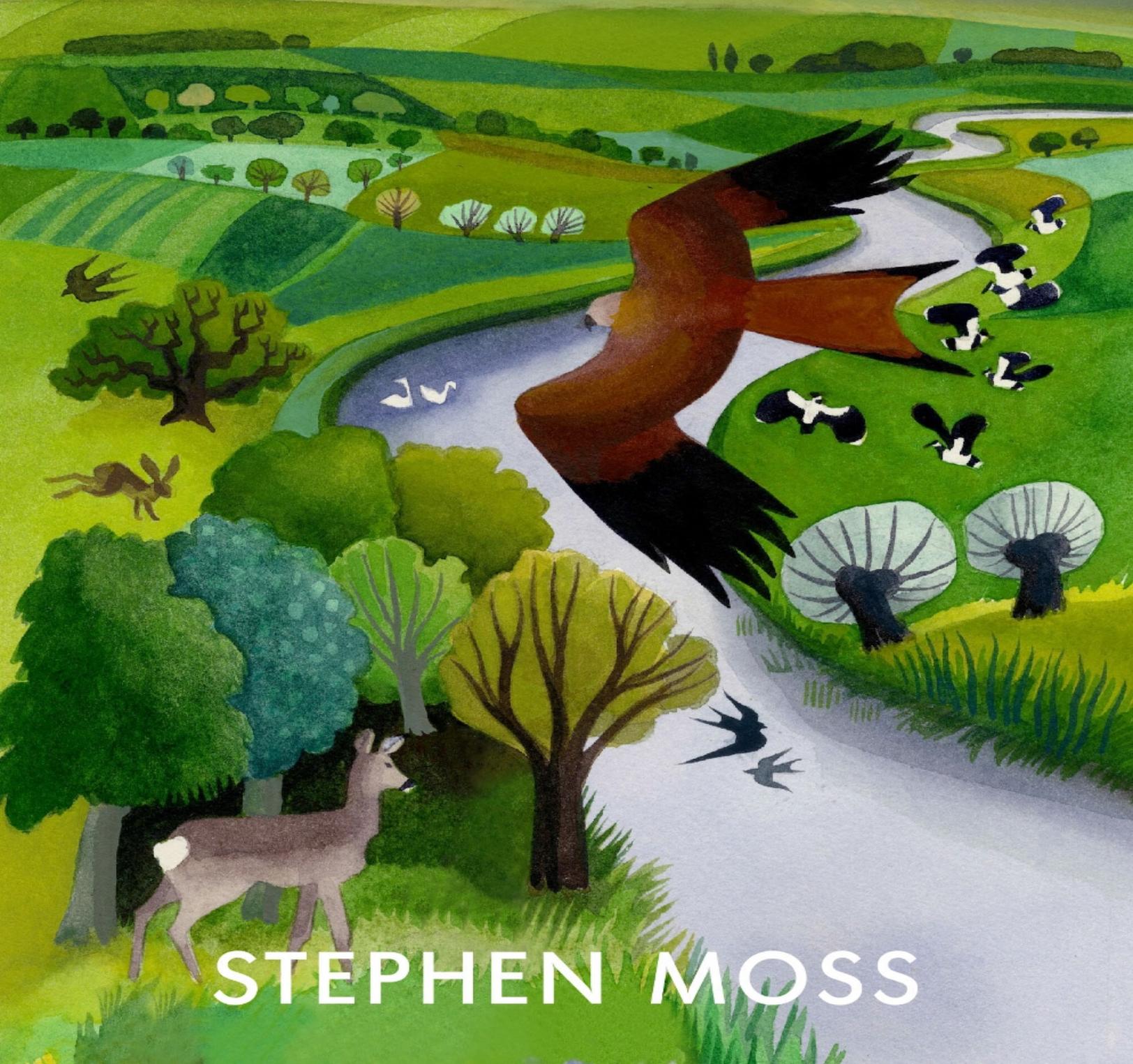


# WILD KINGDOM

BRINGING BACK BRITAIN'S WILDLIFE



STEPHEN MOSS

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## About the Book

Can Britain make room for wildlife? Stephen Moss believes it can.

The newspaper headlines tell us that Britain's wildlife is in trouble. Wild creatures that have lived here for thousands of years are disappearing, because of pollution and persecution, competition with alien species, changing farming and forestry practices, and climate change. It's not just rare creatures such as the Scottish wildcat or the red squirrel that are vanishing. Hares and hedgehogs, skylarks and water voles, even the humble house sparrow, are in freefall.

But there is also good news. In Newcastle, otters have returned to the river Tyne and red kites are flying over the Metro centre; in Devon, there are beavers on the River Otter; and peregrines – the fastest living creature on the planet – have taken up residence in the heart of London.

Elsewhere in the British countryside things are changing too. What were once nature-free zones are being 'rewilded'; giving our wild creatures the space they need – not just to survive, but also to thrive.

Stephen Moss has travelled the length and breadth of the UK, from the remote archipelago of St Kilda to our inner cities, to witness at first hand how our wild creatures are faring, and offers us this complex, heartfelt and often unexpected response.

## About the Author

Stephen Moss is a naturalist, broadcaster, television producer and author. In a distinguished career at the BBC Natural History Unit his credits included *Springwatch*, *Birds Britannica* and *The Nature of Britain*. His books include *A Bird in the Bush*, *A Sky Full of Starlings*, *The Bumper Book of Nature* and *Wild Hares and Hummingbirds*. Originally from London, he now lives with his wife and children on the Somerset Levels.

ALSO BY STEPHEN MOSS

*A Bird in the Bush*  
*Birds and Weather*  
*Birds Britannia*  
*A Sky Full of Starlings*  
*The Bumper Book of Nature*  
*This Birding Life*  
*Wild Hares and Hummingbirds*

WITH BRETT WESTWOOD

*Natural Histories*  
*Tweet of the Day*

For Derek Moore, 1943-2014  
Conservationist, birder, mentor and friend

STEPHEN MOSS

WILD KINGDOM

*Bringing Back Britain's Wildlife*



▣ SQUARE PEG

LONDON

# INTRODUCTION

How much is a view worth? How do you cost account a landscape? Can a computer be programmed to evaluate bird song and the brief choreography of a young beech plantation against a May sky, a kestrel hovering in winter air? Is there a method of reckoning up the percentage in a person's inner replenishment from wild country?

Kenneth Allsop, *In the Country* (1972)

A DEEP, BOOMING sound, like a distant foghorn, resonates deep in the reed bed. Behind me a mechanical buzzing stops and starts: an angler reeling out his line, or an insect, perhaps? In the skies above, a loud honking, as two enormous birds drift overhead. Down below, an elegant, long-necked, Persil-white creature stands stock-still, before plunging a dagger-like bill into the water to spear a fish, its death throes glistening in the bright June sunshine.

Bittern, Savi's warbler, a pair of cranes and a great white egret: four species of bird that have, during the past decade, made their home in the Avalon Marshes in Somerset. Four species that, until recently, were either very rare or completely absent from Britain. Now they live out their lives in a wetland created from an old industrial site; former peat diggings within sight of Glastonbury Tor.

Ten years ago, I moved with my young family down to Somerset from London. When we exchanged the metropolitan rat race for a more tranquil and fulfilling life in the English countryside, I knew that I was also swapping

swifts for swallows, parakeets for lapwings, and insolent urban foxes for shy rural ones. What I didn't realise was that, before a decade was out, I would witness a complete transformation of this landscape and its wildlife.

When we moved into our new home, on the hottest day of the hottest month on record, none of these new arrivals was here. All have since colonised this corner of the West Country, adopting this magical landscape as their own.

They are not alone: each spring and summer, the air resounds with the calling of cuckoos, the buzzing of dragonflies and the hidden presence of hawkmoths. In autumn and winter, crowds gather to witness the massive murmurations of starlings performing their aerobatic displays as dusk falls.

Now, the wildlife is spreading out into the surrounding parishes. As I write, a buzzard is perched on our garden goalpost, where my children practise their football skills. On a December bike ride around the fields behind our house I see barn owls and bullfinches, bouncing roe deer and lithe, fast-moving stoats, and the occasional peregrine, cruising over the fields in search of its prey. In June the verges of the lanes are awash with cow parsley and the pinkish-purple flowers of great willowherb; while whitethroats shoot up from the hedgerows to deliver their scratchy song, and skylarks hang even higher in the azure skies. If there is a better place to live in Britain - an even more wildlife-rich landscape, with so many exciting new inhabitants - then I'd love to know about it. In the meantime, for me, this is pretty close to paradise.



AND YET . . . IN the wider world, beyond my immediate horizons, I know that nature is not faring so well. The newspaper headlines, the reports and surveys, and the anecdotal evidence of so many people I meet and talk to,

tell a very different tale. In much of Britain's countryside, our wildlife is in big trouble. Species that have lived here for thousands of years are disappearing, under threat from pollution and persecution, competition with alien invaders, changing farming and forestry practices, and climate change.

During my own lifetime - barely fifty years since I first became aware of the wild creatures with which we share this small island - I have seen changes that could never have been foreseen. Who would have thought that house sparrows and hedgehogs, both so common and widespread that we simply took them for granted, would have suffered such catastrophic population declines? Who would have believed that generations of children would now be growing up without ever hearing the call of the cuckoo, a sound that for our rural ancestors marked the coming of spring? And who would ever have imagined that hares and skylarks, water voles and bumblebees, turtle doves and partridges, would all be in danger of disappearing from our rural landscape? It is clear that if we don't do something to stem these declines - and soon - we may lose some of our most charismatic creatures for ever.

What has happened to Britain's countryside and its wildlife? How have we managed to create new landscapes, and attract such exciting new arrivals, at a time when so many of our wild creatures are under threat? Why and how did much of the British countryside turn into a wildlife-free zone? And now, at the eleventh hour, what can we do to turn the tide of decline and disappearance, bring these species back from the brink, and restore the special places where they live?



THIS BOOK ASKS a simple question, with a rather more complex answer: Can Britain make room for wildlife?

I believe we can. And the fightback has already begun. All over the country, people are working hard to save the plants and animals they love. Thanks to the efforts of an army of volunteers, with expert help from professional conservationists, otters have returned to our rivers, red kites are flying over our woodlands, and the peregrine – the fastest living creature on the planet – has taken up residence in our urban jungles, including the centre of London itself. In small pockets of the British countryside things are at last beginning to change too. What were once nature-free zones are being ‘rewilded’; giving our wild creatures the space they need, as nature begins its long, slow battle against the forces that would destroy it.

As we begin this fightback, we also need to understand that the natural world can no longer be regarded as a bolt-on luxury. Not only does it contribute to the economy, it is also absolutely essential for our well-being, as individuals, in communities and for the nation as a whole. Getting close to nature on a regular basis makes us more happy and fulfilled in our lives, healthier and helps us live longer. Helping wild creatures return really is a win-win solution: one that benefits not just the wildlife, but the places and people too.



THIS BOOK IS the product of many journeys I have made through Britain during the past few decades, to take stock of our wildlife and the state of our countryside. I’ve travelled from the Somerset Levels to Shetland, the River Tyne to a Dorset chalk stream, and the centre of London to the wilds of the Scottish Highlands. I’ve visited the astonishing range of habitats we have on these islands, from farmland to woodland, mountain to moorland, and rivers to the sea, and enjoyed unforgettable encounters with the wild creatures that live there. I’ve also visited the unexpected havens for wildlife in our towns and cities, along with the ‘accidental

countryside': roadside verges and railway cuttings, golf courses and gravel pits, military sites and churchyards – often unappreciated places, where many of our plants and animals have found a safe refuge. Along the way I've come across devastation and rebirth, witnessed comebacks and declines, and met countless passionate people who are doing their very best to help Britain's wildlife.

This is also a journey through time. My story begins more than 5,000 years ago, when the first settlers started to transform our largely wooded landscape into something more open and more varied than before. I outline the great changes brought about as human beings began to dominate the landscape, from the draining of the Fens, through the growth of our cities during the Industrial Revolution, to the post-war era, when change rapidly accelerated as nature and wildlife took a back seat to economic growth. And in the final chapter, I look to the future: a future in which wildlife finally has the chance to thrive.

Finally, this is a very personal journey. I have been passionate about the natural world for as long as I can remember. In the half-century since then, my love of nature, and my understanding and appreciation of it, has grown and grown. This happened slowly at first, but as time has gone on, I have finally come to appreciate just how much I depend on the wild creatures, the landscapes and the special places around me. So this book is imbued with my own, very personal, response to what has happened to Britain's wildlife: with my own passions and prejudices, fears and hopes, and wishes and ambitions for the land I love, and the wonderful plants and animals that live here.

STEPHEN MOSS

Mark, Somerset, September 2015

# 1

## Down on the Farm Farmland and Grassland

To many of us, heaven might be the meadows of Edwardian England, the big blue sky, the haycocks a-drying, the clean river running by; while we laze in the sun, read poetry and listen to the bees and skylarks.

Peter Marren, *British Wildlife* (1995)

ONE MORNING, ROUGHLY 5,000 years ago, a young man went to work on what we now call the Marlborough Downs, in the county of Wiltshire. As the sun rose over the distant hillside to the east, he took out a long, narrow blade carefully shaped from a piece of flint, and knelt down by a stone.

Leaning forward, he placed the flint into a groove already cut in the stone's surface, and began to sharpen it. Finally, satisfied that the tool was ready for the job in hand, he set about the day's task: cutting down trees to create an open clearing, where he and his companions could plant seeds to grow crops.

This long-forgotten man was one of the earliest farmers, the first in an unbroken line of individuals and communities who have worked our land to provide food for themselves, their families, and - in later eras - for the rest of us.

Standing by this same stone and looking across this vast, open, windswept landscape, I find it almost impossible to imagine what this place would have looked like before those

first people settled here. Today, these rolling hills and downlands are the quintessential farmed landscape of lowland England: what we know and cherish as a picture-postcard image of 'the countryside'.

We take comfort from the apparently unchanging nature of this scene; and yet if we dig a little deeper into its history, we soon discover that, like most of Britain, there is nothing remotely natural about it at all. Everything I can see, all around me, has been shaped - and indeed is still being shaped - by human hand.

So although we think of Britain's farmed countryside as somehow traditional, consistent and unchanging, it is anything but. It is crucial that we bear this in mind when we contemplate the state of Britain's wild creatures and the places where they live, and try to decide what we can do to bring them back from the brink.



TO REALLY APPRECIATE the way that successive generations of farmers have transformed the landscape I only need to travel a few miles north of the Marlborough Downs, and take the M4 motorway towards London. On both sides of the road, for mile after mile, the predominant colour is green: a patchwork quilt of various shades, occasionally broken by a square of wheat or barley, or the electric yellow of oilseed rape; but mainly the green of highly fertilised grass grown for grazing or silage.

In the words of cultural historian Michel Pastoureau, green is 'a ubiquitous and soothing presence as the symbol of environmental causes and the mission to save the planet'. But this vivid emerald hue, stretching as far as my eyes can see, has nothing natural about it at all. This dazzling green is the colour of intensive farming. By associating it with something positive and 'natural', as many continue to do, we become blind to its real meaning.

Try this simple experiment: look across an intensively farmed landscape, almost anywhere in lowland Britain, and imagine that every green field you can see is a vivid, luminous red – the colour we associate with danger. Now imagine seeing field after field of magenta, scarlet and crimson, stretching off into the distance like a scene from some manic film-maker's futuristic apocalypse. You might not be so inclined to regard our farmed countryside in quite the same way.

The reason this is so important is because it covers more than twice as much land as all our other wildlife habitats combined. Indeed, roughly three quarters of the whole of Britain's land area is defined as 'farmland'. From the arable fields of the lowlands to the hill farms of the uplands, this vast area – about 70,000 square miles in all – is used to grow crops, raise livestock, produce timber or, increasingly, for wind and solar power. Without question this is by far the most important habitat in the country – not just for wildlife, but for Britain's 64 million people too. This is also what we call the countryside.

The *Oxford English Dictionary* defines the word 'countryside' as 'the land and scenery of a rural area'; while its *Cambridge* equivalent expresses the concept in rather more passive terms: 'Land not in towns, cities or industrial areas, that is either used for farming or left in its natural condition.'

But neither of these definitions gets anywhere near capturing the profound resonance of the word 'countryside' to the British ear. This resonance is shaped by memories of our early childhood, poring over picture books showing kindly Farmer Jim on his bright red tractor, surrounded by happy-looking hens, pigs and cows. It is fuelled by the cultural connections of the word, from the poetry of Keats to the music of Vaughan Williams. And it is reinforced each day, as we are bombarded with bucolic images on

advertising hoardings, which exploit our deep love of the countryside to sell us everything from milk to mortgages.

These images and cultural associations take us far beyond any prosaic meaning of the word 'countryside'. Together they conjure up a rose-tinted view of rural Britain held dear by millions; one that is shamelessly exploited by self-appointed, minority-interest pressure groups whose claim to be the guardians of the countryside would be amusing, were its consequences not so serious.

Although this simple word evokes a sense of pride, warmth and affection in the hearts of millions of Britons, we need to think again. The truth is that the vast majority of our lowland countryside is a factory, producing food to sell to the supermarkets and manufacturers, food that will eventually go into our shopping baskets and end up on our dinner tables.

Farmers will tell you that their primary job is to produce food, and they are right. What they may not tell you is that under the current system, in which the supermarkets and wholesalers continually force down the prices they pay farmers for their produce, in order to provide cheaper food for us (and better profits for their shareholders), the farmers themselves have little or no choice but to maximise their yields by using every means possible.

In practice this has meant removing hedgerows to create larger and larger fields, ploughing up field margins so they can plant up to the very edge of the land, and continually spraying with poisonous herbicides and insecticides to wipe out any wild flowers or insects that might compete with their precious crops.

This approach certainly works: it enables Britain's farmers to maximise their resources and produce food at the price that retailers and consumers demand. But it has two major problems. First, that however hard they work, and however much they increase their production, most of Britain's farmers see little or no profit for their efforts. No wonder

that so many of them are struggling to survive, or simply going out of business.

The other problem is that modern intensive farming leaves little or no room for the plants and animals that have shared this rural space with us for thousands of years: the birds and mammals, bees and butterflies, grasses and wild flowers of the British countryside.



TAKE A WALK along a public footpath across open, intensively farmed arable land almost anywhere in East Anglia during the spring or summer, and you'll soon be struck by an odd sense of something wrong. It may take you a while to put your finger on what this is, but after a few minutes it will dawn on you that one important thing is missing: birdsong.

In the bright skies, where distant skylarks should hang in the air, pouring out their song like a leaky tap: silence. In the hedgerows - if you can find one - where whitethroats should be launching themselves skywards and singing their scratchy little tune: silence. And along the edges, where unseen partridges should be revealing their presence by their harsh, grating call, again, all is silent.

Apart from the gently waving heads of corn in the summer's breeze, there is an eerie stillness. Nothing moves. The flutter of butterflies, their colours catching the eye as they reflect the sunshine; the buzz of bumblebees, as they flit from flower to flower; even the flowers themselves - the crimson petals of the poppy, the intense blue spikes of the cornflower, the delicate pinkish-purple of the corncockle - are all absent. In the corncockle's case, this arable weed which was once widespread is now virtually extinct in the wild in Britain.

It's not the only familiar farmland species that has disappeared from vast swathes of the countryside. At first glance, a corn bunting looks rather like a sparrow that has

let itself go to seed: a plump, brown, streaky bird with an unkempt plumage and a tuneless, jangling song. The corn bunting is so closely associated with the farmed landscape that, like the cornflower and the corncockle, our ancestors named it after our most important arable crops.

But in many parts of Britain, the corn bunting's song is now but a distant memory: nine out of ten corn buntings have vanished since 1970, and their breeding range has contracted by more than half during the same period. The same story can be told about the turtle dove, the grey partridge, the yellowhammer – even the once-ubiquitous skylark. During my own lifetime, roughly 2 million pairs of skylarks have simply disappeared; and the same is true of many other farmland birds, such as the tree sparrow, yellow wagtail and grey partridge, whose numbers have fallen by four fifths in the past forty years.

Worryingly, these declines appear to be accelerating, despite efforts to make farming more wildlife-friendly. So the turtle dove, a bird once so familiar that it appears with the partridge in the celebrated song 'The Twelve Days of Christmas', is now predicted to disappear as a British bird by the year 2021. If the corn bunting's decline continues, it won't be far behind.

But statistics only tell part of the story. It is the reality on the ground that really brings home the scale of these declines. Where once Britain's fields echoed to the jangling of the 'fat bird of the barley', or the distinctive purring of the turtle dove, they are now often silent.

These birds are just the most visible tip of a very large iceberg. For all our farmland wildlife, the changes that have taken place over the past seventy years or so have been nothing short of catastrophic. As the countryside has become industrialised, simplified and homogenised, so wildlife has lost the variety of landscapes it needs to survive: the hidden corners where creatures can hide from predators, the hedgerows where they can raise a family, the

ponds where they drink, the stubble fields where they feed in winter, have all vanished. In their place, we have what is an agricultural desert: vast monocultures of single crops such as wheat or barley stretching for hectare after hectare, with barely a hedgerow or tree left standing to break the monotony.

It's easy to look at today's countryside and assume that things can't be quite as bad as conservationists make out. But we only need to find out what we have lost since the end of the Second World War to realise just how much has vanished. During the past seventy years - the span of a single human lifetime - we have lost 99 per cent of our hay meadows, 96 per cent of our chalk and limestone grasslands, half a million farm ponds, and 300,000 miles of our hedgerows - enough to stretch from the earth to way beyond the moon.

For children growing up today, indeed for most of us who cannot remember back more than a few decades, the countryside may appear as if it has been the same for centuries. But those who can still recall the years between the wars know that our rural landscape was very different then: richer, more varied, and above all filled with a far greater variety of plants and insects, mammals and birds. This is not mere rose-tinted nostalgia - but a glimpse of the reality of what modern industrial farming has done to our countryside.

How have we managed to preside over such a cataclysmic decline in our farmland wildlife, a decline that may not be reversible? How have successive governments, conservationists, farmers and the people of Britain - many of whom care deeply about the natural world and would staunchly defend the importance of the British countryside - allowed so many once-familiar creatures to disappear?

To understand how this calamity has happened, we need to go back in time. And although most of the really major changes to our countryside have occurred in the past

seventy years or so, to truly comprehend the enormity of this modern-day destruction we need to rewind the clock 5,000 years. Back to that anonymous early farmer, sharpening his flint axe on the hard, grey stone, before setting forth to chop down the trees that once covered these downlands.



IT WOULD HAVE taken a very long period - several of these first settlers' brief and gruelling lifetimes - to make any significant change to this place; to begin to transform it from a closed, wooded landscape into an open, grassy one. As the forests disappeared, so the underlying shapes of the hillsides gradually became exposed: gentle, rounded, grassy slopes rising up above the surrounding lowlands. And as generation succeeded generation, the view gradually changed to something not all that different from the one we see today.

At Avebury, on the edge of the Marlborough Downs, these early settlers built a stone circle - the largest in Europe. Although not as famous as its neighbour Stonehenge, the Avebury circle is equally impressive; more so, perhaps, for being right by the main road that runs through the village, so that as it comes into view you are suddenly, and unexpectedly, pitched thousands of years back in time.

Many centuries later, they cut through the grass and topsoil of these hills to reveal the chalk below, creating some of the region's most famous landmarks. So on a Dorset hillside above the village of Cerne Abbas, a naked man wields a fearsome club almost as long as he is tall, complemented by his huge (and magnificently erect) penis. Further to the north-east, on the edge of Salisbury Plain, is the more wholesome - and much more recent - chalk carving of the White Horse at Westbury.

These monuments and carvings are evidence of the continued human occupation of this area over thousands of years. It was these early settlers who also shaped the wildlife of this newly changed landscape. Although we have no written records from this period, we can assume that many species that would have been rare and localised until the forests were cleared were then able to take advantage of this new habitat, extending their range and increasing in numbers to become some of our commonest plants and animals.

As well as wild flowers and their accompanying chalkland butterflies, many birds such as the rook and the skylark would have benefited from the clearance of the forests. Mammals would have thrived too: the rabbit, introduced by the Romans, and the brown hare, often thought of as a native species but also brought here from abroad, probably by the Romans' Iron Age forebears, soon became common residents of this new landscape.

When Britain was largely covered with trees, these birds and mammals would have been confined to the few areas of open land which suited their lifestyle: clifftops, the edges of higher ground, and any larger clearings within the woods and forests themselves. But gradually, as the trees were cut down and open grassland and crops began to dominate, they would have gained the upper hand on their woodland counterparts. For what we now think of as 'farmland species', the next few thousand years was a golden age, as they lived and thrived right alongside their human neighbours.



UNFORTUNATELY, FOR MOST of our human history on these islands we have very little evidence of the status of these, or indeed of any of our wild creatures. Only in the seventeenth and eighteenth centuries, when visionary observers such as the

Cambridge botanist John Ray and the Hampshire parson-naturalist Gilbert White began to keep detailed notes and records, do we begin to get an understanding of the relative abundance of different species.

Yet there is another way to know how common a plant or animal must have been in the distant past: by examining any names (including folk names) that have survived to the present day. The premise behind this theory is simple: rare creatures were hardly ever seen or noticed by most people, and so never acquired common names. Thus birds such as the avocet and the red-necked phalarope – both scarce and limited in range – were named in the seventeenth and eighteenth centuries by professional ornithologists. But common and widespread creatures had been given their names long before then by ordinary people, and in most cases had also been granted a series of alternative folk names, varying from place to place up and down the country.

Take that characteristic bird of the open countryside, the skylark. Originally simply known as the ‘lark’ (the prefix ‘skie’ was added in 1678 by John Ray), this once-ubiquitous open-country bird has over the centuries garnered a range of epithets, including laverock, heaven’s hen, skyflapper and rising-lark. Both the official and folk names reflect the bird’s amazing ability to sing while hanging in the air for what seems like hours on end; an ability so perfectly evoked in the opening lines of Victorian poet George Meredith’s ‘The Lark Ascending’:

He rises and begins to round,  
He drops the silver chain of sound  
Of many links without a break,  
In chirrup, whistle, slur and shake,  
All intervolv’d and spreading wide,  
Like water-dimples down a tide  
Where ripple ripple overcurls

And eddy into eddy whirls . . .

This familiar bird is also embedded in our day-to-day language: we say of someone that they 'sing like a lark'; we talk about an early riser as being 'up with the lark', and our grandparents' generation used to talk about 'larking about', though this now appears to have gone out of fashion.

This wide range of names and phrases applied to the bird and its behaviour tells us that the skylark would have been familiar to everyone who lived and worked in the open countryside. The same is true of other species with similarly 'basic' names such as the rook (named after its call), the whitethroat (from its appearance), the yellowhammer (from its colour - 'ammer' is an old German word meaning 'bunting'), the corn bunting (from its habitat) and the linnet (from its food - referring to the bird's liking for the seeds of flax).

The populations of these birds - and the various mammals, insects and wild flowers associated with this 'new' countryside - would have remained fairly constant over time. Certainly until the Second World War these species could be found across vast swathes of lowland Britain, wherever the land was farmed in a traditional way - which was more or less everywhere.

That's not to say that things never altered during this long period of time. One of the most dramatic changes happened in just a few decades at the end of the eighteenth and start of the nineteenth centuries, when the Enclosure Acts transformed Britain's lowland landscape for ever.

Enclosure changed the face of the countryside by encouraging the planting of hedges, which obliterated the previous system of open strip fields radiating out from a village, and created smaller, enclosed plots of land bounded by hedgerows. By allowing private landowners to separate their holdings from one another's, it also produced the familiar 'patchwork quilt' of fields we know today.