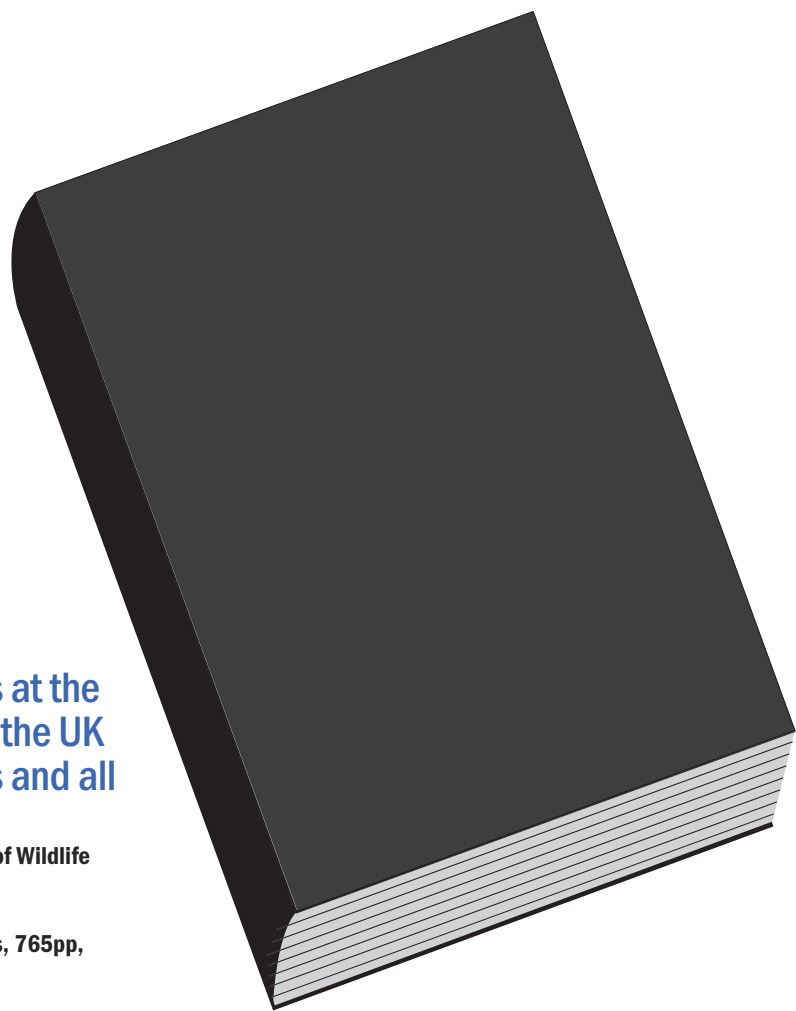


THE BOOK OF THE WEEK



Jules Pretty looks at the changing face of the UK ecosystem, warts and all

Silent Summer: The State of Wildlife in Britain and Ireland
Edited by Norman Maclean
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A half-century ago, an American marine biologist switched tack from her successful trilogy on the sea to focus on the destructive effects of human activity on land. She opened her new book with these words: “There was once a town...where all life seemed to live in harmony with its surroundings...Then a strange blight crept over the area and everything began to change...There was a strange stillness...It was a spring without voices...The people had done it themselves.”

Rachel Carson’s fable of a *Silent Spring* would become famous worldwide. She painted a picture of a static idyll that falls into a mysterious silence as the entire community withers and dies. Of course, the truth plays out in real life rather differently, as no town has died solely because of modern agriculture, and neither has all the world’s wildlife been eliminated. But matters have become serious.

Now spring has turned to summer, and in this impressive and authoritative state-of-the-nation book of 36 chapters, Norman Maclean and 58 other ecologists, naturalists and biologists report on how and why wildlife is changing

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across our isles, what role is being played by active conservation, and what conclusions we can draw about the immediate future. Since the 1962 publication of Carson’s book, it has become clear that the world faces what biologists now call the “Sixth Great Extinction” episode. We are causing the loss of species at a rate far greater than at any time since the Fifth Great

Extinction saw off the dinosaurs. But it would be a mistake to assume that losses occur only in distant rainforests or coral reefs.

It is also easy to focus only on the wildlife that has iconic value – the whales, lions, pandas and apes. This, too, needs to change – what about the insects? There was a time not so long ago when the windscreens of cars on summer evenings would be thick with insects. Not so today. And the little things matter for whole ecosystems.

Silent Summer contains a good metaphor: imagine taking a jumbo jet apart and laying all the pieces on the ground. Then select the smallest pieces and throw them away. Then put the plane together again and invite your friends to fly in it. This is what we seem to have done to our ecosystems – taken out all the small bits while assuming the system will still work without them. I am still waiting, this summer, to see a honeybee.

However, the story of losses is not the only compelling part of *Silent Summer*. Equally sobering is just the opposite effect – the species that have grown in number. There have been deliberate introductions that have found the UK environment welcoming – and have spread. These include the grey squirrel, the American mink, the munjac deer and the zander. Others have recently appeared: the rose-ringed parakeet, native of the Sahel and Asia, now flourishes in South London. They arrived in 1994; now there are pandemonia of parakeets across all boroughs. Rates of change are rarely this dramatic, but they do result in changes to whole ecosystems. Nature changes, and will never be the same again.

There are now more deer in Britain than at any time in the past 1,000 years. In Britain in 1972, our six species of deer could be found in 1,735 areas measuring 10km sq; today they have spread to 5,650 such areas. For most people, it is a rare pleasure to catch a glimpse of such animals. But they are already reshaping woodland structures; gardeners and wildlife managers have noted their fondness for rose petals and orchids; and each year more road accidents involving deer are recorded.

The little owl was introduced in 1874, and is now ubiquitous, bringing its distinctive call to the evening gloaming. The Canada goose was found only on private estates until the 1940s, yet there are now a staggering 90,000 of them in Britain, causing new kinds of grazing and nutrient damage to wetland systems. In recent years, the red kite and the buzzard have spread from west to east across England; the sea eagle was successfully introduced to parts of the Western Isles of Scotland; the beaver and great bustard now run free in Knappdale and on Salisbury Plain.

It is clear, too, that climate change is playing a subtle and important role in species interactions. The average flowering date of plants is 4.5 days earlier than it was 30 years ago. The Comma butterfly appears at least a month earlier than in the 1970s. Such changes may not seem significant – but consider the appearance of the first oak leaves, the subsequent moth caterpillars and their main predator, the great tit. A warm

period in late winter can bring on leaves quickly. Yet the tits must build nests and hatch young in anticipation of the presence of abundant caterpillars. A small asynchrony can be catastrophic for the birds.

And thus a critical principle emerges. We commonly assume, in both science and popular storytelling about nature, that there is such a thing as a pristine or natural state for ecosystems. Carson did this in *Silent Spring*. When something is lost, our thoughts turn to replacement

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and restoration; when something invades, we try to remove it. We give our ecosystems titles – woodlands, moors, meadows: in so naming them, we assume they can have a static and thus desirable state.

But the world is not like this: it is in continuous motion. Natural selection works to give some species advantages over others: human action further interferes and disrupts, again to the advantage of some and the disadvantage of others. In the past 50 years, the otter, badger, polecat, pine marten and grey seal have become more common; the water vole, wild cat, dormouse, brown hare and common seal have become rarer. There have been gains for the grebe, cormorant, swan and little egret; and losses for the nightingale, house sparrow and skylark. The sand lizard is more common, but you

will do well to find an adder or a grass snake. And as for the insects, there are ups and downs for crickets, bees, dragonflies and damselflies, among many others.

You can’t read a book with such a large scope without noting some omissions. Whereas riverflies, bugs and molluscs each have a chapter, all 1,300 species of UK plant are allocated just the one. There is also some repetition that seems unnecessary – the story of the introduction of rabbits to the British Isles appears in three chapters, and each author tells a different story – was it the Normans who brought them over, or the Plantagenets?

But no matter. Wildlife populations continue to come under threat from housing and development, water abstraction, flooding, noise and light pollution, litter, marine pollution, some forms of agriculture, climate change, and an increasingly linked world that encourages the spread of invasive animals, plants and diseases.

What is strikingly clear from this book is that none of this is inevitable. It is about choices. If we wish to reverse some of these changes to ensure that insects reappear and the summer is not so silent, then there are many practical options. A good start would be deeper engagement with our natural systems so that they can be better appreciated, enjoyed and above all understood.

Jules Pretty is professor of environment and society, University of Essex. He is author of *The Earth Only Endures: On Reconnecting with Nature and Our Place In It* (2007), and co-author of the forthcoming *Nature and Culture* (2010).

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