A PEOPLES MANIFESTO FOR WILDLIFE

DRAFT ONE - CHRIS PACKHAM ET AL

THE SHINING RAM'S-HORN - 80% EYED LONGHORN BEETLE - 90% WRYNECK - EXTINCT. THIN WEBLET - 84% COD - 87% HADDOCK - 99% GREY PARTRIDGE - 92% WILLOW WARBLER - 44% SMALL SKIPPER - 75% WHITE ERMINE - 70% SAND RUNNING SPIDER - 61% LING - 96% BLACK GROUSE - 80% HAIRY STONECROP - 45% TREE PIPIT - 69% APPLE BUMBLEBEE - EXTINCT. SONG THRUSH - 50% LAGOON SANDWORM - 50% CONGER EEL - 89% WHITE STORK - EXTINCT. WHIMBREL - 50% SMALL COPPER - 46% ROSEATE TERN - 52% JUNIPER - 15% WHITE LETTER HAIRSTREAK - 93% TAWNY OWL - 37% WESTERN WOOD-VASE HOVERFLY - 66% COMMON SANDPIPER - 46% CARLINE THISTLE LEAFHOPPER - 66% HOUSE SPARROW - 66% ROUND-FRUITED RUSH - 46% SPREADING HEDGE PARSLEY - 54% PINTAIL - 38% CALLUM'S BUMBLEBEE - EXTINCT. KINGFISHER - 17% FROSTED YELLOW MOTH - EXTINCT. BASTARD PALM - 37% LAPWING - 64% PURPLE EMPEROR - 61% LAGOON SAND-SHRIMP -20% HIGH BROWN FRITILLARY - 67% SPOTTED FLYCATCHER - 85% RUFF - 72% GREATER WATER-PARSNIP - 65% PLAICE - 97% GLUTINOUS SNAIL - 50% SHAG - 45% FLOWERING RUSH WEEVIL - 90% LINNET - 55% EURASIAN LYNX - EXTINCT. TURBOT - 85% HARBOUR SEAL - 23% CORN BUNTING -89% OYSTERCATCHER - 26% CURLEW - 65% COMMON SCOTER - 43% CUCKOO - 56% WHITE-FACED DARTER - 50% LESSER SPOTTED WOODPECKER - 83% BRILL - 85% GREAT FOX-SPIDER - 84% WATER VOLE - 90% INTERMEDIATE WINTERGREEN - 58% BLACK VEINED WHITE BUTTERFLY - EXTINCT. TURTLE DOVE - 98% YELLOW WAGTAIL - 67% KENTISH PLOVER - EXTINCT. MALLARD - 41% KITTIWAKE - 60% LITTLE TERN - 34% FLY ORCHID - 38% CAPERCAILLIE - 49% TURNSTONE - 47% SPOTTED SULPHUR MOTH - EXTINCT. HEATH FRITILLARY - 91% PHANTOM HOVERFLY - 52% SWAMP LOOKOUT SPIDER - 60% KENTISH SNAKE MILLIPEDE - 70% YELLOW BIRD'S-NEST - 47% GREY WHALE - EXTINCT. RABBIT - 60% WOLFFISH - 96% MAN ORCHID - 50% SKYLARK - 59% IRON BLUE MAYFLY - 80% SKATES AND RAYS - 83% BURNT-TIP ORCHID - 69% SLENDER TARE - 39% MOUNTAIN HARE - 99% SMALL WATER-PEPPER - 67% ARCTIC SKUA - 76% ORANGE SPOTTED EMERALD DRAGONFLY - EXTINCT. CORN MARIGOLD - 77% BULLFINCH - 39% FIELD FLEAWORT - 42% REDWING - 54% HEDGEHOG - 95% LARGE MASON BEE - 50% PURPLE SANDPIPER - 50% MAZARINE BLUE BUTTERFLY - EXTINCT. RING OUZEL - 72% WILLOW TIT - 93% PINK-STRIPED BLOOD-VEIN - 73% ANNUAL KNAVEL - 65% BEWICK'S SWAN - 95% POCHARD - 67% SAND CATCHFLY - 50% FRESHWATER PEARL MUSSEL - 75% V-MOTH - 99% SMALL TORTOISESHELL - 75% MOLE CRICKET - 90% LESSER REDPOLL - 87% BLUE UNDERWING MOTH - EXTINCT. HEN HARRIER - 27% THAMES RAM'S-HORN SNAIL - 50% GRIZZLED SKIPPER - 54% MEADOW PIPIT - 34% OPPOSITE LEAVED PONDWEED - 77% LARGE COPPER BUTTERFLY - EXTINCT. CRESTED COW-WHEAT - 60% SLAVONIAN GREBE - 57% SWIFT - 51% SINCE 1995 HEATH CUDWEED - 72% RED FOX - 41% BURBOT - EXTINCT. FULMAR - 33% FIELDFARE - 80% DUSKY THORN - 98% HOUSE MARTIN - 48% GOLDENEYE - 53% GARDEN TIGER - 92% BROWN LONG-EARED BAT - 31% ESSEX SKIPPER - 90% WOOD WHITE - 88% HAZEL DORMOUSE - 48% BLACK REDSTART - 45% KESTREL - 50% HAIRY CANARY - 50% GOLDEN LANTERN SPIDER - 79% DIPPER - 22% SHELDUCK - 32% HAKE - 95% RED SQUIRREL - 64% SOUTHERN DAMSELFLY - 30% MUSK ORCHID - 60% PALE DOG-VIOLET - 50% SMALL GREY SEDGE CADDISFLY - 56% BROWN BEAR - EXTINCT. SEA BARLEY - 38% GREY WOLD - EXTINCT. NORTHERN BROWN ARGUS - 60% NORFOLK DAMSEL FLY - EXTINCT. TUBULAR WATER-DROPWORT - 55% LARGE MARSH GRASSHOPPER - 85% GREAT YELLOW BUMBLEBEE - 70% SOPRANO PIPISTRELLE - 90% PEARL-BORDERED FRITILLARY - 77% CORN BUTTERCUP - 82% LITTLE OWL - 64% HAIRY CLICK BEETLE - 62% GARDEN DART - 98% REED BUNTING - 31% GREY WAGTAIL - 39% SMALL WHITE ORCHID - 65% WHITE ADMIRAL - 71% HALIBUT - 99.8% GRAYLING - 72% BLUE STAG BEETLE - EXTINCT. LARGE-MOUTHED VALVE SNAIL - 38% GREENFINCH - 46% DOTTEREL - 57% COMMON TOAD - 68% RINGED PLOVER - 59% LADYBIRD SPIDER - 66% TRIANGLE HAMMOCK SPIDER - 62% HEDGE RUSTIC - 97% STARLING - 81% YELLOWHAMMER - 56% SWOLLEN SPIRE SNAIL - 50% FIELD GENTIAN - 49% HARVEST MOUSE - 29% SHORTHAIRED BUMBLEBEE - EXTINCT. TREE SPARROW - 90%

Lest We Forget.

‘Freedom is the right to tell people what they do not want to hear’

A People’s Manifesto For Wildlife - Draft One

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This manifesto has no party-political bias.

It is critical of governance and its affiliation is to the wildlife and people of the UK.

This manifesto is controversial.

It is informed by sound science and fact.

This manifesto is entirely financially independent.

It has no economic dependence or influence.

This manifesto is immune from lobbying.

It has not been influenced or funded by any vested interest groups.

This manifesto is political.

It calls for change in the way we treat nature in the UK - this will require strong and swift government action.

I believe that conservation and environmental care should be wholly independent from any party politics.

I believe we need a greater political consensus on what needs to be done for nature – saying 'we care' is not enough – we need informed action.

I believe conservation policies should be informed by sound science and fact but also motivated by the desire to be kinder and fairer to the living world.

I think that lobbying from vested interest groups working to discredit such facts should be terminated immediately.

I believe that an independent public service body should be established to oversee all conservation and environmental care and that it should receive significant, long-term, ring-fenced funding, so that it is independent from the whims of party politics and different periods of government.

That body – **LIFE UK** – would thus address issues from climate change, biodiversity loss, landscape and conservation management through to wildlife crime, all of which (and more) are discussed in this manifesto.

As the UK's nations have devolved government, **LIFE UK** could be publicly funded with an independent tax akin to the BBC licence fee, payable by all UK adults and similarly scaled. We want and need our wildlife back – so we will all have to pay fairly for it. But we want results too – so its conservation must be independent, informed, efficient and deliver real benefits in real time.

We should all invest in our wildlife.

Let's end the war on wildlife.

'Between 1970 and 2013, 56% of UK species declined. Of the nearly 8,000 species assessed using modern criteria, 15% are threatened with extinction. This suggests that we are among the most nature-depleted countries in the world.

Of the 218 countries assessed for 'biodiversity intactness', the UK is ranked 189, a consequence of centuries of industrialisation, urbanisation and overexploitation of our natural resources.'

- State of Nature Report, 2016

It's horrifying. Depressing. Disastrous. And yet somehow we have grown to accept this as part of our lives – we've normalised the drastic destruction of our wildlife.

To our shame, we are careless with our language. We say that 'we've lost 97% of our flower rich meadows since the 1930s' or that 'we've lost 86% of the Corn Bunting population'. We speak of 'a loss of 97% of our Hedgehogs'. Loss, lost… as if this habitat and these species have mysteriously disappeared into the ether, as if they've accidentally vanished. But they haven't – they've been destroyed.

Our lazy, self-excusing terminology is representative of our chronic acceptance of such appalling catastrophes. We share these shocking statistics amongst ourselves like a vicious game of top trumps – to the extent that they have lost their meaning. We've forgotten that they are a death toll, that they are the dwindling voices of vanished millions, a tragic echo of a recent time of plentiful life.

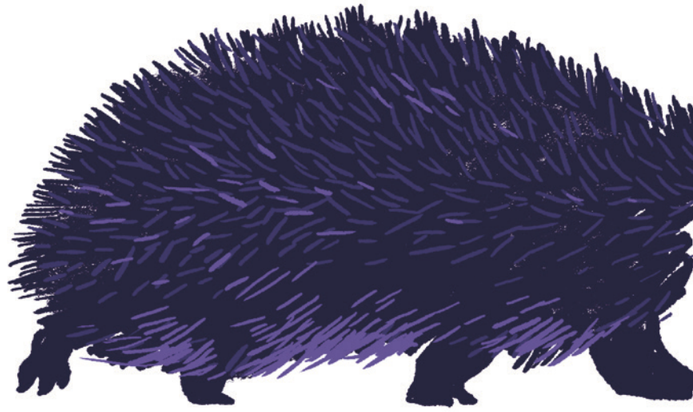
It's time to wake up. We must rouse ourselves from this complacent stupor, because we are presiding over an ecological apocalypse and precipitating a mass extinction in our own backyard. But – vitally – it is not too late. There is hope we can hold to, and there is action we can take.

In July this year I conducted a UK Bioblitz and with the help of 785 recorders and 13 recording centres our team clocked up a notable 4828 different species. Lots of exciting plants, animals and fungi – but also lots of passionate, energetic, skilful, imaginative and creative conservationists. Some were in gardens, some in community wildlife areas, others on wildlife-friendly farms or big flashy nature reserves – all were making a difference in their own important and impressive ways.

We have plenty of tools in the conservation box – we can rebuild, restore, reinstate or reintroduce. But we have one collective handicap – we are shying away from seeing the bigger picture. Too often we distract ourselves with projects which work, but which are too small to stop the rot. Another successful dormouse re-introduction is great, but it's not going to help redress the degradation of our landscape. We know the bigger issues we need to deal with, and we must summon the courage to face them and fight to fix them. Together.

So all you farmers, foresters, reserve wardens, teachers, students and children, all of you 'ologists', scientists, artists, writers and bloggers, you activists, volunteers, gardeners, can everyone please see that this is not your last chance to make a difference – it's ours. The UK's conservation community cannot be selfish. We must let bygones be bygones, all put our egos back in the box and forget about corporate strategies or 'our competitors'. We do not all have to agree about all the details – but we must agree on a shared agenda. We must stand shoulder-to-shoulder with all of those who care enough to take some action and be part of making a difference.

Our wildlife needs *us* – and it needs *you* more than ever.



Was conceived to publish a set of informed ideas from a parliament of strong, independent voices. Ideas which, if implemented today, would make a huge difference for wildlife tomorrow.

Presents a series of essays by 18 Ministers highlighting some of the most critical concerns affecting the UK landscape and its species, each accompanied by ten commandments – 'no-brainer' solutions to the problems.

Has a sister in the form of a free-to-download, fully referenced document. What you read here is supported by rigorous research and science.

THIS MANIFESTO

Has been written to be accessible to everyone with an interest in the health of our countryside and a respect for the species that live there. It is not a dull, dry report – please read it yourselves! Don't just read what someone else says about it.

Is deliberately incomplete. It covers issues which specifically apply to wildlife and its conservation – somewhat artificial given that many wider environmental factors exert enormous pressures upon both. There are also obvious 'missing ministries'... it is presented as a first draft, in hope and expectation of response.

Is yours. It is freely open to future contributions – we urgently need more ideas, discussion and debate to move conservation in the UK forward and cease the war on wildlife. Please distribute and please contribute.

Ministry of Natural Culture and Education

Dr Robert Macfarlane
Reader, University of Cambridge

"A culture is no better than its woods," wrote WH Auden in 1953. Sixty-five years on, Auden's words carry a very modern warning. As the living world is diminished around us, so we are also losing language, stories, songs, poems, dreams and hopes. We need nature for its own sake above all, but also because it is vital to our imaginations and our spirits. We think with nature. We learn from it and in it, as well as about it.

But shifting baseline syndrome means that each new generation becomes normalised to an impoverished version of the natural world. A basic 'natural literacy' is slipping away, up and down the ages, as nature itself slips away. A 2017 Wildlife Trusts survey found a third of adults unable to identify a barn owl, three-quarters unable to identify an ash tree – and two-thirds feeling that they had "lost touch with nature". A three-year RSPB research study found only one in five British children to be "positively connected to nature".

How to bring nature back into the heart of culture and education in this country? At the core of the change that is needed are wonder, knowledge and regular positive engagement: "We change people by delight and pleasure" (St Thomas Aquinas). We will not save what we do not love – and we rarely love what we cannot name or do not see.

Heart, head and hand must all be engaged. The huge inequalities in the distribution of access to the natural world need urgent fixing. Nature needs to be seen as a vital part of everyday life – shaping mental and physical health, play, friendship, imagination – rather than as something hived off and distant, to be visited occasionally on a school trip or family outing, or existing as a specialist subset of science.

There are good grounds for hope. Many young people are actively engaged in driving change, especially with regard to the plastics crisis, climate change and biodiversity loss. There are also thousands of small organisations contributing countless small acts of good. The nationwide response to The Lost Words, and the grass-roots movement to re-green primary education that has sprung up in response to it, suggests the huge hunger for change that presently exists in communities and individuals. But large-scale structural change is clearly needed to close the gap between 'nature' and 'culture' in this country. So how will this happen?

Proposals

Rewrite Section 78 of The Education Act to place nature at the centre of the state curriculum from nursery to secondary school

Outdoor learning one day a fortnight, or equivalent, for every child in primary education

A youth-led re-wilding project of scale to be established in the UK, where all decisions are taken by young people aged 12–21

The John Muir Award which encourages "people of all backgrounds to connect with, enjoy and care for wild places" to be massively extended in scope across the UK

All UK cities and towns to increase their tree canopy cover to 20%, with the planting done by children from local schools

Hospitals and hospices in Britain to increase access to and provision of 'nearby nature' for both patients and relatives

Give all primary and secondary school children access to outdoor growing facilities to provide 'Edible Playgrounds'

Five Ways To Wildness: like the Five-A-Day food recommendation, frequent engagements with nature to become part of our regular 'diet'

The BBC to make a major documentary series addressing the biodiversity crisis

Instigate teacher-training programmes to train primary and secondary school teachers in outdoor learning

‘The modern losses we bewail of the seabird colonies, the insects, the red-backed shrikes, the water voles, they all simply mask a black hole of historic destruction which is so horrifyingly huge that it is almost incomprehensible.

As conservationists study the diminishing delights in intricate detail they commonly fail to understand that these jewels, these fragments, now inhabit greying wastelands which fade with every ticking second.

While we should react with a desperate drive to restore, to heal, to make better, in reality we bicker and viciously squabble. We belittle those who seek to promote change and lose ourselves in a labyrinth of pointless diversion which achieves nothing at all.

We desperately need more conservationists who are independent thinkers. Who ‘do’ rather than witlessly ‘discuss’. Those individuals, who find ways around obstacles with a devilish glee, set examples of lives which are truly worthwhile. Lives for and on behalf of nature’.

Derek Gow
Wildlife Consultant and Conservationist

Ministry of Wildlife Welfare

Dominic Dyer
Animal Welfare Campaigner

Wildlife in Britain today is under severe threat. A combination of industrial farming, over-fishing, hunting and shooting is wreaking havoc on species and their habitats from farmland to the hills to the coast.

Despite this grim picture, our system of government continues to allow the levers of power to remain firmly in the control of the farming, fishing, shooting and hunting industries that are doing so much damage to wildlife. The impact of putting the interests of these sectors above that of protecting wild species is catastrophic.

Since 2013, under huge pressure from the industrial farming lobby, the government has wasted an estimated £50 million of public money on a cruel, ineffective and scientifically unsound badger cull. This failed attempt to stop the spread of bovine TB in cattle has resulted in the largest destruction of a protected species in living memory.

Despite being one of the most popular pieces of legislation on the statute books, the Hunting Act of 2004 continues to be a target for the pro-fox hunting lobby, who use their political influence to seek to scrap, weaken or sabotage the Act. From the development of trail hunting, which is simply a ruse to mask the illegal hunting of foxes, to use of the 'Research and Observation' exemption in the Hunting Act as an excuse for the continuation of stag hunts, the illegal hunting of wild animals with dogs remains all too common across the British countryside.

On eastern Scottish moorland, culling by grouse moor managers and habitat loss has resulted in a catastrophic collapse in mountain hare populations to less than 1% of the level recorded more than 60 years ago. With as many as 38,000 mountain hares being killed on hunting estates across Scotland, these iconic and beautiful animals could disappear completely from parts of the Eastern Highlands in our lifetimes.

The annual commercial seal cull in Canada is rightly the subject of huge international concern, but it will come as a nasty shock to many people to learn that hundreds of seals are also shot every year in Scotland to protect fish farms and wild fisheries. The salmon farming, wild netting and angling industries are worth over £600 million to the Scottish economy every year, but many of these businesses are unwilling to invest in predator exclusion methods, when it is cheaper to obtain a government licence to shoot seals.

For a nation of animal lovers the cruelty inflicted on our wildlife is woeful and widespread – so what can be done?

Proposals

Call an immediate halt to the badger cull

Launch a publicly funded national badger vaccination programme to reduce the level of TB in badgers

Bovine TB in cattle to be reduced through a combination of improved TB testing, tighter movement and bio security controls, risk based cattle trading and a TB cattle vaccination programme

The use of dogs below ground by hunts which leads to the death of foxes and badgers to be prohibited under the Hunting Act

A 'reckless provision' clause to be inserted in the Hunting Act to stop hunters using the false alibi of trail hunting

The 'Observation and Research' exemption which has been abused by stag hunts to be immediately removed from the Act

The indiscriminate and ruthless slaughter of Scotland's mountain hares to stop immediately

Management of mountain hare numbers to be more tightly controlled by Scottish Natural Heritage to safeguard populations

The Scottish government to cease the issuing of any further licences for the culling of seals

The Scottish government to introduce a funding programme to help fish farms and wild fisheries meet the costs of non-lethal protection methods to deter seal incursion, including acoustic devices and nets

Ministry of Wildlife Crime

Dr Ruth Tingay
Raptor Ecologist and Conservationist

Wildlife crime has been broadly defined as, "Any action which contravenes current legislation governing the protection of the UK's wild animals and plants", although there is an international dimension and also considerable overlap with animal welfare legislation. The legislation is voluminous, complex and full of loopholes which highly-paid defence lawyers are able to exploit.

To maximise the use of limited resources, six UK National Wildlife Crime Priorities have been identified: badger persecution, bat persecution, wildlife trade (CITES), freshwater pearl mussels, poaching, and raptor persecution.

Understanding the scale and frequency of wildlife crime is crucial, not only to allocate scarce resources appropriately but also to inform governments to enable them to develop effective policies to reduce crime. However, despite some wildlife crimes falling under the definition of Organised Crime, current crime recording requirements are inadequate and ineffective resulting in chronic under-recording. This leads to a vicious cycle of being unable to provide the evidence to convince governments that further action is justified, although recent improvements have been made in Scotland.

For some wildlife crime, notably raptor persecution, the extent and scale can be determined by other sources of evidence. Long-term scientific data have repeatedly shown that raptor persecution is so widespread and systematic, particularly on land managed for driven grouse shooting, that it is having population-level effects on some species. The Scottish government has begun to utilise these data to identify wildlife crime hotspots and exert additional pressure but the Westminster government remains wilfully blind, largely due to vested interests and the hugely influential landowners' lobby.

A further consequence of under-recording is an inconsistent approach to the police investigation of reported wildlife crime. If the data aren't available to demonstrate wildlife crime as a local problem, Police Crime Commissioners will struggle to allocate sufficient funding and resources from already over-stretched budgets, resulting in poor quality follow-up investigations. With just a handful of notable exceptions, most police forces expect their specialist wildlife crime officers to undertake investigations secondarily to other policing duties.

Unsurprisingly against this backdrop, prosecutions for wildlife crime are rare and even when a conviction is secured, penalties are inconsistently applied and often with little or no consideration of the wider conservation impacts of the crime.

Currently, many wildlife crime offenders can be seen to be 'getting away with it' because penalties have little personal consequence. But even if stiffer penalties were applied, the deterrent effect would still be minimal because offenders know that the chances of prosecution are so slim that this outweighs the risk of committing the offence in the first place. So what needs to happen?

Proposals

All wildlife crimes to be made recordable offences using official Home Office codes

The English and Welsh governments to publish an annual wildlife crime report, as they do already in Scotland

Create a national, multi-agency response unit to investigate all offences that fall under the National Wildlife Crime Priorities

This unit needs to be proactive, rather than reactive, conducting regular unannounced spot-checks in known wildlife crime hotspots

Introduce the offence of vicarious liability for all landowners in England and Wales, to make them responsible for wildlife crimes on their land as is the case in Scotland

Substantial increases in penalties for all wildlife crime and additional penalties for crimes with conservation impact and those committed inside National Parks

Remove all public subsidies for landholdings where there is evidence that employees/tenants have committed wildlife crimes, based on a civil burden of proof

Automatically remove firearms and shotgun certificates for 10 years following any individual's conviction for any wildlife crime, regardless of the sentencing tariff

A new law for England and Wales to make it an offence to possess specified banned poisons commonly used for wildlife crime, as in Scotland

We must urgently address and resolve issues concerning inadmissibility of evidence pertaining to the use of covert cameras to monitor wildlife crime committed in remote areas

Is shooting in the UK out of control?

There are real conflicts of interest between shooting and conservation in the UK, notably wildlife crime, the use of lead shot, the continued harvesting of endangered species and the ecological impact of non-native game species. Central to this is a lack of regulation.

The UK has some of the most intensive game bird management systems in the world but they are very poorly regulated compared to other countries. This lack of regulation thus contrasts sharply with the licensing systems in place overseas. In the UK game shooting is only controlled by having an open and closed season, which restricts the time of year when birds may be shot, and firearms legislation which places restrictions on who may have access to guns. There is some other legislation covering the use of traps and snares but this is rarely if ever enforced. In contrast in Germany and Spain there are powers in place to remove hunting licences and firearm certificates where wildlife crimes are committed and strict habitat management plans and game bag returns are also required in order to inform real conservation for the populations of shootable species. So what should we do?

Introduce licencing for shooting estates and individual licenses for shooters including a two-part practical and theoretical examination to ensure suitability and competence. Implement the ability for regulators to permanently revoke a licence for an estate or individual if the law is broken. Introduce strict harvest quotas and independently scrutinised bag monitoring to better understand the impacts of shooting and inform conservation.

There are other serious issues concerning shooting which deserve urgent attention.

The public subsidy of the UK shotgun licence should be ended immediately to bring it in line with other unsubsidised licenses such as the driving licence and passport.

The cost of shotgun licence renewal is £49 but police forces say the administration cost can be in excess of £200 meaning that they and the taxpayer shoulder the burden. Further, as part of the application process our beleaguered NHS GP's are required to supply information about patients seeking a licence but are not paid for this. I believe that the NHS should not be subsidising non-NHS work but recognise it is obviously important that relevant medical conditions should be flagged to police. Thus in line with applications for pilots, divers, parachutists and other private hobbyists, shooters should also be fully charged for their medicals.

A moratorium on the shooting of Woodcock and Common Snipe should be implemented immediately and the impact of shooting them measured through rigorous and independent research.

Both these species can be legally shot in the UK despite declines in their UK populations between 1974 and 1999 of 76% and 67% respectively. Woodcock are red listed and snipe are amber listed. The reasons for their decline include habitat loss and drainage – not solely shooting. Woodcock shooters claim that shooting after December 1st avoids killing UK breeding birds but their own data confirms that 17% killed are resident birds. The migrant populations may also be declining. Some shoots have voluntarily ceased hunting these species but the numbers shot are at a historically high level. The effects of this harvesting on the population are unstudied and unknown.

The effects of introducing a minimum of 44 million non-native Ring-necked Pheasants and 9 million Red-legged Partridges into the UK countryside each year should be immediately measured through rigorous and independent research.

Vast numbers of these birds are released to be shot, presumably because native species such as Grey Partridge, Black Grouse, woodcock, etc have all but vanished. But in line with the lack of regulation in UK shooting we don't actually know how many of these birds are released to be shot nor what impact they have on the ecology of our countryside. The releasing of other non-natives is strictly controlled or illegal. Given the available, but incomplete, data we can estimate that more than half the biomass of our British birds in late summer is made up of Pheasants. Their sheer numbers suggest they compete for resources with other seed eating birds and small mammals. Near their release sites, they have been observed to alter woodland flora and to impact invertebrate communities and hedgerow ecology. They have also been linked to a decline in woodland birds and there is anecdotal evidence to implicate

them in declines of snakes, lizards and woodland butterfly numbers. Their super-abundance may also artificially increase the populations of generalist predators which in turn have a disproportionate impact on rare native species. And to ensure enough survive to be shot (sic) hundreds of thousands of native mammal and bird predators are legally killed each year.

Millions of shot birds, mostly Pheasants, are wastefully dumped because the market is so saturated they have no financial value. And because they are killed with lead shot consuming them represents a public health risk. (See Ministry of Lead)

Driven grouse shooting should be banned.

This intensive practice is so destructive in so many ways that its tenure has long expired. The on-going and serious criminal persecution of protected birds of prey is limiting their population recoveries or driving them towards extinction. The wholesale slaughter of mountain hares – to supposedly reduce the transmission of disease to red grouse – has reduced their population density in parts of north-east Scotland to 1% of its 1950s level. Upland areas are damaged by grouse moor management which drains moors leading to flooding downstream. The burning of moors to benefit grouse exacerbates climate change and destroys internationally important blanket bogs. The excessively high densities of grouse encourages disease which is transmitted via medicated grit trays. There is an almost complete lack of monitoring to test whether these veterinary medicines reach the human food chain. And we pay for it, the ten largest English grouse moors are paid more that £3 million in farm subsidies every year.

The best way to deal with this litany of environmental destruction is to ban driven grouse shooting.

All forms of snaring should be outlawed immediately in line with most other European Countries.

In 2012 a government study found that only 32% of the animals trapped in snares were the intended targets – normally foxes. The remaining 68% caught, severely injured or killed in these nooses included hares, badgers, family cats and dogs, deer and even otters. It is estimated that snares may trap up to 1.7 million animals every year.

The House of Commons debated the use of snares in July 2016 and MPs advocated a ban. However, the government ignored the vote and pushed ahead with the introduction of a revised voluntary code of practice. A study by the shooting industry revealed that less than half of the gamekeepers polled had ever read the code. Currently 77% of the British public think snares should be illegal and 68% of MPs also support a ban on snares. The UK is one of only 5 of the 28 EU member states where snaring is legal.

Ministry of Lead Ammunition

Dr Rob Sheldon
Conservationist

In the first century CE Dioscorides – a physician in Nero's army – observed that "Lead makes the mind give way." The toxicity of lead has been understood for millennia.

We now know that even low levels of lead are toxic to humans and other animals. In the UK, lead was banned from use in petrol, paint and water pipes decades ago, with most other uses strictly controlled. Lead ammunition (gunshot and bullets) remains a glaring and largely unregulated exception. In England, even the limited restrictions from 1999 banning certain uses of lead gunshot are largely ignored. At least 5000 tonnes of lead ammunition are deposited into the UK environment annually, accumulating a toxic legacy and causing suffering and death to large numbers of birds. As well as polluting the environment, lead ammunition often fragments on hitting an animal, leaving tiny lead particles in the animal's tissues. These fragments can then be eaten by predatory or scavenging birds or by people eating the game meat.

Waterbirds (like ducks, swans and geese) and terrestrial gamebirds (like pheasants and partridges) eat spent lead gunshot directly, mistaking it for grit or food, whereas predatory or scavenging birds (like eagles or kites) eat ammunition or lead fragments in the flesh of injured or dead game animals. Once absorbed, lead can paralyse muscles, affect behaviour and reproduction, and when enough is absorbed it kills. An estimated 50,000-100,000 wildfowl die of lead poisoning each winter in the UK along with many more terrestrial birds, and lead likely affects the populations of some threatened species, like the Common Pochard.

People who frequently eat game shot with lead ammunition are also at risk, especially children and pregnant women. Numerous scientific studies have identified an association between increased levels of lead in the blood and reduced IQ in children. The European Food Safety Authority concluded that "efforts should continue to reduce lead exposure from all sources".

This poisoning is unnecessary. Effective alternatives to lead ammunition already exist. Denmark banned the use of lead gunshot for all shooting (game and targets) as long ago as 1996. It is time for the UK to catch up and stop lead ammunition from polluting the environment and poisoning wildlife and people.

A total ban on the use of lead ammunition will benefit wildlife, people and the environment.

Proposals

Government to put the UK on the front foot by introducing a ban on the sale, possession and use of all lead ammunition across the UK

Food Standards Agency and National Health Service to undertake a public awareness campaign to promote the health risks from consumption of game shot with lead, especially to pregnant women and young children

Individuals, NGOs and Statutory Agencies that manage land to ensure that any shooting that takes place on their land uses non-toxic ammunition

Statutory Agencies to ensure that these restrictions can be readily monitored and enforced and that penalties are appropriate, including the withdrawal of firearms licences for those who flout the law

Government to support the current European Chemicals Agency (ECHA) proposal to ban the use of lead gunshot in wetlands and support future restrictions in the use of lead ammunition for all shooting

Restaurateurs and celebrity chefs to ask suppliers to provide only game that has been shot with non-toxic ammunition and promote this in recipes and restaurants

Concerned members of the public to write to their MPs about the need to ban lead ammunition

Supermarkets that sell game shot with lead ammunition to be boycotted with explanation

Concerned shooters to use non-toxic ammunition and to encourage fellow shooters to do likewise

Campaigns mounted focussing on shooting organisations, asking them to publicise the evidence and the need for a switch to non-toxic ammunition

Ministry of Wildlife Law

Carol Day
Solicitor

We are witnessing catastrophic declines in plants and animals and there is ever more evidence that we are pushing the planet beyond safe limits. There has never been a greater need for a strong legal basis to halt biodiversity loss and achieve improved animal welfare.

In the absence of a written UK constitution, the right to a clean and healthy environment for current and future generations, and for nature itself, should be at the heart of a new Environment Act – Brexit or not. This will require the governments of the UK to set ambitious targets to restore habitats and recover species and ecosystems to a favourable, self-sustaining status within the national and international context. It will also require the imposition of duties on public bodies to respect fundamental environment principles, and to empower civil society to defend wildlife through strong environmental rights. This includes the right to environmental information (the right to know), the right to engage in decisions affecting the environment (the right to participate) and, ultimately, the right to take legal action against those whose decisions and activities threaten the environment (the right to challenge).

While these rights should be fundamental, they must not replace government's responsibility to enforce environmental law. The European Commission currently plays a crucial enforcement role and this function must be replicated and reinforced, if we are to leave the EU. We need a new watchdog empowered and resourced to investigate complaints from the public, and to take legal action in its own right on an informed, scientific basis. That watchdog must also enjoy the power to refer cases to court and not be vulnerable to dissolution in the face of unpalatable action against the state.

The rule of the law is the foundation of democracy, but the judicial system needs an overhaul if it is to serve the needs of the environment. There are approximately 1,500 environmental courts and tribunals operating in 44 countries world-wide delivering effective and cost-efficient environmental justice. There is no such court in the UK.

We need a bespoke environmental forum to hear civil and criminal cases staffed by judges and technical advisers with a robust understanding of environmental issues. Judicial Review, the process through which the actions of public bodies are scrutinised, should be more concerned with the merits of a decision than purely the process by which a decision was made. People should not have to face crippling legal costs to bring public interest cases to court but, on the other hand, the courts should be able to impose dissuasive penalties (financial and otherwise) proportionate to the environmental impact of the offence committed. Habitats must be restored, individuals should be held accountable for the acts of the businesses from which they profit and responsibility must bite on those who turn a blind eye to crime on their behalf.

Proposals

A new Environment Act, similar to the Human Rights Act, with the core principle that everyone, and nature itself, has the legal right to live in an environment adequate to their health and well-being

The new Act to impose a duty on public bodies and the courts to act in compatibility with it, and to enforce planetary boundaries and environmental principles - such as “polluter-pays” and sustainable development

The new Act to include duties to restore habitats and species to favourable conservation status, to recover terrestrial, aquatic and marine ecosystems to good ecological status, and to prevent the mistreatment of animals

The Act also to impose a statutory duty on the governments of the UK to meet the commitments of international environmental agreements, such as the Biodiversity Convention’s Aichi Targets, the Paris Agreement on Climate Change and the UN’s Sustainable Development Goals, through cooperation, consultation, action, monitoring and reporting

Every citizen to be empowered to defend nature and the environment by enshrining environmental rights in law, allowing participation in environmental decision-making, and placing environmental information in the public domain

In order to protect these environmental rights, the government to establish an Environmental Court with environmentally literate judges, technical advisers and bespoke rules on standing, costs, intensity of review and penalties/remedies

Public funding to be provided for cases brought in the public interest by individuals and NGOs

If we leave the EU, an independent watchdog with sharp teeth and a wide remit to be established, empowered and resourced to take up cases on behalf of the public and initiate enforcement action of its own volition against all bodies performing public functions

Penalties for wildlife crime and animal welfare offences to be dissuasive and proportionate to the offence committed, and an offence of vicarious liability to be established outwith Scotland in relation to raptor persecution

The playing field of planning to be levelled by introducing a third-party right of appeal, so the public have the same right as developers to challenge the merits of planning decisions

“The landscape in the UK is shaped by farming. Yet not all change in recent times has been desirable: soils have been depleted, water courses degraded and nature has struggled to cope with the pace of change.

However, many farms are bucking this trend. Soils are being restored, nature is thriving and if more farmers followed this lead we can reverse these declines. With over 70% of the UK being farmland, we need to act now to deliver for wildlife at a landscape scale.

Nature friendly farmers believe that now is the moment for radical change in agricultural policy that rewards farmers for the conservation of natural resources alongside sustainable food production.”

Martin Lines
Farmer & UK Chair of Nature Friendly Farming Network

Farmers are not the problem - they are a solution

There is a growing animosity in the conservation movement towards intensive farming. In 2017 a scientific report revealed that 76% of flying insects had vanished from German nature reserves over the last 25 years. In March this year two studies in France recorded a decline of 30-80% in farmland bird numbers in the last 15 years, matching our own UK figure of a 54% reduction between 1970 and 2015. In all cases habitat destruction and pesticide use are implicated. And if these trends continue then we are facing an ecological apocalypse across Europe.

There is no doubt that industrial farming is a central part of the problem, but is it fair to blame farmers and will it help wildlife’s cause? No.

Farmers as individuals are very rarely the issue and many should be the most effective part of the solution. There is a large, profitable, organic farm which I visit where there is a far greater biodiversity than on the SSSI next door. It is brimming and buzzing with life, it is beautiful, I always leave with my faith in the partnership between sustainable farming and conservation intact. The problem is simply that those who are farming in harmony with wildlife are too few and the areas they are improving are still far too small. The excellent Nature Friendly Farming Network describes this cohort as ‘many’, a ‘figure’ often quoted widely in the farming fraternity, but its subjectivity hides the fact that this ‘many’ are not yet contributing anything meaningful... because there are not enough of them to turn the tides of ecological destruction. Why?

Because – just like other conservationist groups – theirs is a movement motivated by a slowly growing coalition of personally motivated energies. The broader farming movement is not being properly encouraged to join in, and one of the principal barriers to this is the National Farmers Union.

This organisation is neither national nor properly representative of all farmers' interests, and nor is it really a 'union', as in a democratic association of workers created to help represent their collective interests in negotiations with their employer. As highlighted by the Ethical Consumer investigation into the premise and practices of the NFU, 'English Agribusiness Lobby' would be a better name. Scotland, Wales and Northern Ireland have their own 'unions'. The attention of these 'unions' to the interests of smaller farmers is slight, compared to the focus given by them to larger intensive farming methods, and their relationships with powerful agrichemical companies such as Syngenta are notable and significant. These 'unions' don't appear to like science much unless it suits their agenda: in the teeth of the weight of scientific opinion they have been keen advocates of the badger cull, they steadfastly fought against the withdrawal of the neonicotinoid pesticides and have resisted restrictions in the use of Glyphosate. Why?

Sadly the 'NFU' don't appear to like conservationists much either, doing little to encourage relationships between us and farmers; indeed some of their members have branded us as 'anti-farming', thereby polarising the two obviously closely allied groups. Sadly this has found traction in the farming fraternity, especially amongst the large chemically dependent and intensive sector. This is disappointing and especially harmful when the wholesale declines in biodiversity due to intensive agriculture must be addressed by farmers and conservationists together. So what should we do?

Expose the actual agenda of the farming 'unions', restrict their lobbying power within government, encourage them to embrace a real interest in wildlife friendly farming initiatives, including a properly proportional representation and promotion of organic farming, and press the 'unions' to educate their members to implement clear science-led policies and more sustainable long-term farming strategies.

And outside of this it is down to all of us to support the UK farming fraternity. Our hunger for the cheapest food means that someone is paying the real cost... our farmers. Many struggle to realise a profit on their produce, thus becoming dependent on our tax hand-outs, because we rush to supermarkets to spend on cheaper food from overseas. We must start putting our pounds into UK farmers' pockets even if it costs us a little more. How can we summon the temerity to ask them to do this, that or the other for conservation if we turn our backs on their beleaguered economy in the aisles of Tesco, Sainsburys or Waitrose? They are the only people out there on that 70% of our landscape used for farming who can actively make the difference. So please support ethical, wildlife-friendly farmers, and help them to lead the way to a new farming future: **a future where wildlife thrives.**

'I don't feel represented by the NFU. In fact, I find myself increasingly alienated by their self-righteous lobbying for the short-term interests of a small number of large-scale farmers. This especially applies to their resistance ... to even the tamest environmental regulation; to public access to land; and to any redirection of farming subsidies to encourage younger, smaller-scale entrants to the industry.'

Guy Watson
Farmer, Riverford Organics

Some people think that ‘farmers’ and ‘environmentalists’ are locked in a fight about nature. I don’t.

I think if it becomes a fight we all lose. It is time to put egos aside and work together to change things.

I am a farmer. I want more nature in our countryside. These two statements are not in conflict.

Britain is overwhelmingly farmland, so the main opportunity for change is on farmland, IF we can find compromises between our need for food and our need for nature.

I am trying to massively improve my land for nature and trying to make a living and pay my bills by doing so. It is almost impossible.

So I, and thousands of other farmers, need your help to create a food system that values and rewards nature-friendly farming, and discourages and disadvantages damaging farming practices. This requires all of us rethinking the way we live, shop, cook, and eat, and vote, so that we wean ourselves off the damaging farming that has fed us cheaply, but at an appalling price to nature.

The love that most farming people have for their land, and their wish to be respected and appreciated by the rest of us, is the essential foundation for building this change.

James Rebanks, author of ‘The Shepherd’s Life’, and ‘Lake District Farmer’

Ministry of Pesticides

Professor Dave Goulson
University of Sussex

The regulatory system for pesticides has repeatedly failed to prevent harmful chemicals from being approved for use in our countryside. For example, organochlorides, organophosphates and neonicotinoids were only banned after decades of use and environmental damage. As Ian Boyd, Defra's chief scientist, recently admitted: "The current assumption underlying pesticide regulation – that chemicals that pass a battery of tests in the laboratory or in field trials are environmentally benign when they are used at industrial scales – is false".

Conventional industrial farming sees the repeated application of multiple pesticides to our landscape on a breath-taking scale. About 500 different 'active ingredients' (i.e. poisons) are licensed for use in the EU. In 2016, 16.9 thousand tonnes of 'active ingredient' were applied to the farmlands of Great Britain, comprising 5.9 thousand tonnes of fungicide, 7.8 thousand tonnes of herbicide, and 315 tonnes of insecticide. Pesticide use continues to rise; on average, each farmer's field was treated with 17 different pesticide applications in 2016, approximately double the number of pesticide applications made 25 years ago. In short, our farmland is being subjected to a massive barrage of poisons, leading to contamination of soils, hedgerows, rivers and ponds.

All farmland wildlife is being chronically exposed to a complex mixture of pesticides, the effects of which are far beyond the capacity of scientists to predict or understand. The same is true of the effects on humans consuming food generated in this way, for from conception onwards we are also chronically exposed to mixtures of pesticides in our food and drink.

It is often argued that pesticides are essential if we are to feed the world. However, recent studies suggest that much pesticide use is unnecessary, and that most farmers would be financially better off if they used fewer pesticides. Many pesticides are now used prophylactically, rather than in response to a pest problem. Despite the enormous number of pesticides plus synthetic fertilisers used in industrial farming, organic farming manages to produce on average 80 to 92% of the yield. Organic has had almost no investment on research, and it is highly likely that this gap could be closed (in contrast billions of pounds have been invested in developing new chemicals, crop varieties etc. for industrial farming). With small savings in food waste (currently about 30% of food is wasted) and slight reductions in meat consumption, pesticides could become unnecessary. So what should we do right now to address this?

Proposals

Set target for a 50% reduction in both the weight of pesticides used and the number of pesticide applications per field by 2022. France and Denmark have recently set clear reduction targets of 50% and 40%, respectively

Introduce a pesticide tax. Denmark recently did so, the tax representing 34-55% of sale price of the pesticides

Use revenue from the pesticide tax to fund an independent advisory service for farmers, with on-farm field trials to test effectiveness of pesticide reduction measures/alternatives to pesticides

Set a target for 20% of UK farmland to be organic or in conversion by 2022, supported by diverting existing 'pillar one' area-based farm subsidies

Ban glyphosate, with a time-limited derogation for use in no-till farming systems until alternative weed control methods are developed

Make all records of pesticide use transparent and open access, so that anyone can see what pesticides are used on each field. At present farmers are obliged to record these data but they are never made public

All fruit and veg to be labelled with the pesticides used in their cultivation. If not practical to put such labels on every item, they should be listed on the company website

Ban pesticides in parks and make cities/towns/villages pesticide-free, as has happened in many cities abroad, such as Toronto

Ban neonicotinoids from use as flea treatments on pets or as ant baits (this is not covered by the new EU ban)

Set up a nationwide scheme to measure levels of pesticides in soil and rivers

‘Some 50 to 60 years ago, the countryside was a myriad of diversity, with small fields enclosed by thick hedges, ancient copses, ponds and rough places nestled between the permanent pastures, leguminous leys, cereals and root crops like turnips and mangolds. These were, with the local breeds of sheep and cattle, the instruments of a sustainable mixed farming system. Crop rotations built soil fertility and controlled damaging pests and weeds.

Subsequently, the introduction of toxic pesticides and artificial fertilisers factored a new ethos. The countryside, once managed in a compromise between conservation and food production, had now to be re-engineered to one sole purpose – industrial agriculture. To achieve the uniformity demanded, hedges were excised, woodlands torn down, plants and wildlife exposed to a toxic medley of agrichemicals and the atmosphere and ground water polluted by nitrogenous derivatives. The inherent fertility and substance of the ground is now eroding away so that soon, the soil itself will be no longer capable of yielding a crop. The consequences are that most wildlife has been lost and what is left threatened.

Farmers induced by agrichemical companies have ignored the past and stolen the future.

A return to sustainable agricultural practice and building fertility naturally, would transform the countryside, help mitigate global warming and restore wildlife’.

Henry Edmunds FRES
Farmer and Conservationist

Ministry of Food and Farming

Miles King
Environmental Policy Researcher and Advocate

Access to nutritious food is a fundamental human right. The current food system fails to ensure this right is met in the UK. On the one hand food is too expensive for the poorest. On the other it is too cheap, meaning the costs to the environment are too high. Too much of the capital produced in the food industry is extracted by shareholders, in agribusiness and retail giants. Our tax system also encourages land to be used in unsustainable ways.

Public health has to be seen as a public good alongside environmental ones. The overwhelming power of the big three/four retail giants has to be broken.

On an island particularly suited to it we only produce 23% of the fruit and veg that we consume. That means we are exporting the social and environmental costs of producing that food – mostly to Spain. Brexit is now causing a big shortfall in seasonable labour. Wages must increase to attract workers to these vital jobs.

Half of the wheat produced in the UK is used to feed animals, while 85% of UK farmland is used to produce meat and it only provides around 18% of the calories we need. This is unsustainable. A plant-based diet cuts the use of land by around 75% and halves the greenhouse gases and other pollution that are caused by food production. Between 30 and 50% of all food produced is presently wasted.

50% of the world's human population is sustained by food produced with artificial nitrogen fertiliser, but the figure is much higher for the UK, with organic accounting for only 1.5% of the total UK food and drink market. Over-use of nitrogen has caused widespread environmental damage to rivers, wetlands, by polluting drinking water, compromising soil health and leading to eutrophication. It also means that food is less nutritious than it used to be.

Farmland wildlife has massively declined over the past 70 years and that's down to government policies and subsidies. We are now in danger of having farmland that is devoid of wildlife other than a few very common species which benefit from the intensive industrial approaches.

Agri-environment schemes have failed to stem these declines, though intensive management for a few species – such as the Cirl Bunting and the Adonis blue butterfly – have been successful. Increasingly farmers do care about the wildlife on their farmland, but, thanks to Shifting Baseline Syndrome, they cannot appreciate what has already been lost. The economic and peer-group pressure to maintain or increase food production as the primary reason for farming also forces farmers to eradicate what little wildlife is left.

These pressures have combined with long-term problems such as too much nitrogen and phosphate accumulation, decades of pesticides use, wetland drainage, woodland & hedgerow loss and wholesale conversion of wildlife-rich grassland to intensive grass monocultures. We are now at crisis point in the farmed environment. So what can we do?

Proposals

Focus on increasing domestic fruit and vegetable production with special support for small-scale producers

Launch a public education campaign to change what we eat - less meat and more fruit, vegetables and pulses

Reform the tax system to ensure tax benefits are only provided in return for public goods

Introduce 'Fertiliser Taxes' and use the income to fund environmental clean-ups and organic conversion

Break the power of the big supermarkets through a much stronger competition regulator

Pay farmers a fair price for the food they produce in return for producing it much more sustainably

Fund support for zero-till and other types of farming which restore soil health

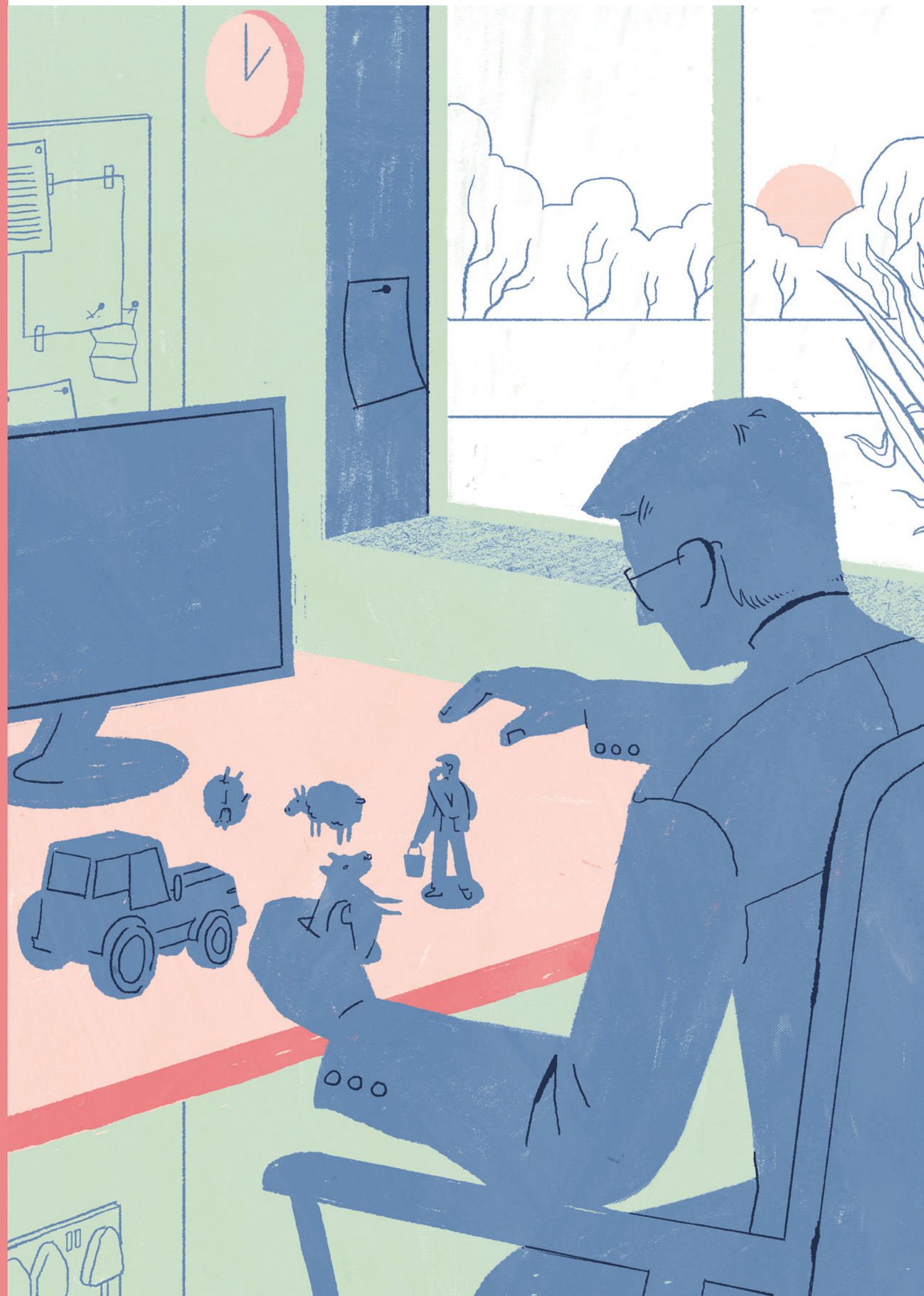
10% of every farm to be managed for wildlife through wide field margins, sown wildflowers, restored farm ponds and wetlands, etc

All surviving remnants of wildlife-rich farmland to enjoy legal long-term protection as nature conservation areas

Massive drive to reduce food waste at all points in the system

‘During my career as a Rural Chartered Surveyor, the government’s principal environmental policy has been delivered through the Countryside Stewardship Scheme. With 12,000 acres under management including cereals, livestock and vegetable enterprises, we have witnessed the tragic decline in biodiversity that is mirrored throughout England. Only after deciding to break with Stewardship requirements have we seen a significant turnaround, with insect and bird life returning to levels not seen for a generation. The fault with Stewardship is that it dictates what conservation measures are required of a farmer from a desktop, rather than knowledge of the land and particularly of the soil itself. The process is looking through the telescope from the wrong end and until this is reversed, the degradation of our natural history will continue. Countryside Stewardship Schemes have failed and Brexit provides the chance to make radical changes before it is too late.’

Anonymous Land Manager & Farmer



IMPORTANT

The comments below are not directed at the highly capable, hard-working and committed staff of these agencies who despite difficult circumstances strive to be effective conservationists. You have our utmost respect and admiration.

Due to devolved government it is impossible to make direct comparisons between the various UK statutory agencies responsible for wildlife conservation. They all have different roles and remits, and different structures. For instance in England the Forestry Commission is separate from Natural England but Natural Resources Wales has absorbed that body, as they have the Environment Agency. Nevertheless there are parallels in their problems - most notably those of under-funding and loss of trust.

Natural England

Are not fit for purpose. Which is sad. This once-effective independent advisory body has not only been rendered impotent, but also sometimes presents a significant handicap to conservation in England. Its leadership has not delivered progress; its board includes members with interests which potentially conflict with conservation of the natural environment; it is necessarily beleaguered by a litany of Freedom of Information Requests and Judicial Reviews, despite its public ownership; and its remaining staff are in a state of poor morale, but afraid to speak out.

The considerable expertise of these staff is being undermined by these circumstances, and they are denied the ability to make informed decisions. Thus many of NE's actions – or inactions – are embarrassing, inexplicable or in some cases even dangerous to wildlife. It has struck deals with developers, grouse-moor owners and others with economic interests, freeing them from regulatory restraint without any or sufficient ecological benefit in return. Monitoring of SSSIs has been all but abandoned, and its National Nature Reserves are imperilled. NE is frequently at odds with the farming fraternity due to late payments of agricultural stewardship subsidies.
We have to ask why.

In March a report revealed that since it was founded in 2006, NE's budget has been slashed by 44%, drastically reducing its ability to function. Subsequently a further 14% cut has been implemented.

In summary NE, the custodian of the wild natural environment in England, is financially crippled, ethically compromised, and rudderless.

Scottish Natural Heritage

Is not fit for purpose. A similarly grim scenario. This summer's fiasco surrounding the Strathbraan Raven cull – which SNH sanctioned and which its own investigation described as 'completely inadequate' in a damning report into its validity – highlights such bad decision-making that unless it can be explained as wholesale incompetence, there must be something else going on.

Thankfully, the report has plumped for the former explanation. But the 'major flaws' discovered in the Raven cull extend throughout this agency and its practices, and many believe that SNH 'should be completely re-designed rather than (modified).' It has refused to properly promote the re-introduction of the Beaver nationally, failed to protect those Beavers on the Tay which continue to be inhumanely shot and burned, has done nothing to address the on-going excesses of Mountain Hare killing on grouse moors, and like its English counterpart has ineffectually presided over a continual decline in the wildlife under its jurisdiction. The reasons are as above: serious lack of investment, ineffective management, and demoralised staff.

Natural Resources Wales

I'm afraid I have little knowledge as to the health and efficacy of Natural Resources Wales, but I know a man who does. Here is what broadcaster and campaigner Iolo Williams has to say:

'A recent internal survey showed that only 14% of NRW staff are happy with the way they are managed. The Wales Audit Office recently queried NRW's accounts for the third year in a row. The chairwoman, Diane McCrea resigned in July following the scandal of under-selling timber to a single private buyer.

NRW have constantly blocked attempts to reintroduce beavers to Wales despite the full support of all the major conservation organisations. Morale is rock-bottom with conservation staff leaving en masse and not being replaced. There have been dozens of major slurry pollution incidents on once-famous salmon and sea trout rivers in West Wales over the past twelve months, killing tens of thousands of fish. There have been NO prosecutions by NRW relating to any of these incidents.

Fundamentally, NRW needs individuals in the senior management team and on its board that are committed to our environment and its wildlife. At present, there is no respected conservationist in senior management. This would help tackle its woeful record on nature conservation and help solve its staff dissatisfaction difficulties. It also needs to overhaul Glastir, its completely ineffective agri-environment scheme. At present, its success is measured in terms of percentage of land in the scheme, as opposed to measured increases in target species. The prescriptions and monitoring are woeful.'

Northern Ireland

I'm afraid I know nothing of the situation in Northern Ireland, nor anyone I could trust to provide an objective report.

Perhaps the most tragic aspect of these agencies' declines is the wholesale loss of trust between them and the wider conservation movement, which continues to grow and gain widespread attention. Few within the conservation sector now believe that NE, SNH and NRW are properly independent or impartial. And the commendable staff who remain have lost their voices – they should be able to publicly speak their minds to governments.

So what can be done to fix these agencies?

Firstly can, or should, we fix these agencies? As long as they are funded by governments can they be secure and truly independent? I believe instead that they need very significant, ring-fenced, apolitically influenced long-term public funding, as is the case with **LIFE UK**. Indeed – **LIFE UK** should assume and eclipse their roles.

However, in the short term, a major injection of public money, a complete re-structuring of leadership, management and the boards to include properly qualified and independent ecologists, investment in staff training and retention, and complete transparency and access to data would perhaps reinstate some impartial influence and re-engender some respect in these agencies. In regard to NE therefore, we are asking for nothing that the House of Lords didn't already request in March of this year.

The Future of the Welsh Uplands

‘Past financial, scientific and cultural processes have created the upland landscapes of Wales. Despite over 70 years of government financial inducement to plough, drain, re-seed, heavily stock or blanket with alien conifers in an ill-considered and often hopeless pursuit of profit, and being deluged in acidic pollutants since the start of the industrial revolution, the Welsh upland landscapes, often without the benefit of any landscape protection designations, still retain a quality the envy of much of the world.

“Deep Wales” has in its beauty the ability to attract a young creative class of entrepreneurs to bring new financial prosperity to its towns and to refresh and nourish the social and psychological needs of our now mostly urbanised Western European population. Life in the countryside has been dependant for over 70 years on government subsidy payments. No post Brexit scenario paints a profitable future for sheep – its current mainstay. Without support payments land prices will decline, encouraging blanket afforestation with conifers. Rewilding through abandonment in a landscape now dominated by acid-rain-loving grasses is equally unattractive and the loss of an important farm-based culture is entirely undesirable.

If a new young and dynamic land managing community can be created, willing to sell goods we all want – high quality food and timber from a rich and biodiverse land we can relate to, producing clean air and drinking water, with a reduced flood-risk downstream and all in a landscape to refresh us and be proud of, finding the finances to fund this vision should be easy.’

Ray Woods, Botanist

Ministry of Upland Ecology

Dr Mark Avery, Author and Environmental Campaigner

Our uplands, places over 1000 feet in altitude, are loved for their landscapes, dark night skies and peace and quiet. Their harsh climates and poor soils make them difficult places to grow crops so they are frequently given over to sheep, grouse or commercial forestry plantations. Only through distortions of the means of production through public intervention (in the case of the Forestry Commission), public subsidy (in the cases of grouse shooting, sheep production and forestry) or wildlife crime (grouse shooting) can nominal profits be made.

The true costs of these three upland land uses include lost wildlife, increased carbon emissions, increased flood risks, damaged landscapes and polluted watercourses. When loss of ecosystem services are taken into account the current system of public support to upland land uses looks ecologically unsound and also unfair to the taxpayer. We have supported land uses which flood our homes, remove our wildlife and increase our water bills – how daft is that?

Leaving the European Union allows, indeed necessitates, a radical rethink of how taxpayers' money is spent: our guiding principle will be 'Public money for public goods'.

The uplands are perfect places to deliver public services such as restored wildlife, cleaner water, increased carbon storage, more recreational access and reduced flood risk. We will work with the grain of nature instead of against it and that means a move towards rewilded landscapes which have more natural woodland spreading onto the hilltops from the river valleys and undamaged blanket bogs storing carbon and water on the tops of the hills.

Such habitats are cheap to maintain and deliver greater benefits than so-called traditional land uses. They will also be rich in wildlife and will be places where extirpated wildlife such as European Beavers, Pine Martens and Lynx can be reintroduced. They will be true national assets where there is space for many recreational activities including hiking, cycling, fishing, some hunting of game, and wildlife tourism. This aligns the economic value of the uplands with their ecological value. It is a win for the public purse and for the public's quality of life.

Capital land values will fall in the uplands with the removal of subsidies and a clamp down on wildlife crime (which underpins the profits of grouse shooting) so government will be able to acquire land at below current, falsely-inflated, prices. Then, through public ownership, landscape-scale regeneration of upland ecosystems can proceed at a rapid pace.

Proposals

Downgrade all National Parks to AONBs – they are not yet worthy of the name of National Park – and then call all these areas Upland Nature Areas (UNAs)

Withdraw subsidies from farming and forestry in all UNAs

Use money saved by subsidy withdrawal for a land purchase fund so that more and more upland land is publicly owned

Maintain voluntary grant schemes for environmental action on upland farms but only on the basis that each payment is a down-payment on eventual purchase by the taxpayer

Nationalise water companies so that their land can be managed for multiple benefits including cheaper water bills, reduced flood risk and more wildlife

Create a new government agency, perhaps an offshoot of the Forestry Commission, to acquire and manage land for this new future

As rapidly as possible replace the Forestry Commission's exotic plantations in UNAs with native woodlands and open spaces delivering ecosystem services

Plan for new infrastructure to facilitate growth of recreation-based businesses – public transport links, improved internet connectivity, etc

Use the uplands as test beds for reintroduction of keystone and charismatic species such as Beavers, Golden Eagles and Lynx to boost wildlife tourism

Artificially maintain small areas of overgrazed sheep walk in the Lake District and driven grouse shooting in the North York Moors as lessons to future generations of how wildlife-poor upland areas once were.

‘There is almost nowhere in Britain where you can escape from extreme human impacts. To experience wild nature, you have to go abroad.’

Ministry of Rewilding

George Monbiot
Environmental campaigner, columnist and author

There is almost nowhere in Britain where you can escape from extreme human impacts. To experience wild nature, you must go abroad.

This is not because our population is so high. The 66 million people of Britain are confined to 7% of its land area. Parts of this country, such as the Scottish Highlands and the Cambrian Mountains, have some of the lowest population densities in the temperate world. It is because our land and seas have been systematically trashed.

In the infertile uplands, where you might expect to find wild and thriving ecosystems, sheep farming has scoured the land of almost all wildlife. By nibbling out tree seedlings and other edible plants, sheep create a wet desert. Upland sheep make a loss: we pay for this destruction through public subsidies. And the few places not wrecked by sheep are ravaged for grouse shooting estates or deer-stalking. Our upland national parks offer no protection from these three forms of destruction: all of them are ecological disaster zones.

Commercial fishing is excluded from just 0.01% of our marine area: three pocket handkerchiefs of sea, amounting to 7.6 km². Most of our marine reserves are nothing more than paper parks.

It needn’t be like this. We should rewild at least 10% of our uplands. We should re-establish some of the magnificent native species that once lived in this country, including beavers, boar, lynx, cranes, storks, white-tailed eagles and pelicans. We should help species now confined to a few tiny enclaves, such as wild cats, pine martens, capercaillies, goshawks, hen harriers and golden eagles, to spread across the United Kingdom.

We should rewild river corridors, creating buffer zones that provide continuous habitat while preventing pollution from entering the water, stopping floods and building ecological connections between the countryside and our cities. This will let wonderful wild animals, such as otters and dippers, move between the two.

We should declare 30% of the UK’s seas off-limits to commercial fishing and other forms of extractive industry. This will allow fish and crustaceans to breed and reach large sizes, before spilling over into surrounding waters. When fish numbers recover, we expect humpback whales to resume their historical migrations up the Irish Sea, and bluefin tuna, fin and sperm whales once more to follow the herring around our northern and eastern coasts.

Britain will again become a magnificent place in which to see wildlife. Ecotourism and associated businesses will boost jobs and income. The catastrophic decline of our ecosystems will be reversed. So, how can we make this happen?

Proposals

Stop using public money to fund ecological destruction

Use a significant sum of the money we now spend on farm subsidies for restoring ecosystems and reintroducing missing wildlife

Set a target of rewilding at least 10% of our uplands to begin with immediate effect

Create a list of species to be re-established in the UK, a meaningful timetable to achieve it and significant public and private funding to pay for it

Make our national parks worthy of the name, by allowing habitats to recover and wildlife to return

Ban driven grouse shooting

Set a maximum population density for deer on stalking estates, which will allow trees to grow once more

Use natural flood management, including beavers, to hold back the water that falls on our hills, ensuring a safe and steady flow down our rivers

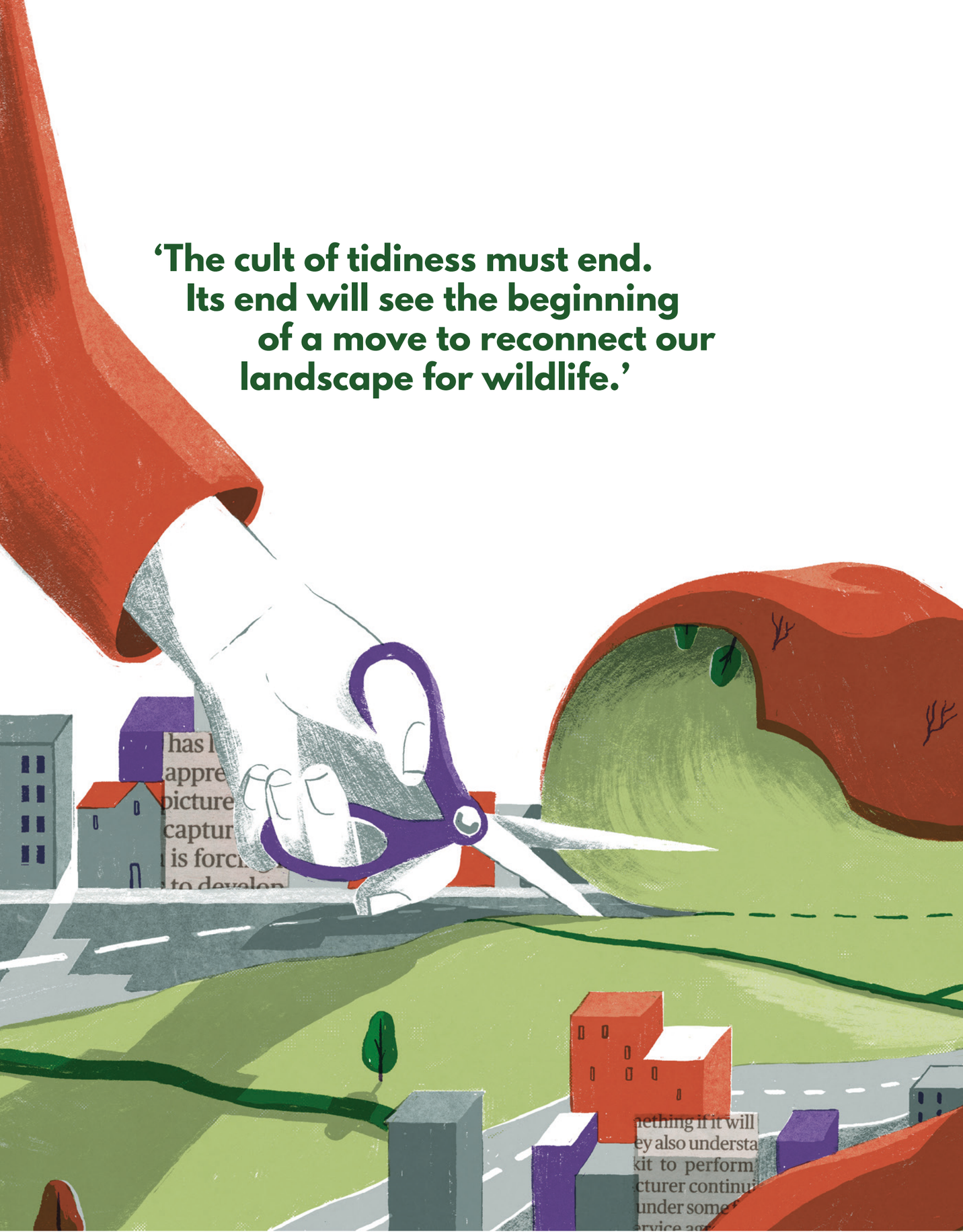
Create buffer zones between farmland and rivers, to block pollution and floodwater and establish significant wildlife corridors

Rewild yourself! Discover the thrill of immersing yourself in a recovering ecosystem

“We’re living in exciting times. Rewilding has shown how we can reverse wildlife declines and how ecosystems can be rebuilt. Here, at Knepp, on land that was intensively farmed for 60 years, with no thought for the soil or future generations, we now have thriving populations of turtle doves, nightingales and purple emperor butterflies. We have peregrine falcons and long-eared owls. All these and many more have found us in less than 20 years. It just shows how nature will bounce back – if only we let it. We’ve got to encourage our politicians and policy-makers to focus on the environment – our life-support system. This has to be the future – finding ways to allow space for nature, rebuilding our soils for sustainable farming, restoring habitats for wildlife and recovering species we have lost, creating wild places where we can live and breathe and hear again: providing a future that is richer for us all.”

Isabella Tree and Charlie Burrell
Knepp Wildland Project

‘The cult of tidiness must end. Its end will see the beginning of a move to reconnect our landscape for wildlife.’



Ministry of Hedgerows and Verges

Hugh Warwick
Author and Ecologist

The cult of tidiness must end. Its end will see the beginning of a move to reconnect our landscape for wildlife.

The cult of tidiness forces land managers to destroy wildlife habitats and wildlife corridors; hedges are flailed to within an inch of their lives, often just before berries burst into life, or when birds are nesting. Road verges are stripped of floral abundance because the rhythms of a contractor have precedence over the rhythms of nature. Trees along a railway are chipped to prevent their leaves causing delay.

The lines that these habitats create are crucial components of efforts to overcome one of the most serious issues facing wildlife – habitat fragmentation. Chopping up the landscape into ever-smaller patches leads to piecemeal extinctions as populations become unviable. And these barriers can come in many different forms – the most obvious, such as busy roads, prevent animals from moving through the landscape, either because they are killed or too scared. Back in 1960 the Road Death Enquiry estimated that 2.5 million birds are killed annually on the roads in the UK, a number which will have increased given the increase in both traffic and released gamebirds.

Other barriers are more subtle – hedge-free fields of oilseed rape prevent much wildlife moving through them due to the hostility of the agrochemically-saturated land and the absence of routes that might act as highways.

This fragmentation must be addressed by using an asset already in place. Our landscape is crossed by a linescape – a series of linear features that, if managed properly, can provide essential corridors for wildlife.

Hedgerows are often what we think of when we turn our minds to the British countryside. They are fabulously biodiverse habitats: a recent survey showed that just 85 metres of a Devon hedge had over 2,000 different species. The value of these hedgerows is elevated by the 'standard' trees that emerge from them. Unfortunately, these trees are alarmingly similar in age and when they die or are removed, flailing prevents new trees replacing them. Tree-lines and standard trees are vital in urban habitats too. The management of these life-giving presences must be ecologically considerate.

Hedgerows are wildlife arteries. But they are not alone in providing wildlife with a way to move through the landscape. Tragically, given the parlous state of our farmed landscape, the verges of the road network have also become a valuable resource for wildlife: the 'unofficial countryside', in Richard Mabey's famous phrase. Plantlife have revealed that they are now home to over 700 species of flowering plant and that in turn have become important corridors for invertebrates and larders for vertebrates.

So how can we reinvigorate our linescapes and create wild lines for wildlife?

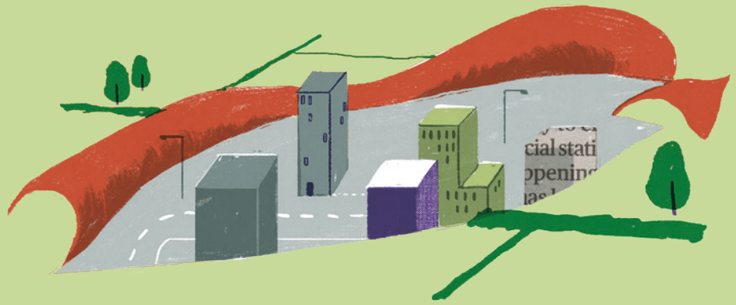
Proposals

Replant hedgerows: we need 300,000km more to get us back to where we were 60 years ago

60% of hedgerows currently not in 'favourable condition' should be repaired by plugging gaps

Hedgerow trees to be celebrated and replenished – they are almost uniform in age and are not being replaced as they die

Mandatory introduction of hedgerow management practices to eliminate 'flailed stumps' and promote ecological value, to include rotational cutting and avoidance of fruiting and bird nesting periods



Expand the use of mechanical hedge-laying techniques – quick and crude but cheaper and effective for wildlife

Where no safety is compromised ban the cutting of verges while in flower

Councils to be supported in investing in cutting machinery to collect trimmings from verge maintenance – which in turn can become a resource for energy generation

Mandatory ecological management of the verges of our road, rail and other networks to maximise wildlife corridors through the landscape

Significant urban trees to be named and owned by primary school classes in perpetuity to form lifelong bonds between people and trees

Street trees' value in terms of environmental services should be considered first in all street tree management or replacement decisions

‘If you’ve not been paying attention to the rich and beautiful British spring birdsong in the early morning countryside, you’re already too late.

It’s gone.

Tucked up in tractor cabs and wearing ear protectors as they spray the fields, our farmers haven’t noticed the loss of three-quarters of skylarks in a generation.

The supermarket buyers don’t really care that half the yellowhammers that delighted Hardy have joined him in the heavens. The pesticide salesmen and their bosses have controlled the peewits that once thundered across the fields.

The curlews and the Snipe that “curlied” and winnowed through our landscape, they are gone and the clockwork Grey Partridge, and the Quail who can no longer “wets his lips” in the long grasses are going.

The Cuckoo will be next, followed by Spotted Flycatchers, Nightingales and the Wood Warbler. Silent Springs are coming to our countryside, if not next year, then the year after.’

Mark Constantine, The Sound Approach

Ministry of Trees

Jill Butler
Ancient Tree Specialist

Trees and shrubs as individuals, in groups or woods, make our countryside, towns and cities beautiful and give us free national spectacles – blackthorn spring, a bluebell haze, autumn colour. They refresh the air we breathe, improve soil health, play host to multitudes of other species and provide innumerable other benefits. They have been painted, photographed, filmed, written and sung about by artists, writers, poets and singers down the centuries. Every aspect of our lives is touched; they add great pleasure to our lives and are central to our physical and mental well-being.

The UK has a historic treescape that is still rich in ancient trees and old-growth – such as Caledonian pine forest, Sherwood Forest and other mediaeval woods, parks and commons. These are habitats full of old, open grown trees, with an associated rich and unique wildlife not found elsewhere. Few trees make it to old age and the species that are reliant on them are also rare and becoming ever more threatened. According to the IUCN almost 20% of wood-decay beetles are at risk of extinction due to ongoing decline in large veteran trees across Europe. Older, larger, open grown trees are generally the most loved and often associated with particular places, people, or historic events, but despite being the trees that serve us most and longest, they are the most vulnerable.

Why is that? Is it that they appear to be common and found everywhere, eternal, unchanging, just part of the background to our lives and taken for granted until a favourite tree or woodland is threatened directly by development or by disease? It needs everyone to step up and do more – individuals, owners of trees and woods, NGOs and government.

From earliest times, trees were highly valued for practical reasons, for pleasure and often as statements of status. Monarchs surveyed the land to understand the extent and condition of this resource and passed laws to protect trees and forests and their wildlife in their own and national interest. Modern regulation – felling licenses, tree preservation orders, conservation areas, wildlife acts and associated policies mostly do the same today. However, valuable trees and woods can still slip through the net and are increasingly doing so through the lack of resources and skills to manage them effectively. There is a lack of political will to apply regulation and monitor where regulation is failing.

Safeguarding important trees and shrubs in the 21st century cries out for new measures aimed at celebrating their value to society, reducing conflict and supporting their guardians. Trees are not just nice; they are essential to all of us.

Proposals

Every tree counts! No avoidable loss of trees other than those cultivated as a crop. The older the tree (relative to its species or wood) the greater its value

National and local government must have sufficient tree specialists to safeguard, restore and expand treescapes by supporting owners and applying regulations wisely and robustly

Make sure deterrents to prevent damage to, or loss of trees are effective and proportionate

Give national status and recognition to ancient and other trees of special interest, ancient woodland, wood-pasture and parkland for their historic, landscape, wildlife and other ecosystem benefits

Ensure trees and shrubs and tree-rich habitats are restored and looked after properly through incentivising good practice – public money for public goods for tree benefits in urban as well as rural environments

Clean-up air, soils and water and prevent pollution – healthy environments are essential for trees to thrive, combat disease and live long lives

Identify no-dig Root Protection Areas (RPAs) around valuable trees and protect them

Create new wood pastures or parkland especially where they will extend existing mediaeval forests, deer parks or ancient wood pastures

Establish new open grown trees to be the ancients of the future, especially pollards, to ensure continuity of this distinctive heritage feature of the countryside

Re-wild trees – allow trees and shrubs to establish by themselves naturally in grazed, landscape scale areas

Ministry of Urban Spaces

Kate Bradbury, Gardener & Author

Urban areas can be some of the most biologically diverse habitats in the country. Gardens and parks with their lawns, shrubs and flowering plants provide food and shelter for a huge array of wildlife. And yet these spaces are disappearing from our towns and cities.

In a report published in 2016, the Royal Horticultural Society said the percentage of front gardens lost to paving, concrete or gravel had risen to 24 per cent, from just 8 per cent in 2005. The results suggested that more than 4.5 million of Great Britain's front gardens were entirely paved, while 7.2 million were mostly paved.

Another report, published by London Wildlife Trust in 2011, compared aerial surveys of London taken in 1998 and 2006. It found that domestic gardens made up nearly 24 per cent of the London's total area, but that in those eight years nearly two thirds of its front gardens had been covered with hard surfaces and that back gardens had shrunk due to the popularity of garden offices. An area of vegetated garden equivalent to 21 times the size of Hyde park was torn up between 1998 and 2006 and a further 14 Hyde Parks worth of gardens have been destroyed since 2011.

Space is at a premium in urban areas. Front gardens are paved to park cars, while back gardens are given over to garden offices, low-maintenance paving, decking and fake lawns. Some are being destroyed completely as they are 'grabbed' by developers to build new houses. Remaining gardens are often fenced so wildlife, such as hedgehogs and amphibians, cannot pass through them.

In a similarly bleak trend, our homes, once used by swifts, starlings and house sparrows, are less bird-friendly as holes are bricked up and eaves are sealed. New-builds provide little or no nesting opportunities. Increasingly, councils are forced to sell parks to developers to fund basic services. Buildings are erected or updated and their outdoor spaces paved for ease of use or maintenance. We're paving over our towns and cities; we're paving over our wildlife.

The decline of many wildlife species is pronounced in urban areas as butterflies vanish from our towns and cities, and birds suffer greater losses in urban areas. Another recent survey by the British Trust for Ornithology found that London's house sparrow populations had decreased by 60%. We have to take action to stop this creeping grey tide engulfing our cities. We need legislation to make our cities home to nature as well as to us.

Proposals

Planning permission to be required for the paving, decking and fake-turfing of more than 10 percent of any garden

Hedgehog holes to be made compulsory in all new fencing

Swift/sparrow/starling boxes to be built in all new-build homes, with incentives for retro-fitting nest boxes on older properties

Native shrubs and trees to be mandatory in municipal planting schemes and new-build gardens to increase insect abundance

New incentives for home-composting such as free compost bins or reduced council tax bills

Significant new public funding to keep parks and urban green spaces open

Wildlife ponds to be created in every industrial estate and all municipal parks

All public green spaces and parks to have a minimum of 10% given over to wildflower meadows

All new-build estates to have a communal pond and wildlife friendly communal 'green spaces' to be maintained by development or management company

Areas earmarked for future development to be used as temporary 'pop-up' habitats typically sown with quick-growing annual flower mixes to provide food for pollinators

Pets and Wildlife

Many of us love our pets – but it's time to stop denying that some of them can have a serious negative impact on wildlife.

Cats

According to research our cats kill 55 million songbirds every year in the UK and predate a total of 220 million other animals, including mammals, reptiles, amphibians and insects. Given the great pressures this wildlife is under elsewhere these losses are almost certainly now significant.

It's not the cat's fault! And there are easy steps to take to reduce this toll. We must ask their owners to take responsibility, and here's how…

Keep cats in at night – this can reduce overall predation by up to 50%
Unless you plan to breed your pets, have them neutered

It should be mandatory that all free-roaming cats are fitted with a collar and bell. This can reduce bird predation by 50%. That's 27 million more birds in our gardens every year.

Dogs

The terrible impact that dogs can have on farm stock is mostly well known, but many owners are unaware of the disturbance that their best friends exact on the c. 47% of birds in the UK which nest on or near the ground. Roaming dogs can flush birds from their nests, leaving the eggs and young susceptible to chilling or vulnerable to predators. In areas popular with dog walkers this will rapidly lead to desertion and breeding failure. In many places dogs are required to be 'under control', but the ambiguous nature of this definition or its complete disregard urgently needs addressing – and here's how.

In areas designated as nature reserves, dogs – with the exception of assistance dogs – to be banned. On areas or footpaths adjacent to nature reserves, dogs should be on their leads at all times.

In National Parks and other non-nature reserve protected areas, zones sensitive to disturbance should be identified. Between March 1st and July 31st, dogs should be excluded or must be on leads.

In natural spaces with nature conservation interests, dog-walking hotspots should be established to attract owners away from wildlife sensitive areas by offering greatly improved facilities, including: properly maintained free car parking, covered areas, grey-water washing facilities for dogs, regularly serviced dog-waste bins, trails with canine exercise props, pop-up veterinary advice centres and proper dog-friendly cafes.

Ministry of Social Inclusion and Access to Nature

Dr Amy-Jane Beer
Biologist and Nature Writer

Nature is a human need – central to the quality of our most fundamental physiological requirements (water, air, food), as well as our physical, mental and emotional wellbeing. Thus access to diverse nature should be recognised as a human right. Allied to this right is a right to fight for nature and express an opinion about it. And if the naturally diverse opinions of a society are to be considered – representation matters.

You don't have to be a white, able-bodied, middle-aged, middle-class, cis-male to write about nature, photograph it, present it on TV, or discuss it intelligently in a public forum. But you wouldn't necessarily know that from media output, or from the speaker line-ups at many high-profile wildlife events. The fact is that while women are catching up after centuries of overt discrimination, pushing forward wildlife research and practical conservation, participating in citizen science and campaigning for environmental causes with passion and courage, they are still widely, woefully, embarrassingly and inexcusably underrepresented in the public face of the wildlife sector.

There's something else a majority of women from all social backgrounds do for most of their lives. Almost three-quarters now do it alongside their paid jobs. Yet the wildlife community has overlooked a group responsible for most day-to-day consumer decisions and for shaping the world view of future generations. Is it possible, somehow, that we have forgotten mothers? Most don't have much time for recreational wildlife-watching, but that doesn't mean they don't care, or that they won't fight for the future their children are growing into.

Making women and men of all social backgrounds a proportionate part of the wildlife movement isn't political correctness, it's a matter of necessity. We need diversity. We need the engagement of stay-at-home and working parents of all genders, just as much as we need professors and professional commentators. We need wildlife-loving teachers, imams and local councillors, business leaders and farmers, allotment-tending retirees and streetwise teens; we need environmentally aware shop and office workers, call centre operatives, doctors, accountants, engineers and lawyers. We need their perspective, their energy, their compassion, their voices and their votes.

So let's look closely and critically at conservation's public face. We need to recognise and expand its constituency, bring people from all walks of life to nature, find new and more effective ways of sharing its message, and ensure that when someone chooses to engage with the wildlife and conservation community, they feel respected, represented and welcome, whoever they are.

Proposals

Recognise access to diverse nature as a human right, and reinstate that access to all members of society

Voluntary full- or part-time eco-community service for all, with a small increment on benefit payments (from universal credit to pensions) in return for hours worked on local wildlife conservation or environmental schemes

Where wild areas are open to the public, ensure all people are able to enjoy them, by providing adequate accessibility infrastructure

Make reserves and natural areas more welcome to visitors with less visible ability differences – for example autism-friendly areas, noisy sessions, baby-changing facilities, Braille and signed guides

NHS to work with environmental organisations to offer eco-prescriptions such as shinrin yoku (forest bathing) –

prescribed in Japan for conditions as diverse as anxiety depression, obesity, heart disease and diabetes

Create a network of neighbourhood nature ambassadors to inform, inspire and encourage social integration in their communities and serve as a connection with nationwide conservation

Subsidised childcare at nature reserves and "green days" for mothers and babies at Sure Start centres to facilitate access to nature for parents of young children

Recruit, educate and inspire the next generation with all schools having a Wild Thought for the Day – based on real experiences from outdoor trips and outdoor learning

Ensure there is a 50:50 gender balance among contributors to nature and environment discussion panels, wildlife TV shows and other forms of environmental journalism

Zero tolerance for sexist or racist trolling in wildlife social media discussions – perpetrators should be outed and penalised

What we can all do

It's easy to imagine that 'they' will fix the environment. But 'they' won't, whoever 'they' are. **We** need to do it – **me** and **you**. Together we are stronger. Together we can make a difference.

Identify your local green space (park, roadside verges, school field, cemetery, allotment, farmer's field, golf course, industrial park, derelict land). Find out who manages it. Offer to help them, join the committee, volunteer, persuade them to leave wild areas. Steps to help nature are simple, cheap, and often save money. No green piece of Britain exists today without local people having taken local action. Join this noble tradition!

Introduce a child to nature. Let them touch and feel it. Take them for a walk and give them the freedom to explore, climb a tree, catch a bug, bring a feather home. Do it once. Do it again.

Visit a farm. Learn about where our food comes from, how it is grown and the pressures on British farmers. Buy local food grown with care. Britain's wildlife won't be saved if we don't support good farmers.

Urban trees are invaluable for everyone: politely liaise with your local council to protect existing trees and plant additional ones for the future.

If you live in a house or flat, install swift, sparrow or bat boxes by the eaves.

If you have a garden, stop using pesticides – weedkillers, ant sprays, slug pellets. Liberate your lawn, let some grass grow long, leave piles of sticks in corners for invertebrates, sow native wild flowers for pollinators, feed garden birds, erect bee and bird boxes. Dig a pond – even a washing-up bowl-sized pond will boost biodiversity.

Connect with nature through what you eat. Grow some food – rocket and tomatoes in window boxes; cucumbers, runner beans, raspberries, blackberries. Home-grown tastes amazing.

If you are a member of a conservation charity communicate with them. Don't just pay your membership – volunteer if you can. Or tell them what you think they do well and where they should try harder. You are a shareholder in conservation.

Join in with social media campaigns, sign petitions, explore new ideas, find your voice. Numbers count – be counted.

Visit a green space you've never been to before. Look around, listen, breathe deeply. Feel a connection with nature. Share its beauty with others. Know its real value in your life.

Ministry of Diversity in Nature and Conservation

Mya-Rose Craig
President, Black2Nature

Why is it that despite rural roots and a natural, human love for nature, many people claim that visible minority ethnic (VME) people are not interested?

One issue is the mono-ethnic view of how we should engage with nature which excludes VME experiences and thus alienates them. Many in these communities view themselves as urbanites who do not belong in the countryside and worry about visiting this landscape through fear of prejudice and hate crime. Other barriers identified by VME experts include the countryside being elitist, the lack of public transport and a cultural fear of dogs.

Another reason the environmental sector struggles to engage VME people is due to the lack of diversity of its staff. Only 0.6% of people in the environmental sector are VME, making it the second worst employer in the UK in this respect. These shockingly low numbers mean that there are virtually no staff to whom VME people can relate or be inspired by. It is also essential that we reach out and connect with communities in their own spaces, as 83% of the UK live in cities and a disproportionate number of VME people live in inner-city areas.

The environmental sector must step outside of the echo chamber of agreement and communicate with everyone. Diversity brings a wider range of people to organisations and leads to improved performance. Diversity must be at the heart of their strategy. To protect the environment is to leverage the input and contribution of as many people as possible.

Some argue that the issue is not one of ethnicity but of poverty. However, research has been published which shows that 65% children from lower socio-economic groups (C & D) interact with nature regularly, but this drops to 56% for VME children no matter their socioeconomic status. Clearly ethnicity has a larger impact than poverty. Education is also a problem. Parents of VME children who are interested in an environmental career may not be supportive due to a lack of familiarity with the sector. Also, many environmental jobs require unpaid internships, contacts, and access to the countryside, which create barriers.

There are also opportunities in HR, IT and Finance, for instance, within the environmental sector which could be filled by VME people, especially with diverse cities within commuting distance.

However, change is coming with VME people climbing mountains for charity, Rehan Siddiqui being British Mountaineering Council president, Mohammed Saddiq being Bristol Green Capital Partnership Chair and nature TV having both Liz Bonnin and Anita Rani. The National Trust are leading with their 2017 staff conference on diversity and events attracting 3,000 VME people.

Proposals

Acknowledge and address the low visible minority ethnic representation across the environmental sector

The sector to obtain advice from VME Race experts and formulate a diversity plan suitable for all organisations including making nature relevant to the VME community by engaging them with nature in a way that they can relate to

Environmental organisations to obtain advice on unconscious bias and how they can increase visible minority ethnic representation, publishing their strategies and progress in annual reports

Environmental organisations to adopt excellent equal opportunities and recruitment policies including mandatory diversity training for all Trustees, staff and volunteers

The sector to monitor, measure and publish diversity data for Trustees, employees, volunteers, applicants and members

Online and printed environmental media to be diverse in content with images reflective of UK society and more VME role models visible on nature TV programmes

The government to commission research into the barriers to VME going out into natural spaces, what can be done to overcome the hurdles and take action to make change

The government to ensure regular cheap public transport from inner cities to the countryside especially National Parks and Nature Reserves

Government departments to provide mandatory information evenings targeting VME secondary age children and their parents, explaining careers in the sector and encouraging an interest in relevant courses

Universities to mentor and support VME students taking nature-related degrees in order to combat racism and isolation

Ministry of Young People in Nature

Bella Lack & Georgia Locock
School Pupil and Student

Aside from our burgeoning population, the primal reason for almost all ecological declines can be attributed to our estrangement from the natural world.

Ritu Ghatourey said:

“Every child is born a naturalist. (Their) eyes are, by nature, open to the glories of the stars, the beauty of the flowers, and the mystery of life.”

This quote captures the innate sense of wonder that all children have about the natural world. You can see it in their eyes as they stroke an earthworm or watch a colony of ants diligently constructing their nest. However, those same eyes are now being drawn away and trained upon objects that provide instant, superficial gratification. We have seen this in our generation – their youthful admiration of wildlife leaching out of them until no fondness for nature remains.

The ideas, views and opinions of our generation matter more than anyone else’s. But paradoxically, those of us who stand up to voice our concerns find it isn’t easy. We struggle to make our voices heard, face enormous difficulties in finding a career in this sector, and feel massively undervalued. This situation is exacerbated by nature and wildlife being restricted to isolated areas. Remote rural nature reserves are completely inaccessible for many young people. Nature should not be something confined to a reserve which we occasionally visit as a special treat. It must be allowed to flourish in school grounds, gardens and towns.

Social media and new technologies are often blamed for our generation’s disconnection from nature - but all is not lost. In many instances, these technologies and platforms enable us to engage instantaneously with huge and important communities to highlight the beauty and importance of the natural world. For students in their final years at school or in higher education social media is particularly influential. However, nothing is better than the real thing, and many higher education institutes are ideally placed to reconnect

young people with nature through their abundant green spaces. These leafy campuses should be compulsorily used to celebrate the importance of nature with this age group.

David Attenborough said: “No one will protect what they don’t care about; and no one will care about what they have never experienced.” It is crucial that young people are allowed to explore if we do not want them to exploit. They must be allowed to discover if we do not want them to disregard. We must cure this epidemic of Nature Deficit Disorder in young people.

Proposals

Every urban area to host an annual ‘Borough Bioblitz’, where children conduct audits of their local wildlife, assessing ecological health of an area and how to improve it

‘Wild Zones’ – outdoor teaching areas – in every school, with government funding to support ponds, flowers and trees

PSHE or wellbeing classes to include a section on the importance of regular contact with nature to benefit physical and mental health

Every primary school in Britain to be twinned long-term with a farm as a means of ‘growing’ farming into children’s lives, and also for them to shape farming in return.

Pre-downloaded educational apps on school technology to include at least two nature/ conservation apps

A national campaign to promote the importance of nature for mental health, specifically focused on how it can benefit young people

A nature conservation work placement programme offering 5,000 annual placements to inner city pupils by large NGOs (RSPB, National Trust etc)

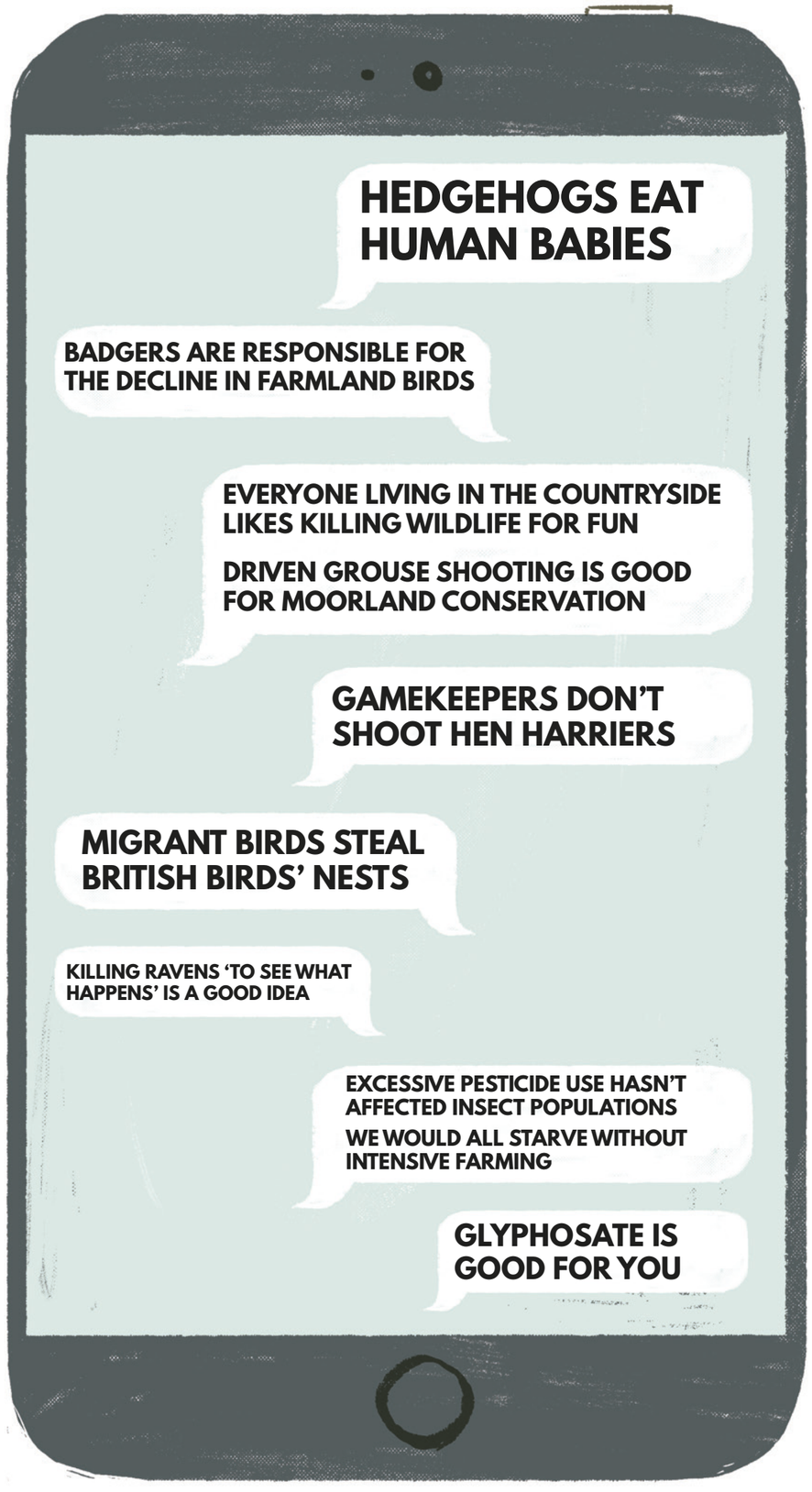
A government-funded nature apprenticeship scheme to widen access to conservation jobs, with one trainee warden for every national nature reserve

An annual competition celebrating the best young nature vloggers and bloggers on social media, backed by BBC channels and magazines

The creation of a Young Person’s Nature Advisory Panel for the UK within government, giving young people a long-term and powerful voice in environmental decision-making

BUTTERFLIES GIVE YOU CANCER

DON'T BELIEVE FAKE NEWS.



Ministry of Wildlife Overseas

Ruth Peacey
Campaigner

For generations migration was observed through the passing of seasons and little was known about species when they moved beyond our surrounding landscapes. We saw "our" birds and looked at "our" whales, unaware that for the rest of the year people in other nations would encounter the same individuals with the same feeling of "ownership".

Wildlife is naive to the boundaries we have marked on maps. It sees no borders where our passports must be shown and baggage checked. Wildlife crosses such lines by air or sea, without concern for checkpoints. Animals carry out functions as required wherever they need to be, dictated by the environment, climate and food supply. Paradoxically and incompatibly we have generated a mess of different attitudes, beliefs, traditions and laws to protect these animals, or not, in almost every country.

For example, whilst we provide Countryside Stewardship payments to protect a landscape in which Turtle Doves can feed and breed in the UK (£120/ha pa to establish and manage a modified seed mix specifically for these birds in addition to payments for hedgerow protection for various breeding bird species including Turtle Doves), an estimated minimum of more than two million are legally shot each year in ten EU member states, including Greece, France and Austria. We are doing the creatures we protect a disservice whilst also wasting money and resources.

Wildlife is also transported across our constructed borders. We buy and import products made from plants, animals and other living things that we don't need to survive and, sadly, are often not valued as much in our homes as they would be if left in situ. Individual sharks will bring economic benefit for years through tourism (shark diving is estimated to be worth more than US$170million pa across just three of the most popular countries globally).

Organisations and governments already come together and discuss multi-national issues affecting wildlife, but rules are often broken and simply not enforced. "Tradition" is a word that is banded around as an excuse to exercise such violations. Tradition must have contemporary relevance to justify any persistence in practice – our streets aren't cobbled nowadays because it is better for current vehicles to run on tarmac.

We are all part of the natural world and we all share responsibility for it. We should work together to overcome differences and teach and celebrate cultural traditions which are no longer sustainable in books and art, allowing wildlife to thrive in the here and now and, ultimately, be shared by all.

Proposals

There will be no ambiguity in the laws relating to whaling. These animals should not be killed or captured by any country for any purpose, be it under the guise of science or openly for meat or entertainment

All marine protected zones should be respected by all countries so that boundaries set for fishermen in one country are not breached by those from others

Loopholes in the trade of shark fin and bushmeat to be immediately closed with a comprehensive ban on the trade in wild animal parts – be it for food or trophies

Wild animals should no longer be taken from the wild in any country for the pet trade or other human entertainment. Exemptions may be made for conservation programmes requiring captive breeding

The hunting of birds during breeding seasons and during migration to be outlawed internationally

The use of traps to capture finches, waders and other birds for the captive bird trade and/or meat to be banned worldwide immediately. Current trapping methods mean that non-target species are captured and the numbers harvested are unsustainable

An immediate moratorium placed upon the hunting of any species that is shown to be in significant decline in any part of its range (as defined by the IUCN). An animal should not be shot in one country when money is being invested in its protection in another

Conservation targets and plans should be officially coordinated internationally by the IUCN (or similar body) and become legally binding, with protection offered not just for species with declining populations but also their habitats, resting spaces and food sources

International laws to properly protect wildlife drawn up, upheld by all nations and protected by a new International Environment Court

An international student-linking programme to facilitate an understanding of wildlife and conservation issues in other countries and to develop compatible and mutual support

Ministry of Marine Conservation

Mark Carwardine
Conservationist, Broadcaster, Author

Our island nation has 32,018 kilometres of coastline, overlooking the English Channel, Celtic Sea, Irish Sea, North Sea and, of course, the open North Atlantic Ocean. We are surrounded by some of the richest seas in the world, teeming with an astonishing abundance and diversity of marine wildlife.

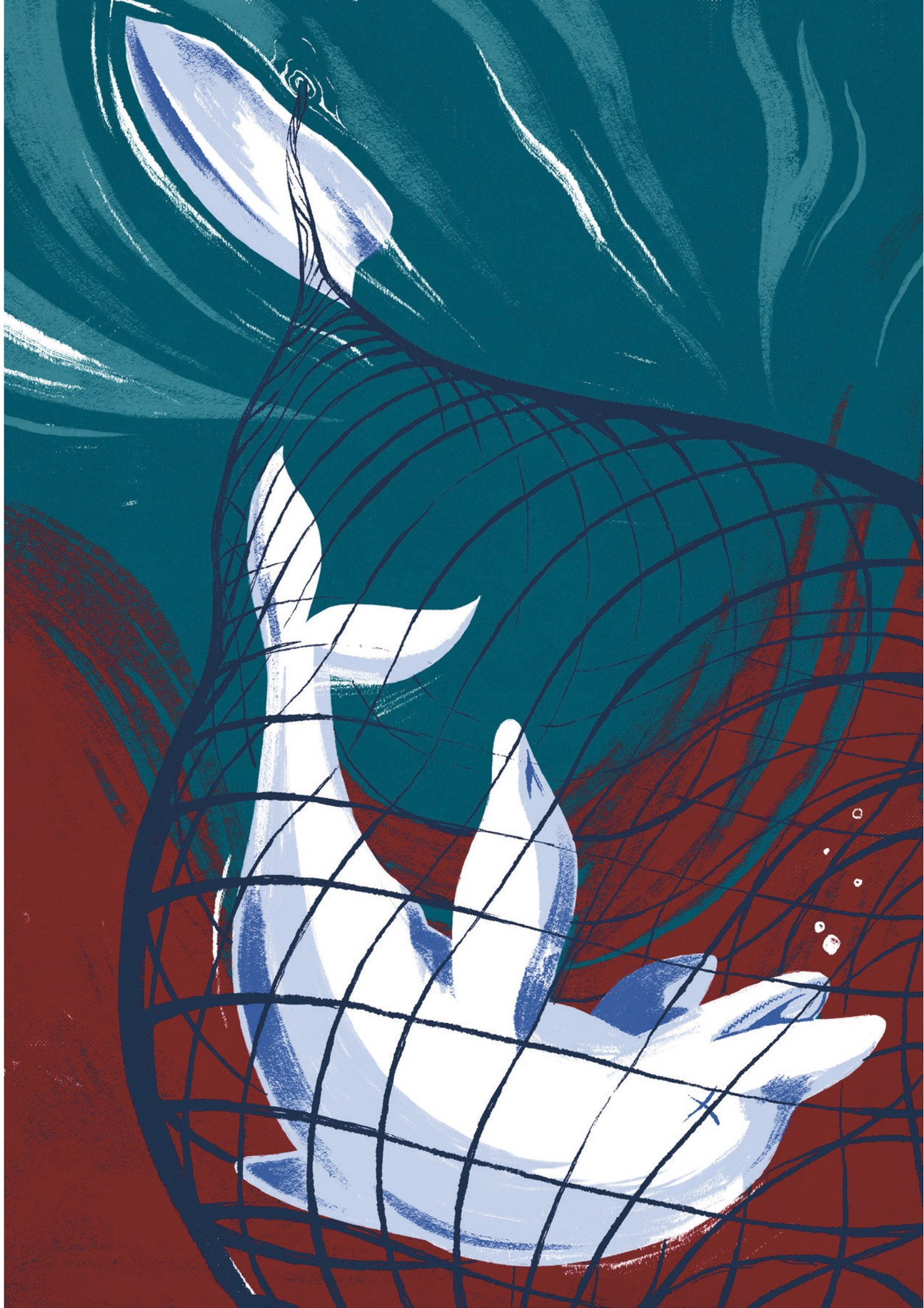
We provide a home to some eight million breeding seabirds – including globally important populations of gannets, manx shearwaters and great skuas – and have some of Europe's most important seabird colonies. A wide variety of cetaceans are seen regularly in our waters, including minke whales, killer whales, Risso's dolphins, bottlenose dolphins, and harbour porpoises, along with everything from otters and grey seals to basking sharks and white-tailed eagles. There are estimated to be 8,500 marine species living in UK seas altogether.

But we do a shockingly bad job of looking after them. We take out far too many fish and shellfish, often catching them in destructive ways that have devastating impacts on other wildlife, and we use the seas as a dumping ground for an insidious tide of plastic waste and all sorts of other pollution. Add to that threats from rising sea temperatures, oil and gas exploration/extraction, and coastal development, and it's not really surprising that we are losing our marine wildlife like never before. Many seabird populations are in steep decline, at least 1,500 dolphins and thousands of porpoises, dolphins and other cetaceans die in fishing nets around the country every year, and dredging for scallops and other shellfish results in the complete annihilation of seabed habitats.

The good news is that we can turn the tide. With proper management we can ensure that our seas are brought back to full health and remain healthy for generations to come. Marine wildlife can flourish, coastal communities can prosper, and everyone will be able to enjoy the sheer wonder of the marine world and all its remarkable wildlife.

To achieve this we must establish an ecologically coherent network of properly managed marine protected areas with 30 per cent of our seas off limits to commercial fishing, scallop-dredging and other damaging activities (currently, only 0.001 per cent is given this level of protection). This would include our entire exclusive economic zone, to 200 nautical miles from shore, allowing populations to recover in the absence of human pressure. And as fish numbers increase, they will spill out into the surrounding seas, increasing catches for local fisheries, and providing more food for seabirds, whales and all the other creatures that rely on our care and support.

We are very fortunate to have such a rich, abundant marine wildlife – we have a duty to look after it, so here's what we should do.



Proposals

Create an “ecologically coherent” network of significantly large marine reserves for all species inhabiting our seas

Make 30 per cent of our seas off-limits to commercial fishing and other damaging activities

Ensure greater transparency and accountability into the way we fish including mandatory on-board cameras to monitor what boats catch

Reform the system by which the total allowable catches for each stock are set each year, to make sure that they are based on the best and most recent available science, prioritising evidence over politics for the good of stocks and the fishing industry

Just as land managers can be rewarded for farming in a way that benefits wildlife, review and reinforce the MCS to ensure grants to fisheries only encourage exploitation of marine resources in a sustainable way

Ban scallop-dredging in UK waters and the import of shellfish similarly harvested from overseas and subsidise the establishment of a hand-dived scallop industry

Ban the production and use of plastics that cannot be recycled, in order to reduce the flow of plastic pollution into our marine environment

Set up an equivalent of the Farmland Bird Index to track the populations of significant species of marine mammals, birds and fish so that we can take conservation action before it is too late

Appoint a high profile marine environment ambassador, a ‘Sea Tsar’, to celebrate our marine wildlife and raise awareness of the issues that threaten it

Set up a significant fund to allow children, especially those from disadvantaged or urban backgrounds, to see some of our spectacular marine wildlife for themselves

Contributor Biographies

Dr Mark Avery is an author whose books include 'Inglorious: conflict in the uplands' (2015 and 2016), 'Fighting for Birds' (2012) and 'Birds and Forestry' (with R. Leslie, 1989). He is an environmental campaigner who blogs about wildlife conservation and the politics of the subject at www.markavery.info/blog. Formerly he was a scientist and Conservation Director of the RSPB. *@MarkAvery*

Patrick Barkham, educated at Cambridge University, is an acclaimed natural history author and journalist living in Norfolk. His books include 'The Butterfly Isles' (2010), 'Badgerlands' (2013), 'Coastlines' (2015) and 'Islander' (2017). He writes for The Guardian on environmental issues and is currently researching a book about children and nature. *@patrick_barkham*

Dr Amy-Jane Beer earned a PhD studying the developmental neurobiology of sea urchins at Royal Holloway, University of London. She spent several years in magazine publishing and now works as a freelance science and nature writer and editor. She has authored several dozen reference books for all ages and edited over 200 scientific manuscripts. She writes features for magazines including 'BBC Wildlife', is a Country Diarist for the 'Guardian' and a new columnist for 'British Wildlife'. *@AmyJaneBeer*

Kate Bradbury is an award-winning author and journalist, specialising in wildlife gardening. She writes for a number of newspapers and magazines and is author of best-selling gardening book 'The Wildlife Gardener' (2017). Her latest book, 'The Bumblebee Flies Anyway' (2018), documents the transformation of a tiny decked patio in Brighton into a glorious wildlife oasis. She's passionate about inspiring others to create better habitats for wildlife in their own gardens and outside spaces. *@Kate_Bradbury*

Jill Butler has worked in countryside management and has been a volunteer with her local Wildlife Trust and for the Ancient Tree Forum. For the past 30 years she has travelled Europe to study trees, especially ancient trees and wood pastures, and has learnt that there is a unique biodiversity, heritage and cultural story associated with every species of tree. Since 2002 she has been a conservation advisor for the Woodland Trust. *@Safernoc934*

Mark Carwardine is a zoologist, an outspoken conservationist, an award-winning writer, a TV and radio presenter, a widely published wildlife photographer, a best-selling author, a wildlife tour operator and leader, a lecturer, and a magazine columnist. *www.markcarwardine.com @markcarwardinephotography*

Mya-Rose Craig is a 16-year-old naturalist and environmentalist. She was a Bristol European Green Capital 2015 Ambassador and writes the 'Birdgirl' blog. She set up 'Black2Nature' with the aim of increasing the access to nature of Black Asian Minority Ethnic people like herself, organising a conference and nature camps for which she was awarded the Bath and West Show Environmental Youth Award 2017. She has raised awareness through articles, talks, panel appearances, including with George Monbiot and Caroline Lucas, and TV, such as BBC2's 'Hugh's Wild West'. *@BirdgirlUK*

Carol Day has a degree in Environmental Sciences and a Masters in Nature Conservation. She has spent over thirty years working in the voluntary sector, including Warwickshire and Surrey Wildlife Trusts and WWF. She converted to law in 2002 and now splits her time as a consultant solicitor between the RSPB and public interest law firm Leigh Day, working on a wide variety of environmental issues. *@CHatton_Day*

Dominic Dyer is CEO of the Badger Trust and British Wildlife Advocate of the Born Free Foundation. He is author of 'Badgered to Death: The People and Politics of the Badger Cull' (2016) and a lay member of the Royal College of Veterinary Surgeons Veterinary Nurses Council. Dominic is a leading wildlife protection and animal welfare campaigner, writer and broadcaster. *@domdyer70*

Professor Dave Goulson is professor of biology at the University of Sussex. He specialises in studying the ecology and conservation of wild bees, and the impacts that pesticides have upon them. He founded the Bumblebee Conservation Trust, and has published over 280 peer-reviewed papers and a series of best selling popular science books about bees and other insects, including 'A Sting in the Tail' (2014), 'A Buzz in the Meadow' (2015), and 'Bee Quest' (2018). *@DaveGoulson*

Miles King has worked in the voluntary, public and private sectors of nature conservation for over 30 years, leading the conservation work at

The Grasslands Trust and Plantlife. He has written several books and many reports on nature, including 'England's Green Unpleasant Land', 'Nature's Tapestry' and 'A Pebble in the Pond'. He currently works at People Need Nature, blogs at anewnatureblog.worldpress.com and writes a weekly column for Lush Times. *@MilesKing10*

Bella Lack is a 15 year old conservationist who utilises her social media platform to engage all ages in issues facing wildlife across the globe. She is a youth ambassador for the Born Free Foundation, and is working with the Foreign Office on their Ivory Alliance project. Bella also blogs for The Ecologist and her personal blog callfromthewild.com to reach a wider audience on issues that she feels passionately about. *@BellaLack*

Georgia Locock is a vocal young conservationist, birder and first year undergraduate student studying Zoology. She is very active across social media, on her own blog georgiaswildlifewatch.com and through her public appearances. She uses these as platforms to campaign about issues that she's keen to impact and to educate others. *@GeorgiaLocock*

Dr Robert Macfarlane is a Reader in Literature and the Environmental Humanities at the University of Cambridge, and a Fellow of Emmanuel College. He is the author of books on nature and culture including 'The Wild Places' (2017), 'The Old Ways' (2012), 'Landmarks' (2016) and, with artist Jackie Morris, 'The Lost Words' (2017). His work is translated into many languages, and has been widely adapted for film, television, radio and performance. *@RobGMacfarlane*

George Monbiot is an environmental campaigner, Guardian columnist and author. His books include 'Feral: Rewilding the Land, Sea and Human Life' (2014). *@GeorgeMonbiot*

Ruth Peacey is a film maker, conservationist and campaigner. She has been documenting the isues surrounding bird persecution during migration in the Mediterranean for 8 years, mostly through projects titled 'Massacre on Migration'. She specialises in investigating conservation issues all over the world, exposing them through video content and social media. In 2017, Ruth won Birdwatch Magazine's 'Conservation Hero' award for her work. *@ruthpeacey*

Greta Santagata has a degree and Masters in Neuroscience from the University of Manchester. After working in science communication for many years, she then chose to pick up the camera and use the power of images to document the abusive relationship between man and nature. For the past five years she has been involved in environmental activism around Europe, reporting on wildlife crime as an award-winning film maker. *@Gretasantagata*

Rob Sheldon is a freelance conservationist working through RDS Conservation. He specialises in species conservation, management planning and project management. Rob previously worked for the RSPB where he was involved in advising on nature reserve management and international species recovery. He recently worked as Director of the King Khalid Wildlife Research Centre in Saudi Arabia. *@_robsheldon*

Dr Ruth Tingay is a raptor ecologist and conservationist with a specialism in eagles and has 20 years of field experience on five continents. She is a past President of the Raptor Research Foundation, has authored 30 plus scientific papers and co-edited the popular science book 'The Eagle Watchers' (2010). For the last eight years she has been writing the Raptor Persecution UK blog, attracting more than 4 million views and the wrath of the driven grouse shooting industry. *@RuthTingay*

Hugh Warwick is an author and ecologist with a particular interest in hedgehogs. His latest book, 'Linescapes, Remapping and Reconnecting Britain's Fragmented Wildlife' (2017) - tackles the issue of habitat fragmentation. His latest project, HedgeOX, is focused on reconnecting the landscape of his home county, Oxfordshire, to the benefit of hedgehogs. hughwarwick.com
@hedgehoghugh

Harry Woodgate is an award-winning illustrator whose work has been featured in various magazines and recognised in a number of schemes including the Penguin Random House Student Design Award. Their distinctive style combines digital techniques with traditional print processes, and often deals with themes relating to politics, LGBT+ and diversity representation, and our relationship with the natural world. Harry's first children's book, Lonesome Bog & Little Dog, explores the ecological importance of bogs and wetland habitats. Their portfolio is available at www.harrywoodgate.com
@harryewoodgate

If you would like to read more about each of the ministries and their proposals, download the fully referenced version of this manifesto at www.chrispackham.co.uk

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CHRIS PACKHAM ROBERT MACFARLANE GEORGE MONBIOT RUTH TINGAY MARK CAWARDINE
ROB SHELDON BELLA LACK GEORGIA LOCOCK DOMINIC DYER

200 IDEAS

TO MAKE A DIFFERENCE IN UK CONSERVATION

CAROL DAY RUTH PEACEY MILES KING DAVE GOULSON HUGH WARWICK MYA-ROSE CRAIG JILL BUTLER AMY-JANE BEER MARK AVERY KATE BRADBURY

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