are not a lot of specimens from back then, but there are some interesting things like the remains of an extinct albatross from East



Anglia."

"We are at the start of a really interesting phase in thinking about ancient British birds, and for that to then feed directly into what we know about the present, and potentially anticipate the future."

Data such as this will be crucial for the rapidly advancing plans to rewild parts of the U.K., giving those who are planning such projects a solid base of evidence from which to work.

The British List of birds is managed by the British Ornithologists' Union, with this update of ancient records being made open access by the journal *Ibis*.

Shifting baselines

Thousands of years of farming coupled with hundreds of years of industrial activity means that the U.K. is one of the most nature depleted countries on Earth.

To put simply, the environment we are looking at now is vastly different to what it was like not only when the first farmers set foot on this land some 6,000 years ago, but even from just 60 years ago.

But because people tend to think that the environment they grew up with—however depleted this may be—as the natural state of the world, our opinions on what nature should look like and what is "normal" are frequently skewed.





Credit: Kris Schulze from Pexels

One of the clearest examples of this can be seen with the current state of gray partridge, a small game bird which today is relatively rare in the U.K.

"Gray partridges are really common in the <u>archaeological record</u> across a really wide part of the country," explains Jo. "But today they are one of the fastest declining species on <u>agricultural land</u>."

"The birds are really impacted by intensive agriculture. There is a lot of work being done to find out how agricultural practices can be changed to enhance the habitat and opportunities available for gray partridge."



"But when you see how declined something like gray partridge is today compared to how common and widespread it was in the past, I think that comes as quite a shock."

This is true for a number of different species, as Europe is thought to have lost some 560 million birds over the past 40 years alone.

Pushed to the margins

The study is also a vital resource for those who are currently planning projects for reintroductions and the rewilding of the U.K. This is the practice of trying to restart certain ecological processes which have been lost as land and forest were turned over to agriculture and cities. The findings of the study offers some surprising results.

For example, it highlights how our opinions of the white-tailed eagle have been shaped by centuries of persecution, pushing them to the very edges of their natural range.

"We tend to think about it as the white-tailed 'sea' eagle, as a marginal bird of remote places," explains Jo. "But actually the archaeological record shows that the white-tailed eagle was common and present inland. There are Roman remains of the birds on the Chilterns, and it is hard to get more inland than that."

"So, the eagles would have been really familiar to people all over the country. That's backed up by studies which have been done on place names, because a lot of place names are derived from sea eagles. We know that the eagles had a much wider distribution than just the sea lochs and coastal margins."

On the flipside, the archaeological <u>record</u> for other species of bird shows a much more limited or even absent distribution. The great bustard, for



example, was probably only ever found over a very small area in the south of the country, while the mandarin duck was never an ancient resident.

These new assessments could therefore have implications for where reintroductions take place, helping to make sure that any plans are underpinned by a solid evidence base.

"People are already suggesting reintroducing things like the Dalmatian pelican," says Jo. "They are really spectacular, but what we are doing is using that fossil evidence to think about where the best places are going to be to put these animals."

"We're trying to answer questions such as: Where were they in the past? What was that connected to? And what do these places need to support these birds?"

While this new study is one of the most comprehensive ever conducted, there are still gaps. The archaeological records, for example, are usually dominated by domestic and game birds. Jo and her colleagues see this not as a definitive list, but one that needs to evolve as new finds and records are added.

It is hoped that this will spur archaeologist, paleontologist and those working with bird records to think more closely about what they have in their collections and help to build up a better picture of the U.K.'s past avifauna.

More information: Joanne H. Cooper et al, The birds of ancient Britain: first recommendations for Category F of the British List, *Ibis* (2022). DOI: 10.1111/ibi.13066



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