

NATURE MATTERS

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FOREWORD



Welcome

Hello and welcome to issue 31 of Nature Matters ... and we are having something of a celebration - this is a milestone in its life as this is its 20th Anniversary year.

I'm grateful to the organisations and individuals who have contributed to this issue and, indeed, all the issues over the years.

A special thank you to Casandra for writing the article Lessons from Nature.

As ever, comments, suggestions and contributions are welcome.

Mike

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Turning the tide for manta rays

It can be easy to forget that our ocean is home to a staggering 80% of all life on Earth. For every sighting from the shore, every ripple on the surface, every encounter in the shallows – there are many more wonders lying beneath the waves.

And of all these weird and wonderful creatures, the magnificent manta ray is surely one of the most extraordinary.

Boasting a wingspan of up to an astonishing 29 feet, these gentle giants are a true marvel to behold as their ghostly forms glide gracefully along beneath the rolling waves.

When it's time for dinner, their incredible creativity comes on show: congregating in groups of up to 150 frenzied filter feeders with mouths agape, these amazing animals can be seen somersaulting, barrel rolling and swimming in tandem in a captivating cyclonic pattern.

And after swimming up a storm, what could be better than a revitalising deep clean?

Pulling up at a coral reef cleaning station, helpful parasites are on hand to meticulously clean the rays' gills and skin. Many rays have even been known to return to their favourite cleaning station over and over again!

But a storm is brewing. As with so many of our ocean's inhabitants, the pressures imposed by humans are reaching an unprecedented scale.

Considered a delicacy by some, rays are relentlessly fished for their meat and are increasingly being targeted for their gills. Each year it is estimated that thousands upon thousands of these poor creatures are killed to be used in traditional medicines.

To make matters worse, manta rays typically give birth just once every couple of years to only a single pup. They simply cannot compete with the rapid rate at which their kin are being killed.

These powerless rays need protecting.

It's time to turn our attention to the ocean. Before it is too late.

In Myanmar, where manta rays are present at many of the marine sites FFI operates in, we are forming a key action plan to protect rays and other threatened marine life forms. We have plans to step up our efforts to safeguard these incredible creatures and the areas they inhabit - but we urgently need your support.

Fauna & Flora International



Photograph: Emma Li (Pexels)



Photograph:
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Nature Positive

Nature Positive 2030 has been produced by the Joint Nature Conservation Committee, Natural England, Natural Resources Wales, NatureScot and the Northern Ireland Environment Agency. It consists of two reports – a Summary Report and an Evidence Report. Nature Positive 2030 was published in September 2021 to mark the first anniversary of the Leaders’ Pledge for Nature.

In response to the crisis of biodiversity loss, many Heads of State around the World have recently made hugely significant commitments for nature, notably through the Leaders’ Pledge for Nature launched at the United Nations General Assembly in 2020, and the 30by30 commitment to protect 30% of our land and seas for nature by 2030. These commitments are far reaching, requiring transformational change across sectors in the way we protect, value, use and engage with nature.

Through Nature Positive 2030, the five statutory nature conservation bodies of the UK have come together to identify how the UK can succeed in achieving these commitments along with ensuring that nature recovery plays its critical role in achieving net zero. In the Evidence Report we draw upon the extensive good practice that exists across the UK to present solutions that can be scaled up to achieve change.

The Evidence Report is accompanied by a companion document, the Nature Positive 2030 Summary Report, which provides an easily accessible overview of the main findings and conclusions.

more information:

<https://jncc.gov.uk/our-role/the-uk/nature-positive-2030/>

Lessons from Nature



Photograph: Alexander Grey/Unsplash

FEATURED ARTICLE

Rationing our resources

The word green and climate change echo in the streets and homes. Through loudspeakers and as whispers. And the symptoms of our planet's illness have taken a toll on the habitants. As droughts and floods, fires and hails sweep through the lands like a plague, displacing people and billing us huge amounts.

We face the consequences of the increase in carbon emitted into the atmosphere, alongside increases in plastic waste. Our loss of biodiversity and natural defenses against natural disasters such as mangroves and coral reefs. Alongside contamination and loss of nature's carbon storehouses; forests, oceans, wetlands, and grasslands. The threats to our lives are probably just beginning, as things are predicted to get worst as tipping points are triggered. Now we know it's a bad idea to tamper with nature, as it destabilises our planet

Throughout stability, nature has kept the balance and the ecosystem in check. Nature was designed to sustain, through original ideas of recycling every component, species variation, ecosystems, and even extreme measures at times. Nature has sustained our seven worlds in one planet. Through an endless interdependent cycle; trees are rooted in healthy soils, soils obtained from the breakdown of their fruit by microscopic organisms to form healthy organic soil. As these trees produce fruits for all forms of life including birds, that further disperse their seeds far and wild to grow.

An interdependent system that has kept the stability we depend on, nature achieves this through recycling, rationing, renewal, and resuscitation. We learn from nature each day, as birds are to airplanes, and submarines are to whales. We draw knowledge from the aspects of nature we yet understand so little about.

Our biggest inventions are inspired by nature.

Nature has the solution to our climate crisis. We've already taken a few ideas from nature such as recycling, as we advertise and promote no waste campaigns. Another idea can be rationing.

Luxury is for the rich, human species were once rich, rich in biodiversity, ecosystem, wildlife, and nature. But we have lost 5 million hectares of forest every day over the last 10 years. And 500,000 insect species are threatened with extinction. The average population of wildlife has dropped by 68% counting from 1917. Half the world's corals are destroyed. The rate at which we lose species to extinction is detrimental. As the

FEATURED ARTICLE

assumed smartest species on earth and stewards of our planet, we have put at risk and at stake everything given to us including our very own lives by unsustainably exploiting nature and wasting resources, and unreasonably intruding into nature's personal space. One thing we can learn from nature is to ration.

How does nature ration?

As in winter when there is little supply and food. Although winter may seem the worst for wildlife, the ice does some good. As it helps replenish aquifers as the snow slowly melts, it recharges fields, Plants can store energy for new growth by being dormant due to shorter days and low temperatures. The soil texture and structure improve after winter. But it comes with a limited supply of food for a whole world of wildlife. This is when they begin to ration. Plants and grasses gathered during autumn are eaten during the long winter period. They ration the supply available for as long as winter lasts. Even some who fatten up and build up an extra fat layer also ration the way they utilise energy. They reduce activities that require energy and tiring out. They know that is essential and they do it to stay alive.

Even nature rations. It spends the entire winter trying to regain and revitalise its supply and resources which is why spring can have an abundance and surplus. With time and space, it enriches itself.

We can ration considering we no longer have a surplus, and our extravagant lifestyle is the reason we are in our current state, it's the reason our rivers and aquifers are running dry, and the reason we have so much carbon in our atmosphere.

Our most significant producers of carbon are:

Electricity, Transport, Agriculture and Industry

Electricity

60% of electricity generated is obtained from fossil fuels: coal, and natural gas. Fossil fuels are our major carbon emitter. Rationing our electricity use while waiting for other green alternatives to become mainstream is one answer. Availability of electricity 24 hours a day should be reserved for sectors where this is essential like hospitals. I believe that ordinary households can learn to live without that luxury.

Transport

This is a massive source of carbon emission alongside electricity as fossil fuels are used, therefore rationing our use of cars and using other green methods such as walking or cycling and using

public transport can go a long way to reduce our carbon emissions. Electric cars are the future of our world as they do not use these.

Agriculture

It has long been known that we produce more food than we need and about a third of the world's food goes to waste. This means we don't need more land to produce more food. We can begin to afforest the lands we no longer need for agriculture and practice agriculture only on those acquired long ago.

And the lands should be returned to the locals since natives have a connection with their lands, and some serve them like living entities and show respect. Returning native lands to natives is a way of sustaining the lands

Industry

Type the word Industry into Google and go to the image section and you will find the popular image of the smokestack with fumes pumping out into the environment. Industrial mass production means increased energy consumption. This energy comes in the main from burning fossil fuels. Industries should begin to manufacture just the right quantity of resources needed by their target clients. And some industries that produce products that harm our environment like plastic should be substituting these with greener ones or should be given a lower ration of resources.

We have lost so much because we have taken them for granted and having had an excess we never thought we would run out of them. In order to overcome this challenge we should only have what is absolutely necessary because now our resources are limited.

Chikanele Casandra is a freelance writer who specialises in wildlife and the environment and loves everything about nature. You can see more of her work on [Digitalwritershub.com](https://www.digitalwritershub.com)



Photograph: Mike Armitage

RSPB FARMING DOCUMENTARY LAUNCH

'Farming with Nature' explores the practices and outlook of three farmers with deep rooted links to very different landscapes in Wales, discussing their first-hand experience of positive changes they've made for nature and their hopes for what could be achieved in the future.

The film features a backdrop of stunning imagery which transports the viewer from the Pembrokeshire coast to the lowlands of Carmarthenshire and to the uplands of the Elan Valley in Powys.

https://www.youtube.com/watch?v=RKK_ZQqqK2c

STRIVE FOR A BETTER WALES AGRICULTURE BILL

We must continue pushing for a Wales Agriculture Bill that supports farmers and creates a farming system that benefits people, nature and the climate.

Citizens of Wales have been asked to write to their Member of the Senedd, asking them to support a Bill that will help us to reverse nature's decline.

2022 Water Quality Report

Surfers Against Sewage released their 2022 Water Quality Report, exposing the stench behind the sewage scandal.

They have found evidence of potential illegal activity where water companies have been dumping raw sewage when there's been no rain. They're only allowed to discharge sewage in 'extreme rainfall' conditions, but we found **evidence of 146 'dry spills'** in the last year, that's opening up overflows and discharging sewage when there's been no rain. 95 'dry spills' were in 'excellent' bathing waters

This summer, water companies poured untreated sewage into UK bathing waters **5,504 times** during the bathing season. And there were 400 sickness reports from bathing waters classified as 'excellent'.

Meanwhile, they persist with paying out **big CEO bonuses and shareholder dividends (£965 million)** despite most water companies making a loss this year. Their environmental ratings drop as they continue to profit from pollution.

They found:

Over the 2022 bathing season, **sewage was dumped into rivers and seas in England for a total of 15,012 hours.**

We had 720 sickness reports over the last year, with cases of bacterial infections, kidney failure and Leptospirosis. Two thirds of cases who visited the doctor had their illness attributed to contaminated water.

400 sickness reports were at 'excellent' bathing waters

Birds bounce back when farms devote land to nature-friendly measures



Photograph: Ben Andrew ([rspb-images.com](https://www.rspb-images.com))

A new study calls for a more strategic approach to wildlife-friendly farming schemes to recover England's farmland bird populations, with a greater emphasis on 'higher-tier' style agreements that manage around 10% of land for nature.

To recover farmland birds by 10% over ten years, approximately one third of the lowland farmed landscape needs to be managed under these higher-tier agri-environment agreements.

However, targeting these agreements to farmland that already holds the highest numbers of priority birds, means less land needs to be managed in this way making more efficient use of government spending.

A more strategic approach to wildlife-friendly farming schemes is required to recover England's farmland bird populations, according to a new study led by the RSPB.

A new paper published today in the Journal of Applied Ecology, with support from the BTO and funding from Natural England, monitored how farmland bird populations responded to different levels of agri-environment schemes in arable, pastoral and mixed farming landscapes.

The UK government has recently introduced a legally binding target to halt species abundance declines in England by 2030, with similar timebound EU targets currently under discussion. With many of our previously common farmland birds such as Starlings and Skylarks in steep decline, there is a pressing need to rapidly implement effective conservation interventions across the farmed landscape, including through the new Environmental Land Management Schemes currently being developed and piloted in England.

This ten-year study measured changes in the abundance of farmland birds on land managed under bird-focused lower- and higher-tier agri-environment schemes, as well as land no bird-friendly farming initiatives.

Under the higher-tier scheme, an average of 11% of the farm was devoted to bird-friendly measures, whereas <4% was managed under the lower-tier schemes. The authors specifically studied bird-friendly measures that provide seed-rich habitat for winter foraging, insect-rich habitat for feeding chicks, and nesting habitat for ground nesting species such as Lapwing. Higher-tier farms also received bespoke one-to-one management advice prior to the start of their agreements.

The results showed that when approximately 10% of a farm was devoted to bird-friendly farming practices under the higher-tier scheme, this benefitted over half of the farmland bird species in two of the three study regions. Although lower-tier provision generally failed to increase bird numbers, it helped to sustain populations of some species, which continued to decline in the absence of agri-environment support elsewhere.

The second part of the study asked what proportion of the farmed landscape would need to be placed into higher-tier agreements to recover farmland birds by 10% over ten years. The answer was similar in the two regions – 26% in the pastoral West Midlands and 31% in arable East Anglia.

However, by targeting higher-tier agreements to farms that already hold higher numbers of priority farmland birds, this requirement drops to 17% and 21% respectively, which represents a significant cost saving. This is the first study to shed light on the amount of nature friendly farming that might be required to recover farmland birds at a landscape scale.

RSPB Conservation Scientist and lead author of the study Dr Rob Hawkes said: "This is the first study to ask the question - how much nature-friendly farming is needed in the English landscape to recover our depleted farmland bird populations? Agri-environment schemes can only recover farmland birds if sufficient bird-friendly habitat is provided at both the farm and landscape scales. There needs to be better, more strategic, thinking when agreeing these nature-friendly packages."

The study cautioned that some species with specialist requirements, like the Turtle Dove, will need specific tailored habitat management that is carefully targeted to the sites where the species is still hanging on. The generic bird-friendly measures tested in this study had no discernible benefits for this species.

Alice Groom, RSPB Senior Policy Officer said: "This research has landed as Governments from the four UK countries develop new agricultural policies to replace the EU's Common Agricultural Policy. This provides a critical opportunity to design future agri-environment schemes that are effective and deployed at a sufficient scale to recover farmland wildlife.

"Welsh Government have proposed making the 10% farm scale provision a universal element of the Sustainable Farming Scheme. In England, Defra has yet to set out how they will ensure the new Environmental Land Management scheme (ELM) contributes to the new legally binding targets to halt the loss of species abundance by 2030 and reverse it by 2042."

Whilst the study only reviewed the impact of bird-friendly farming initiatives on farmland bird populations, the authors suggest that these, and other wildlife-friendly schemes will benefit more than just wildlife. Nature underpins our ability to produce food and can provide food-sustaining ecosystem services like clean water and better soils. Simply put, nature can improve the resilience of the farming sector.

MCS is taking legal action to protect English seas from sewage dumping

Excessive spills of untreated sewage into rivers and seas from so-called storm overflows have hit a new high in the last year.

The devastating impacts of this pollution on our beaches and seas are clear to see. During the MCS flagship Great British Beach Clean in September they found some sewage-related pollution on 73% of the beaches surveyed in England.

Many people share MCS's passion for a healthy ocean, for wildlife and people, which is why they want to share an important announcement:

Excessive spills of untreated sewage into rivers and seas from so-called storm overflows have hit a new high in the last year.

As a co-claimant in a judicial review against the UK Government's Department for Environment, Food and Rural Affairs (DEFRA), we're calling for a rewrite of its Storm Overflows Discharge Reduction Plan 2022 to:

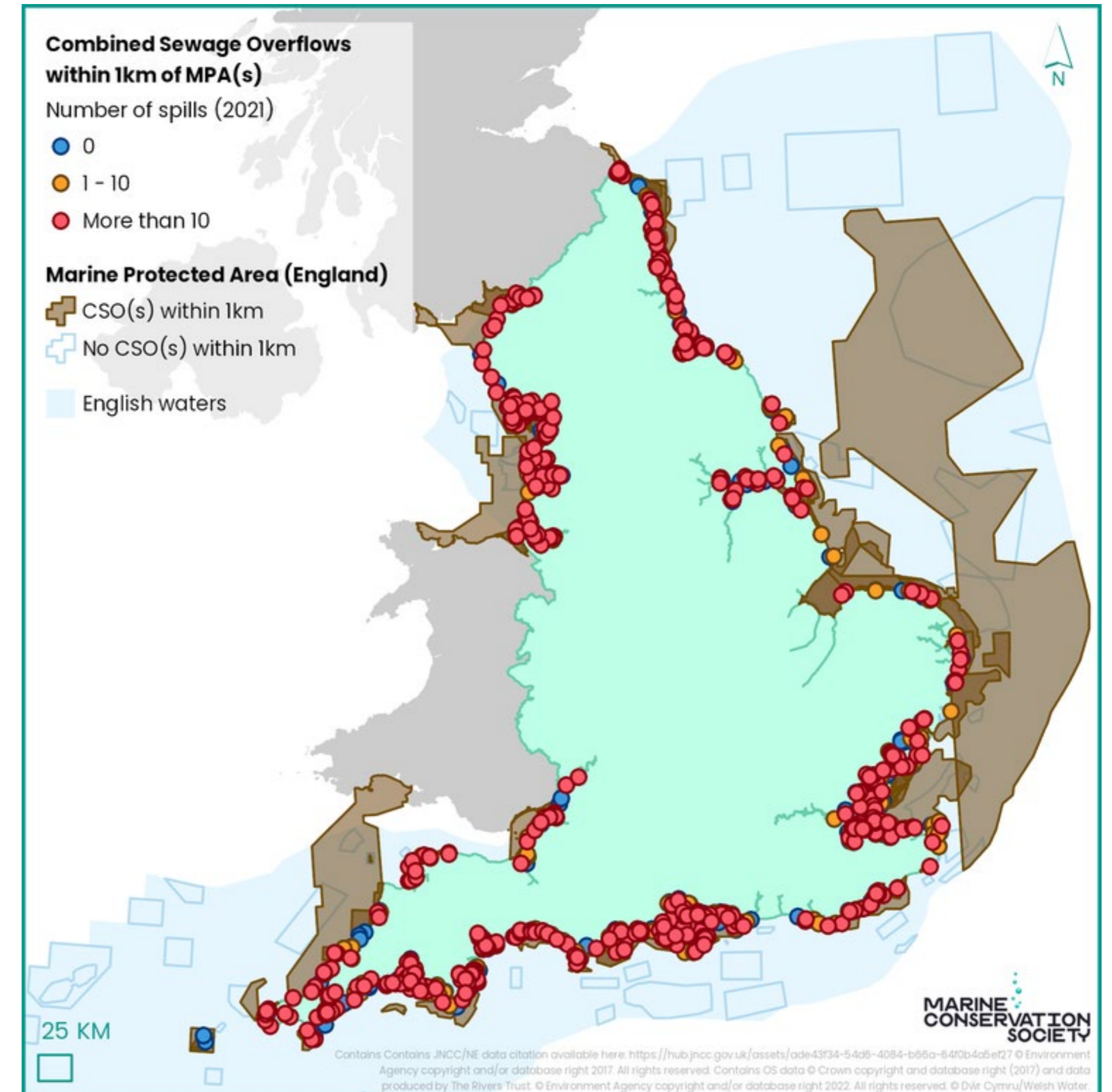
- +Impose tighter deadlines on water companies
- +Redevelop the Plan to apply to coastal waters which are, currently, almost entirely excluded
- +Set targets to stop harmful pollutants, including chemicals and microplastics, at source

We're very grateful that all our legal fees will be covered by Good Law Project, a not-for-profit who are running a crowd-funder for this case.

You can read more about how we've reached this point of last resort, and how you can support our work, on our website. We'll keep you updated as the case progresses.

Sandy Luk, CEO
Marine Conservation Society

<https://www.mcsuk.org/news/>



THE Great British Beach Clean



Illustration:: MCS

2022 saw another year of brilliant volunteers from across the UK get involved in the Marine Conservation Society's Great British Beach Clean. People young and old took part in a quest to clear their local beaches, streets and parks of litter, and record their findings.

The results from this year's Great British Beach Clean are in! During September's 10-day event, we had an amazing 382 clean-ups around the UK, with a fantastic 5,261 volunteers taking part.

Between them, 141,048 items weighing nearly 4,000kg were picked up from more than 30 miles of beach. This was an incredible achievement, so a massive thank you to everyone who took part this year.

What did the results show?

5,261 dedicated volunteers took part in our Great British Beach Clean 2022. An amazing 30 miles of beach was cleaned across the UK with litter items recorded over the ten days - the results are now in!

Our amazing volunteers helped to pick up over 141,048 pieces of litter, weighing in almost 4,000kg - roughly the weight of 26 bottlenose dolphins.

In positive news, the average litter recorded per 100 metres is dropping year-on-year across the UK. An average of 369 items were found in 2022, compared to averages of 385 in 2021, 425 in 2020, and 558 in 2019.

In other good news, although cigarette stubs are still being found on 60% of cleans, their numbers have decreased by 25% since 2021.

Unfortunately, 93% of beaches around the UK found drinks-related litter (including glass and plastic bottles, cans, caps and lids), backing our longstanding call for a Deposit Return Schemes to be introduced to tackle this form of ocean pollution.

Wet wipes and sanitary items have seen a huge increase of 77%, particularly in Scotland.

Dr Laura Foster, Head of Clean Seas at the Marine Conservation Society said, "It's good news that litter levels are dropping, albeit slowly, and we know that governments' actions have been shown to be highly effective, from introducing carrier bag charges to the banning of certain single-use plastic items.

These small changes have resulted in notable differences in the amount of these types of litter found on our beaches. However, there is a worrying increase in the amount of glass pieces being found, suggesting that glass is now frequently being littered.

The results from this year's Great British Beach Clean revealed drinks-related litter featured in the top five most common items for each country, and came sixth overall for the UK. There is a solution to these high levels of litter - implementing Deposit Return Schemes (DRS) throughout the UK. Scottish Government will be introducing its own DRS next year and the rest of the UK should be taking note of this success and aim to follow suit.

First ever species monograph of the Tawny Owl

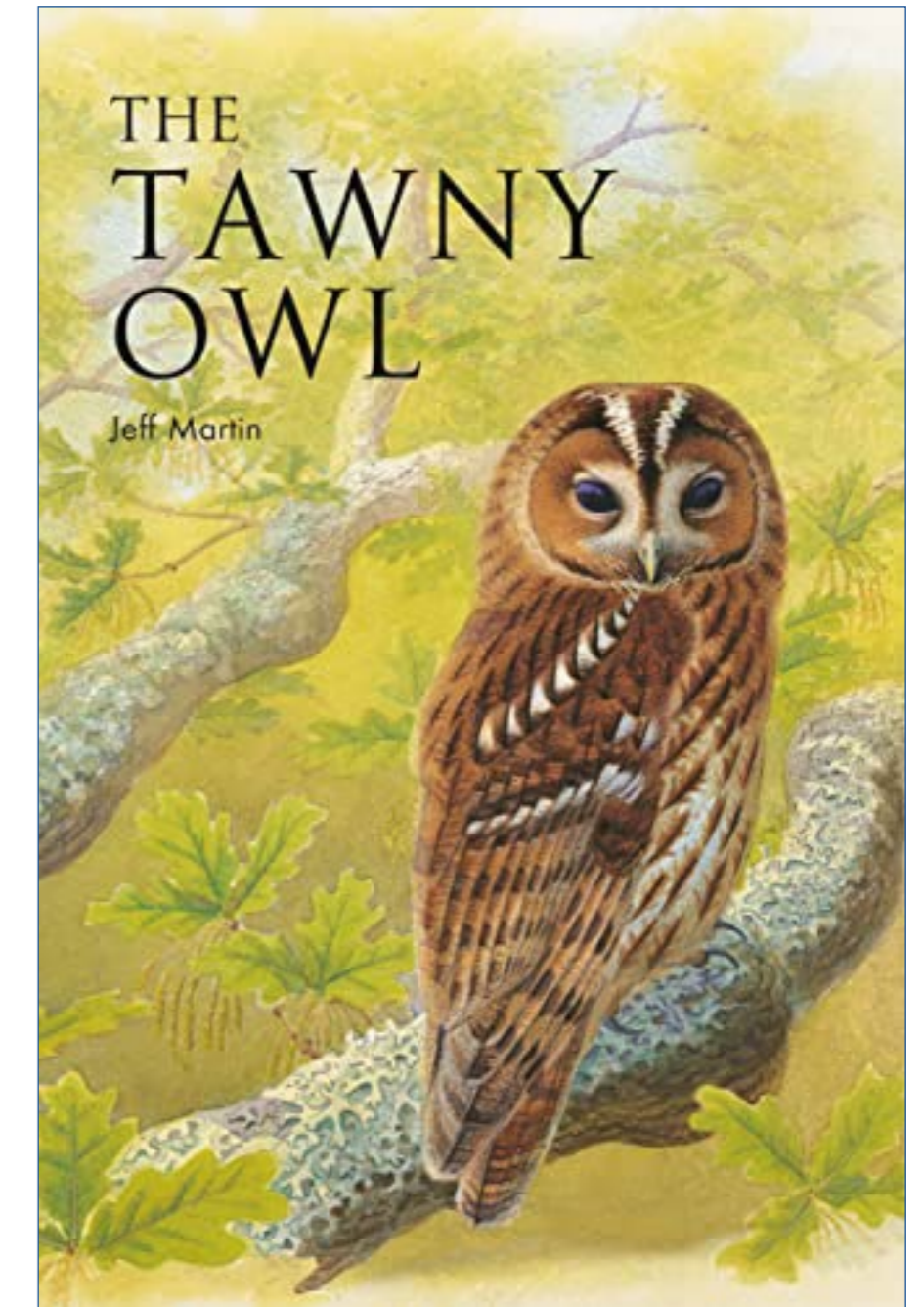
The haunting calls of the Tawny Owl can be heard from Scandinavia in the north of its range to North Africa in the south. Most people would consider it to be a common and widespread species throughout Europe, but populations in Britain at least are declining, and we need to understand more about the behaviour and ecology of this magnificent woodland bird if its future is to be secured.

Jeff Martin has been studying owls for decades, and in this book he combines his personal observations together with those of other ornithologists and a comprehensive review of the literature, resulting in some surprising revelations.

The Tawny Owl was formerly considered to be one of the most nocturnal of all owl species, but in recent years it has been observed sunbathing, calling and even hunting in broad daylight.

Chapters detail the evolution and classification of this relatively young species, its status and distribution across Europe, its feeding, breeding and behavioural ecology, why numbers are falling, and what we can do about it.

The book concludes by looking at the role that Tawny Owls have played in British culture, and whether the changes in behaviour and plumage among the British population could mean we have a new subspecies evolving on our island.



This is a very interesting new book. Since I was young, I've had a strong interest in Tawnies, so I will be reviewing this book in the next issue.
[Mike - Editor]

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