Broadsheet

The Magazine for Broadland Tree Wardens

Issue 203 – August 2021

Please Get Real

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Inside this issue

This Month's Cover Picture

Just what has this veteran tree seen in its lifetime?

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It is circulated free of charge to Broadland Tree Wardens parish and town councils, parish meetings and other interested parties.

Please Get Real

I AM becoming increasingly disillusioned with the position of Tree Wardens. Let's face it, we are a bunch of environmentally aware individuals who wish to do something to both conserve and improve our local environments … and therefore plum material to be taken advantage of.

So, just what has happened to make Fleetwood get out of his tree … again? Just who has upset him this time? Just who or what has niggled him this time? Well, I'm going to tell you. Are you sitting comfortably? Then I'll begin

It has occurred to me that during my thirty years as a Tree Warden both our roles and our knowledge have increased enormously. No longer are we a bunch of carrot crunching, tree loving hippies (remember them?), but instead we've become a knowledgeable and skilful team carrying out valuable work, free of charge, throughout the UK.

Behind us, of course, we have the incredibly supportive Tree Council. Let's face it. What Sara Lom, Jon Stokes and the rest of the incredible team don't know isn't worth knowing. I have often said that we owe them all a great debt, but really it is the nation that owes them all a great debt … though the nation may not know it!!

This knowledge the we Tree Wardens have gained, coupled with the fact that we are willing to get off our derrieres and get mud on our boots (and everywhere else according to Lesley!) makes us prime targets to be used and, I regret to say in some cases, abused.

Two recent events have made me wonder if we are victims of our own success. They are not the only cases but they are most representative.

Once again, a great opportunity has been missed because Norfolk County Council (NCC) has failed to appreciate that Tree Wardens are volunteers and therefore cannot always respond to requests and suggestions within a few days. Furthermore, 'probably' and 'maybe' are not good enough answers. We need to know exactly where we stand. You will I recall that, together with our colleagues in South Norfolk, we recently had to decline becoming involved in NCC's ambitious tree planting plans.

Now, again together with the South Norfolk Network, your Executive Committee has had to decline becoming involved in the authority's School Community Tree Nursery project.

We cannot possibly embark on a project where biosecurity must be paramount and complete support from schools guaranteed during times when COVID-19 remains prevalent.

I had interest from three schools but, quite understandably, they could not commit to the idea because they don't yet know what the position regarding COVID-19 will be when they return after the summer break. Currently, most schools appear to have classes in isolation and that will probably be the same next year.

Add to that the unanswered questions regarding insurance, DBS clearance, guaranteed teacher involvement, access to schools during holidays in order to carry out essential watering and many other matters and we had no choice but to decline our support.

One would have expected NCC to have realised that commercial tree nurseries will not be able to meet that anticipated demand for trees in the coming years but they are now trying to find alternative sources and, as our Network already has its own nursery, we became a possible source.

We cannot be expected to give trees to NCC free of charge, but we cannot get involved with tax and VAT by selling them.

I cannot see how we can effectively set up community nurseries ready for the coming seed collection season and ensuring biosecurity. The idea is ill conceived and your Executive Committee cannot agree to be part of it.

Furthermore, the idea of using our nursery as a training base is wholly unacceptable. We are simply not in a position to host that.

So, once again we have had to decline NCC's offer to spear-head a project for them. Perhaps next time they will allow enough time to cover all bases rather than expecting us to cross huge bridges for them.

Of course, this follows on from the idea of the Network requesting funding from the Local Authority Treescapes Fund. It is a government tree planting fund that can only be accessed by county or unitary authorities.

In the end we found that we would have to compile estimates and tree planting plans, together with details of aftercare, basically within a few days. I just couldn't do it in that time and it wasn't just me. None of Norfolk's five district councils or Norwich City Council showed any interest either.

I was also alarmed when I was asked for details of the Co-ordinators of "the other Tree Wardens in Norfolk". When I explained that just Broadland and South Norfolk have Networks and then only because we have been prepared to "go independent", NCC appeared somewhat amazed.

Breckland did have a Network many years ago of course, but closed it in order to save officer costs (the common reason) and nobody was willing to set up as independent.

I sent them a copy of a paper I produced some years ago when I proposed a way of creating Networks in those other districts and the last, I heard NCC was attempting to do that.

I have to say that, following many years of local authority cost-cutting with trees and the environment being the main targets, I refuse to feel guilty about our reluctance to get involved.

We didn't close our Tree Warden Networks as Broadland, South Norfolk and Breckland did. We didn't decide at the eleventh hour to apply for funding to plant trees. We didn't decide that Tree Wardens could plant them but overlooked asking them first!

We didn't promise to plant a million trees before ensuring that we could get hold of a million trees to plant. We didn't close our tree nursery as NCC did theirs. We didn't ask Tree Wardens to plant a million trees … but only on publicly owned land and not on highway authority land.

We don't plan projects with terms such as

'perhaps', 'maybe', 'possibly' or 'quite likely'.

Tree Wardens may be volunteers. We may not be professionally qualified. However, Tree Wardens have an excellent knowledge and a wide-ranging experience. Just maybe local authorities should wake up a smell the coffee before it gets cold and more opportunities are missed.

THE MyLondon website has reported that Harrow Council has unveiled plans to charge locals as much as £295 to plant a new tree and keep it watered under a new sponsorship programme.

The Trees for Streets campaign seeks to encourage more tree planting across the country and has called on communities to add donations to the cause. Under the initiative, it costs residents £195 to plant a new street tree, with responsibility for its watering passed on to the donor. For an extra £100, Harrow Council will water the tree for the donor.

Trees for Streets representatives explained council budgets are "extremely stretched" which has impacted on their ability to plant trees.

Simeon Linstead, project director of Trees for Streets, said the council will continue with its tree planting programme but this represents a chance for communities to support the push for more greenery in their areas.

"The aim is to get more trees planted in Harrow than we'd normally be able to do," he said. "A street with lots of lovely trees on it is nicer than one that is bare – it's good for your health, it looks better and has an effect on the architecture of the area and the simple act of having a tree planted and caring for it can be really powerful and open up a world of engagement."

Those looking to get involved can pick the area they would like to see their tree, which will be granted in most cases provided it is practical and safe. However, participants will not be able to attend the planting as it is carried out by an external contractor.

Under the initiative, Harrow Council will endeavour to replace the tree up to twice over the first five years if it dies or is vandalised, provided this is financially possible.

Mr Linstead said most of the tree planting costs in each case – between £250 and £450 – will be covered by the council, while it is hoped funding will be made available under the Government's Green Recovery Challenge Fund to provide more trees in "priority", and often less affluent, areas of Harrow.

Cllr Graham Henson (Lab, Roxbourne), leader of Harrow Council, said: "Trees are so important and as they grow, they help stop climate change by removing carbon dioxide from the air, storing carbon in the trees and soil, and releasing oxygen into the atmosphere.

"This project gives the people of Harrow the means to improve their neighbourhoods both for those who live there now, and for generations to come and so it's yet another reason we can be proud of this borough."

Broadsheet won't comment on this as it will get me into trouble!

NEW houses must be built on tree-lined streets with an emphasis on traditional local architecture and promoting walking and cycling, Housing Secretary Robert Jenrick has announced.

The Government's new national design code that will set out minimum standards for all new housing developments was published last month and sets set out minimum standards for all new housing developments.

Under the Building Beautiful Places plan, "good quality design will be paramount" with local councils given the opportunity to develop their own local design codes based on their local vernacular.

According to the Department for Housing, Communities and Local Government a National Model Design Code will provide councils with guidance across all aspects of new developments, including "tree-lined streets, sustainable drainage and design to support walking and cycling".

Mr Jenrick said that the Government will for the first time include the word "beauty" in the planning rules and is likely to see cities and towns in the north draw from the local red brick architecture, while those in the south-west will utilise Portland stone.

He said: "This is about putting communities, not developers, in the driving seat to ensure good quality design is the norm and the return to a sense of stewardship – to building greener, enduringly popular homes and places that stand the test of time in every sense."

The measures will also give planners more power to reject "ugly" developments.

The move follows years of work by Prince Charles advocating the need for traditional architecture to be used more in new housing developments. His housing schemes, Poundbury in Dorset and Nansledan in Cornwall, are believed to have been a key inspiration behind the Government's plans.

The Government has also published its new National Planning Policy Framework, which commits councils to placing the environment and sustainability as well as beauty at the heart of local decision-making.

Whilst Broadsheet welcomes this news, I must ask how planners will apply these new standards when they don't apply the current ones? What will be different? Are we really expected to believe that control is to be removed from money-grabbing developers and placed back into the hands of the communities that have to suffer the results of their arrogance?

Somehow, I just cannot see it. I fear that the current mode of build cheap, build quick and build what you can get away with will continue for some time yet.

SMALLWOODS, recently reported that government scientists are stepping up the fight against an invasive tree pest of the sweet chestnut, the Oriental chestnut gall.

The Oriental gall wasp was first found in the UK in 2015. The wasp triggers galls on the buds and leaves of sweet chestnut which damage the tree. In high numbers, the gall wasp can weaken sweet chestnut trees and make them more vulnerable to other pests and diseases, including sweet chestnut blight.

Approval has been given for the release of a parasitoid wasp called *Torymids sinensis* a natural biological control agent, to feed on the gall-producing wasp to protect the health of sweet chestnut trees.

Torymus sinensis is already present naturally in England but in very low numbers. Further releases of the parasitoid will enable the population to build up to a level to effectively control the gall wasp. This method of biological control is used successfully in many countries across Europe.

JAMIE Hailstone, writing on www.forbes.com reported that according to a new report planting trees and other forms of greenery could boost the UK economy by £366 million.

The report, commissioned by the UK100 group, claims investing in woodland could create up to 36,000 new jobs around the country, as well as help Britain achieve its Net Zero goals.

According to the analysis, conducted by academic researchers with the Place-based Climate Action Network at Queen's University Belfast, the economic benefit of planting a single tree ranges from £1,200 to £8,000, over a period of 50 years. It says planting 6,000 trees strategically located across a large English town would boost the local economy by £48 million over half a century, or nearly £1 million per year.

The report argues that benefits will include improved air quality, lower crime rates and higher levels of spending in local high streets.

According to the report, consumers are willing to pay between 9% and 12% more for goods and services in shopping areas with large, well-cared for trees and research suggests for every 10% increase in tree canopy cover in a town, there is a 15% decrease in violent crime and a 14% decrease in property crime, even taking account of other factors.

It adds increasing woodland would support 24,600 jobs across the West Midlands, 2,300 jobs in Greater Manchester, 2,250 jobs in Glasgow, 2,250 jobs in Leeds and 1,625 jobs in London.

The UK government has repeatedly stated that it wants tree-lined streets to be the "norm, not the exception". Speaking in January 2020, the Communities Secretary Robert Jenrick, said: "We set out in our manifesto that we will expect all new streets to be lined with trees and are working to make this commitment a reality."

Plans are already in place across the UK to plant more trees. The Great Northern Forest Scheme plans to plant 50 million trees in a new woodland that will join up Liverpool, Manchester and Lancaster with Leeds, Sheffield and Hull. An area home to 13 million people, it only has 7.6% woodland cover, much lower than the England average

Greater Manchester Mayor, Andy Burnham, said "Investing in trees and improving our urban green spaces can help our residents to breathe cleaner air and can help to meet our climate ambitions, but it can also give our high streets and our wider economy a much-needed boost, bringing good green jobs to places across our city-region. That's why we're planting a tree for every citizen of Greater Manchester through our City of Trees movement."

The Glasgow City Region is also planning to create an urban forest to connect woodlands across the area. The Clyde Climate Forest aims to plant 18 million trees, 10 trees for every person in the region over the next decade. This will increase the woodland cover in the region from 17% to 20% and support Glasgow, which is hosting the UN COP26 summit in November, to meet its target of becoming a Net Zero Carbon city by 2030.

"The value of high-quality green spaces to exercise and clear the mind has been acutely felt during the pandemic and, this year, we have a once in a generation opportunity to deliver on our climate ambitions and secure a Green Recovery.

"We have to ensure the economic, ecological and social benefits are felt by all. More street trees and planting new woodland

bring huge benefits to our community - not just in terms of wellbeing, but in jobs and a boost to business," said Glasgow City Council Leader, Cllr Susan Aitken.

Cllr Richard Clawer, the Leader of Wiltshire Council and Chair of the UK100 Countryside Climate Network, added: "This research highlights the need to invest in a post-pandemic recovery that enables Net Zero and protects our natural environment."

DISTURBING news from Laura Oleniacz, North Carolina State University, who reported that many organisations and companies report using commercial species in tree planting projects.

Organisations and companies planting trees in the tropics may often pick species for their commercial rather than ecological value, researchers found in a new analysis of organisations' publicly available data. They also found many may not have tracked the trees' survival.

Tree planting is a promising, but controversial, restoration strategy for fighting climate change. A new study in the journal Biological Conservation provides a detailed look at what restoration organizations across the tropics are actually doing on the ground.

"We found some organisations placed an emphasis on biological diversity and forest restoration in their mission statements. When we looked at the species they reported planting, many organisations reported planting commercial species, with chocolate, mango and teak in the top five," said the study's first author Meredith Martin, assistant professor of forestry and environmental resources at NC State. Martin led the study with researchers from The Nature Conservancy, an organisation that was also included in the analysis.

For the study, researchers analysed publicly available data from websites and annual reports for 136 non-profit and 38 for-profit companies, gathered using internet searches and referrals from Yale University's Environmental Leadership and Training Initiative. Their analysis included projects focused on forest conservation, economic development, or humanitarian aims in 74 different countries, all located in the tropics or subtropics. Brazil, Kenya and Indonesia had the largest number of projects.

Of these organisations, 118 reported the numbers of trees they planted. In total, they reported planting a total of 1.4 billion trees since 1961. At their estimated average rate of planting in the tropics, it would take more than a thousand years to plant a trillion trees - a goal set by at least three global initiatives.

Organisations reported planting a total of 682 species - a fraction of the roughly 50,000 species of trees found in the tropics, Martin said. Without having access to data about numbers of trees planted by species, they estimated the percentage of organisations planting certain species. The most commonly reported species, ranked by number of projects reporting those species, were cacao, teak, moringa, mango and coffee.

Nearly half of the groups didn't mention their planting method. The most common planting method was agroforestry. 10% talked about planting using assisted regeneration, 7% focused on enrichment planting, and 2% focused on natural regeneration.

"There's been a lot of research looking at natural regeneration, which is protecting a forest and letting it regrow," Martin said. "It can be cheaper, and more effective in terms of accumulating biomass and species diversity. There are also ways of assisting regeneration to encourage the species you want."

Thirty-two individual organisations mentioned monitoring tree survival. Of those, eight mentioned measuring survival rates and seven mentioned maintenance of plantings. Three gave detailed information about monitoring and two mentioned they worked with outside groups for monitoring or certification.

"If you're not monitoring whether the trees you're planting are surviving, or taking steps to ensure they're surviving or growing, that could be a waste of money and effort," Martin said. The findings are important as groups look to plant trees to mitigate climate change.

"Trees are natural and incredibly efficient carbon capture entities," Martin said. "They're also living organisms. They're not just machines we can put down anywhere. Organisations need to be thoughtful about what species they are going to use and how they make sure they match the environment, as well as tracking to make sure they're not wasting money on something that doesn't work."

I WAS pleased to read that Andrew Mitchell, MP for Sutton Coldfield, speaking in the House of Commons after 108,000 people signed a petition calling for greater protection for hedgehogs.

The number living in the countryside have fallen by half. He said: "Surveys show time and again just how loved hedgehogs are by British people. They have been voted Britain's most popular wild mammal in several surveys."

It's already an offence under the Wildlife and Countryside Act 1981 to kill a hedgehog. But conservationists and many MPs want them to be declared a protected species, so that it also becomes an offence to disturb or destroy the places where they live.

Speaking in Parliament, Mr Mitchell said: "This would ensure that their nesting sites, as well as the hedgehogs themselves, are protected from disturbance or harm, and would offer hedgehogs the same protection as hazel dormice, red squirrels, water vole, otters and all our bat species."

The MP warned: "Over the past two decades, hedgehog numbers across the UK have plummeted by 50% in rural areas and 30% in urban areas."

Other MPs calling for action to protect hedgehogs included Blaydon MP Liz Twist. She said: "The hedgehog has been voted Britain's most popular wild mammal in several surveys over the years. As we heard, since 2000 hedgehog numbers in the UK have declined by half in rural areas and by a third in urban ones.

"According to the Royal Society for the Prevention of Cruelty to Animals, the main reasons for the decline are the destruction of their shelters and habitats, increased levels of traffic, poorly planned roads and the use of pesticides. Those are all things that we can and should work to prevent. The hedgehog has been listed as vulnerable to extinction in the UK, conceivably within the next decade if nothing is done to reverse the decline."

Environment minister Rebecca Pow (a true friend of trees) said: "This Government are absolutely committed to ensuring that our native species thrive, as we take action to address the declines that we are all so sad about."

She added: "I am a great fan of hedgehogs, not least from reading all my children Mrs Tiggy-Winkle, the amazing Beatrix Potter book."

The Minister said she was "deeply concerned" by studies which have classed hedgehogs as vulnerable. She said the Government was reviewing laws designed to protect animals and would launch a consultation later in the year.

IN a similar vein, Claire Galloway reported on the Daily Record website that selfish campers are under fire after cutting down a tree for a fire at a Scots beauty spot.

Ben Lomond rangers took to social media to blast the punters after they slashed into a "living tree" for firewood. Pictures from the site showed a tree had been hacked into with a makeshift firepit left behind.

In a post on Facebook, they said: "Upsetting to have found this scene tonight on the lochside, having a safe and sustainable campfire is a great experience, but cutting down living trees for this purpose only causes harm and living wood doesn't burn. We would always suggest bringing wood with you or collecting only dead fallen wood to make a fire.

"On a positive note though, also seen some fire pits on the shingle by the lochside, well away from the vegetation and earth which is a safe way to have a fire."

Ben Lomond sees walkers flock to the area as one of the most popular mountains in Scotland and boasts stunning views of Loch Lomond.

Responding to the rangers, one furious Scot said: "Urgh makes me so angry and so sad"

"Spoils it for responsible campers", added another.

YOU may recall in last month's edition of Broadsheet I reported that Chantal Beck, 40, had sought permission to reduce the tree's height by 5m and spread from 15m to 6m.

Her daughter has a nut allergy and Ms Beck argued that the 17m tree in a neighbouring garden posed a health risk to her six-year-old daughter Beau who has

previously suffered a bad reaction.

However, South Norfolk District Council has now imposed a Tree Preservation Order. In its decision planners stated: "You may not therefore undertake the work as described in your original notification."

Moves to cut back the 100-year-old tree had split opinion with 17 people supporting the plans but 11 lodging official objections with some describing it as a "landmark" that contributes to the rural character of Trowse.

WRITING on the Southern Daily Echo website, Timothy Edgley reported that an appeal has been lodged against a council notice after a landowner felled an almost 100-year-old area of woodland.

Residents and leaders were left outraged when the owner of an area of woodland at Scoreys Copse, Horton Heath began pulling down trees without approval. Over a weekend in April, the area was cleared and trees were then collected and piled up before attempts were made to set them alight.

Action was later taken by Eastleigh Borough Council which included a stop notice and a Tree Replacement Notice which instructed the landowner that the trees that were taken down, some of which TPOs, were to be replaced.

Now though, an appeal against this notice has been lodged by the landowner who claims in the appeal documents that he was unaware of any TPOs on the trees. In the appeal, the landowner who is named as Mr James Barney, explains that the reasoning for the tree removal was in order to gain access to his building on the site so it could be used for maintenance of the woodland. He also says the work took place to provide an area that could be used for holiday let after a pre-application was submitted to the planning authority.

As part of the Replacement Notice, the council instructed that 650 trees would need to be replanted to replace what was pulled down, but the appeal states that this number is “unreasonable” and claims that 242 is considered a more “reasonable” figure.

Now though, the leader of the council, Cllr Keith House has said: “The landowner claiming he knew nothing about tree preservation orders is no excuse. The wanton destruction of this copse of trees was criminal damage and the council was right to take action. We have zero tolerance of this behaviour. I have every confidence the appeal will fail.”

MP for Eastleigh, Paul Holmes, added: “I have zero sympathy with Mr Barney’s appeal. Landowners should preserve and protect our trees and failing to check what protections were in place before felling trees at Scorey’s Copse is not an acceptable excuse. I hope that all the protected trees that were cut down illegally are replaced and I am pleased that the council is taking enforcement action.”

A NEW study has revealed that deforestation and climate change are altering the Amazon rainforest's ability to soak up carbon.

Matt McGrath, BBC Environment Correspondent, reported that significant parts of the world's largest tropical forest have started to emit more CO_2 than they absorb. The south-east is worst-affected, say scientists, with higher rates of tree loss and an increasing number of fires. Temperatures there have risen by three times the global average during the hottest months.

Areas of our planet that absorb more carbon from the atmosphere, for example, in the form of the greenhouse gas CO_2, than they store are known as sinks.

The role played by the lands and forests of the Earth in soaking up carbon has been a critical factor in preventing faster rates of climate change. Since the 1960s, these sinks have taken in around 25% of carbon emissions from the use of fossil fuels.

The Amazon, home to the world's largest tropical forest, has played a key role in absorbing and storing much of that carbon, but the growing impacts of climate change and deforestation are taking their toll on this crucial CO_2 sponge.

Earlier this year, a study showed that the rainforest in Brazil released about 20% more CO_2 into the atmosphere than it took in over the period from 2010-2019. This new paper underlines that change and finds that some regions of the rainforest were "a steadily increasing source" of carbon between 2010 and 2018.

A source of carbon is an area of the Earth that releases more carbon than it stores. The researchers used aircraft to take around 600 air samples above selected parts of the rainforest over the years of the study. They found a very clear division between the eastern and western parts of the rainforest.

"In the eastern part of the Amazon, which is around 30% deforested, this region emitted 10 times more carbon then in the west, which is around 11% deforested," said lead author Luciana Gatti, with Brazil's National Institute for Space Research (INPE).

"This is a huge impact, you know directly because we are emitting CO_2 to the atmosphere, which is accelerating climate change but also because it is promoting changes in the dry season conditions and stress to trees that will produce even more emissions. This is terrible negative feedback that increases the emissions much more than we knew."

The researchers say that the forest in the south-east of the Amazon have been very badly hit by deforestation and climate change. In this area, temperatures have increased in the two hottest months of the year by 3.07°C, around the same increase seen in the Arctic and around three times the global average.

"This is amazing," said Dr Gatti. "It's a complete surprise for the equator layer of the globe."

The researchers are worried that the changing climate is also interfering with rainfall, which they argue, has immediate consequences for Brazil.

Dr Gattisaid "This is very bad news for everybody but mainly for Brazil. We have lots of problems with lack of precipitation, such as electricity from hydropower becoming more expensive. There are also heavy losses in agriculture. We need to link this with Amazon deforestation and change the behaviour."

Other scientists who work in this field say that the latest findings are consistent with changes that a range of studies have already shown.

"Deforestation and degradation increase, while the carbon sink of intact forests is stable or is slightly increasing, so, finding a negative carbon budget is not so surprising” said Dr Jean-Pierre Wigneron from France's Institut National de Recherche Agronomiques (INRA).

Nancy Harris, from the World Resources Institute (WRI), who has co-authored previous research into the same area, said: "At the end of the day, debating whether the region already is a source, or is teetering precariously on the edge of becoming a source for carbon dioxide, misses the point.

"The science is now clear that the Amazon is in trouble. High emissions from deforestation have plagued the region for decades, and climate change impacts on forests like drought, fire and heat-induced die-offs will become more and more common over the coming decade."

The research has been published in the journal Nature.

WRITING on the Bolton News website, Peter Magill reported that The Woodland Trust has issued a plea to people not to light fires at its countryside sites.

The 2018 Bolton moorland blazes left the Trust with a bill of more than £1m and officials, who oversaw the clean-up at Smithills and surrounding areas, say there have been nine fire at their other sites elsewhere this year alone.

Trust chiefs have launched a national 'Love Your Woods' campaign which aims to encourage people visiting its woodlands and moorlands to leave no trace and help the protection of its special sites. Barbecues and small fires on moorland and woodland can easily get out of control, they say, and rip through the countryside, damaging habitats and wildlife.

The Smithills blaze saw a third of the 1,700-hectare site affected, killing around 2,000 trees, wiping out habitats and displacing rare birds such as curlew. It took weeks for the fire service and the Woodland Trust to bring the fire under control and costs for the ongoing recovery are rising above £1m.

This year also saw a fire at Cave Hill in Northern Ireland which damaged a large area of the site, while at Castle Hills in Northumberland and Martins haw in Leicestershire there have been a series of fires.

Al Crosby, the trust’s regional director for northern England, said: “Our sites are a wonderful place to visit with so much diversity - from mountainous Ben Shieldaig in Scotland and the moorlands of Smithills, to community woods and lowland forests towards the south of England, and everything in between. We of course want people to enjoy them but also to take care of them, which is why we have launched this campaign."

At Smithills the charity is rewetting moorland to keep it in a more moist condition to boost a healthy habitat and the growth of sphagnum moss, while birds such as curlew, snipe and golden plover have started to make a return.

The trust estimates it will take 10 to 15 years before the landscape will get back to how it was before the fire. It will continue to restore the site and plant more trees, it said.

FINALLY this month, I want to remind you that we shall soon be submitting our bid to the The Lord Lieutenant for Norfolk for trees and hedgerows to celebrate the Queen’s Platinum Jubilee.

Planting may take the form of:

- A Platinum Jubilee Avenue of medium-size, ideal for, large estates, new housing developments and parishes;
- A Platinum Jubilee Copse on private land or land allocated by the County or District Council; and/or
- A Platinum School Tree for the students to plant.

I will be assembling our bid over the coming weeks and ask you to let me know your requirements as soon as possible.

Surely, every school should be able to find space for a tree to commemorate such a wonderful occasion? Surely, every parish will wish Her Majesty’s wonderful achievement by planting a tree? If you plant an English oak, then future generations in, say 800 or even 1,000 years, will know how lucky we have been to have such a wonderful monarch.

So come on. Let me have those requirements as soon as you can. If you have any questions then you know where I am.

All the best and continue to stay safe

John Fleetwood

Could US and Canada See Worst Wildfires Yet?

By the BBC News Reality Check team

AFTER record temperatures, western parts of the US and Canada are bracing themselves for the annual wildfire season. There are warnings that this season could be another highly destructive one, so we've looked at why that might be. Experts told us the potential for a record-breaking wildfire season is significant.

Dr Mike Flannigan, professor of wildland fires at the University of Alberta, said that fires need three ingredients: vegetation or fuel; ignition (caused by humans or lightning); and hot, dry and windy weather.

Dr Flannigan added: "It really depends on the day-to-day weather, but the potential is sky-high for parts of Canada and the American west as they are in a multi-year drought. "

The US drought monitor - a partnership between the Department of Agriculture and other expert organisations - says half the nation is under some form of drought, with the most severe in western states.

In June this year, parts of western Canada recorded their highest-ever temperatures.

The village of Lytton in British Columbia (BC) province made headlines after it reported Canada's record temperature of 49.6°C. This set off a series of wildfires, which puts the amount of land burnt in the region way ahead of the average for this time of year.

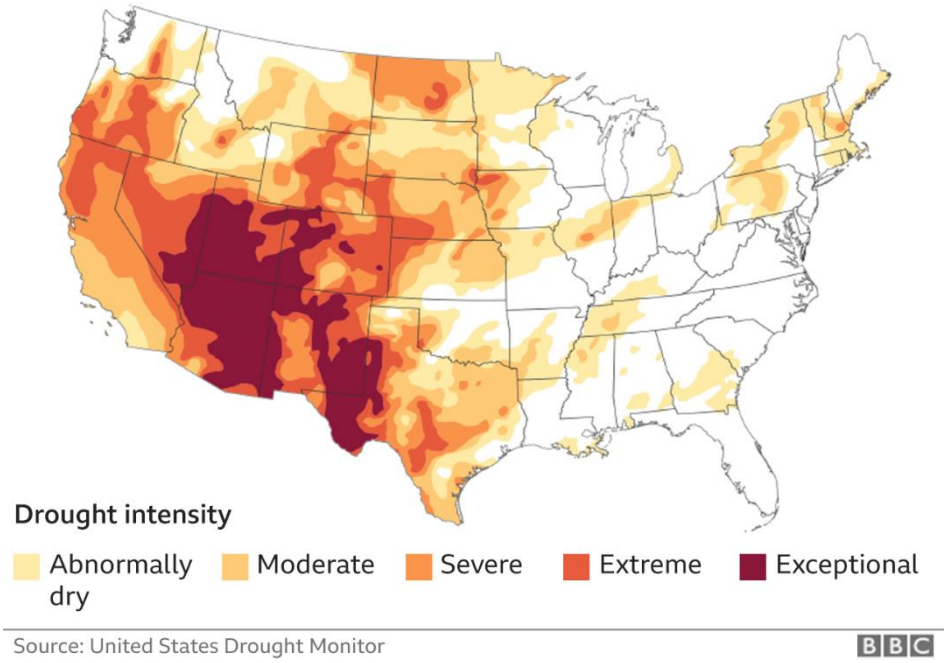
Western US states are also experiencing soaring temperatures and wildfires.

Another concern is the lack of compressed and hardened snow (known as snowpack) in mountainous areas this year because of higher temperatures. This usually acts as a barrier to burning, and alleviates drought conditions.

Looking at the Sierra Nevada Mountain range in July 2019 compared with July this year, it can be seen how snow cover is significantly reduced in 2021. It was at a similarly low level in July 2020, a year in which California experienced record-breaking wildfires.

Dr Susan Prichard, from the School of Environmental and Forest Sciences at the University of Washington, says: "That means that vegetation from low to high elevations is more predisposed to burning."

The fire season normally starts in the south-west of the US, in states such as Arizona where there are several active large fires currently burning, according to a national fire database. Later in the summer, fires spark further north in California and then in Oregon and Washington. However, there are signs that the US fire season has started early, says Dr Prichard.



In Arizona, the total acreage burned this year has already surpassed 2019 and 2018. Last year saw the biggest area burned for a decade (with the exception of 2011).

"Fires are already starting in northern California, and conditions are tinder dry in eastern Oregon and Washington as well," Dr Pritchard added.

In California, 42,400 more acres burned so far this year compared with the same period in 2020, according to estimates published by Cal Fire (California Department of Forestry and Fire Protection).

Last year, more than four million acres burned in California - a record for the state.

Dr Prichard says: "So far, we don't have the huge conflagrations that we had along the west coast (in the US) last summer, but it's very early in what is looking like an exceptionally dry and long fire season."

Year-on-year, the amount of land burned fluctuates considerably, but the trend across the US has been upwards since reliable data was first recorded in the 1980s.

About 1.8 million acres have burnt this year, already more than was recorded in the same period last year, but this is below the 10-year average of 2.8 million acres.

In Canada, there are large year-to-year fluctuations for the amount of land burnt, but research has shown the 10-year rolling average over the last decade is more than double what it was in the 1970s.

Dr Flannigan says: "If you do a 10-year running average, the annual area burned is about one million or just over in the late 60s and early 70s and today it is about 2.6 million hectares."

The total area burned across Canada at this stage in the 2021 fire season so far is below the 10-year average - but in British Columbia, fires have already burned more than 90,000 hectares, which far exceeds the average for that province.

"For BC, typically their fire season starts mid-later July, and includes August and early September, so this is really early to have fires of this size and intensity," says Dr Flannigan.

In the western US and Canada, lightning rather than human activity is increasingly the main immediate cause of wildfires.

Scientists believe that climate change is a factor contributing to more intense, and longer-lasting wildfire seasons because of warmer, drier conditions.

Dr Flannigan says: "Warm temperatures means more lightning, longer fire seasons and drier fuel, so on average we are going to see a lot more fire, and we are going to have to learn to live with fire."

Linking any single event to global warming is complicated, but a study by climate researchers said the heat that scorched western Canada and the US at the end of June was "virtually impossible" without climate change.

Reporting by Jack Goodman and Jake Horton

US Wildfires' Increasing Toll on Wildlife

An article by Quinn McVeigh published on Environmental Health News

IN SEPTEMBER 2020, the 7-year-old female mountain lion was dehydrated and burnt on the bottom of her paw pads. The pain made it unbearable to walk. According to data from a satellite tracking collar and camera footage, seven months later she is chasing deer, mating, and has even travelled hundreds of miles through the San Gabriel Mountain wilderness in southern California, on those once lifeless feet.

"I'm really proud of that cat," Deana Clifford, a senior wildlife veterinarian and epidemiologist for the California Department of Fish and Wildlife (CDFW), told Environmental Health News (EHN). "It shows you how resilient those animals are if given a chance."

She was found at the edge of a Monrovia resident's backyard pond, where she crawled in search of water during the Bobcat Fire, one of the largest wildfires in Los Angeles County history at 115,000 acres.

After she was transferred to the CDFW's Wildlife Investigations Laboratory in Sacramento, Clifford and a team of vets from University of California, Davis and CDFW spent a month monitoring her progress before releasing her into the wild. To accelerate healing, they applied a special treatment using the skin of tilapia, which can relieve pain, provide moisture, and prevent scarring for burn wounds.

Eventually, Clifford and the team saw her entire attitude change. She wanted to escape her enclosure. She was ready to go home. This was the first adult mountain lion that Clifford ever treated for burn injuries.

In 2020 the US saw around 57,000 wildfires. More than 10 million acres were burned, thousands of homes were demolished, there were 46 direct deaths, up to 3,000 indirect deaths from smoke, and carbon dioxide emissions from fires were 3-times higher than normal. It was one of the worst wildfire seasons in US history.

The total impacts on fire-affected animals are still a mystery, but the results were not pretty, based on the unprecedented number of injured creatures brought to California's veterinary clinics.

The Wildlife Disaster Network, a partnership of California vets formed during the 2020 wildfire season in California to treat the influx of burned animals, cared for 22 patients from 10 different fires. While this does not illuminate the true toll of California's summer wildfires, each animal had to be met with all hands-on deck.

"They mostly came in with burn injuries, very commonly to their face and paws, some of them had eye injuries, and smoke inhalation was also common," Lorraine Barbosa, a veterinarian for the Oiled Wildlife Care Network and a member of the Wildlife Disaster Network, told EHN.

According to Barbosa, the 2020 wildfire season resulted in the most animals cared for by California vets of any recorded fire season.

Now in 2021, about 98% of land in Western states is in a drought, according to the National Interagency Fire Center. The forces of climate change are creating the perfect conditions for more frequent and intense wildfires. Over the last few decades, annual large fires in the American West have tripled, and wildfire season has become more than three months longer, according to the Environmental Defense Fund.

EHN talked to California vets who cared for affected animals in 2020 to get a sense of the toll that more frequent and intense wildfires are having on wildlife.

About 400 miles south of the CDFW clinic in Sacramento, "Burnie" the racoon got a second chance after being trapped in the Blue Ridge Fire, which burned more than 14,000 acres in Orange and San Bernardino counties.

Burnie, a large adult male, was found caught in an abandoned Havahart animal trap by an evacuated property. The fire surrounded him, leaving first- and second-degree burns on his paw pads and legs. On 2 November, he arrived at the Wetlands and Wildlife Care Center of Orange County.

"When he came in he was quiet, very dehydrated, he smelled like smoke," executive director Debbie McGuire told EHN. "The smoke and soot have really bad elements in it, so you have to get that off their fur."

According to Barbosa, toxics from smoke and soot infiltrate the bloodstreams of these animals through inhalation or through licking their fur to clean themselves. "Once it gets into their system, it can cause a number of issues including kidney and liver toxicity and heart abnormalities," Barbosa said.

McGuire and her veterinary team washed the ash off, cleaned wounds with a sterile saline flush, and applied Thermazene cream, a treatment originally developed for humans with severe burns. After 17 days, Burnie was released near the top of the Santa Ana River, near where he was first discovered.

During the 2020 wildfire season, veterinarians like Jamie Peyton, Chief of Integrative Medicine Service at the University of California, Davis Veterinary Medical Teaching Hospital, had to make tough decisions. "Some of the animals we rescued, I ended up having to euthanize," Peyton told EHN.

As the North Complex Fire burned through 318,935 acres of Plumas National Forest, somebody noticed a bear crawling near the roadside. When bears burn their feet badly, they tend to walk on their elbows, Peyton said.

After the man reported the bear's location, Peyton, her husband, another veterinarian, and a biologist mobilised. When the team arrived, the bear wasn't around. "Our motto is we put on our backpacks and we go tracking," Peyton said.

They hiked through the burned, rugged wilderness for about an hour, following bear footprints that had no toes. They found the injured bear by a stream. They sedated him, and Peyton's husband and the other veterinarian carried him for nearly two miles.

Back at the road, the team examined him to find that he lost all toes on his front two feet, he had third-degree burns reaching down to his bones, and some bones were sticking out. "The reality was he would never be releasable again," Peyton said.

Although Peyton and the team had to euthanize the bear, he will be part of future research focused on identifying the toxics animals are exposed to during fires. "Even the unsuccessful stories still have a role and they're still important," Peyton said.

The 2020 wildfire season also took a toll on domesticated animals. "Some people can evacuate their animals before the fire when they get a warning to evacuate," said Lais Costa, team coordinator for the UC Davis Veterinary Emergency Rescue Team, but this isn't the case for everyone.

According to Costa, domesticated cats are notorious for getting caught in fires. Cats often panic when their owners panic, leading them to run away during stressful events such as wildfires. "They're the ones that get the worst burns in terms of house pets," Costa said.

Dogs, however, tend to be evacuated easier. They tend to latch onto their owners during these stressful situations.

In the American West, drought conditions are setting up what could be one of the driest years in a millennium. Eight western states have areas experiencing exceptional drought conditions, meaning high forest mortality, drying wetlands, and low survival of native plants and animals, according to the US Drought Monitor.

"It is one of the major impacts of climate change that we're seeing," Nikil Advani, director of climate, communities and wildlife at the World Wildlife Fund (WWF), told EHN. "Fire conditions

are exacerbated by it being extremely dry and also very hot, and it creates what we call these 'tinderbox conditions.'"

During severe wildfires, some animals know how to escape, but urbanisation has made this more difficult. "As humans, we've destroyed so much habitat and we've confined species to these little isolated pockets," Advani said. "If those areas get struck by a fire, they often don't have anywhere to go."

For Barbosa, this human destruction drives her passion for healing wildlife communities during fire season. "We have some responsibility to mitigate the effects of these disasters we're unfortunately helping to cause," Barbosa said.

Why North America's Killer Heat Scares Me

By Roger Harrabin, the excellent BBC Environment Analyst

WE'VE just enjoyed our first blissful sleepover weekend with our 20-month granddaughter, Hazel, so maybe that softened me up. Or perhaps it was a week's leave away from the news that rusted my BBC armour of emotional detachment from the climate story. Either way, I confess to a gut-tightening sense of foreboding when Hazel left and I caught up with North America's killer heat dome on TV.

That's not because new record temperatures were set in the north-western US and Canada. That happens from time to time. No, it's because old records were smashed so dramatically.

The previous all-time Canada record of 45°C was set in the 1937 Dust Bowl era when, like this year, the parched ground failed to mitigate temperatures. Normally records like this are over-topped by a fraction of a degree, but this year the former high was obliterated on three days running.

The final temperature in the town of Lytton was fully 4.6°C higher than the old record. Emissions from human activities inarguably contributed to the rise, increasing global average temperature by about 1.2°C since the late 1800s.

Climatologists are nervous of being accused of alarmism, but many have been frankly alarmed for some time now.

"The extreme nature of the record, along with others, is a cause for real concern," says veteran scientist Professor Sir Brian Hoskins. "What the climate models project for the future is what we would get if we are lucky. The model's behaviour may be too conservative."

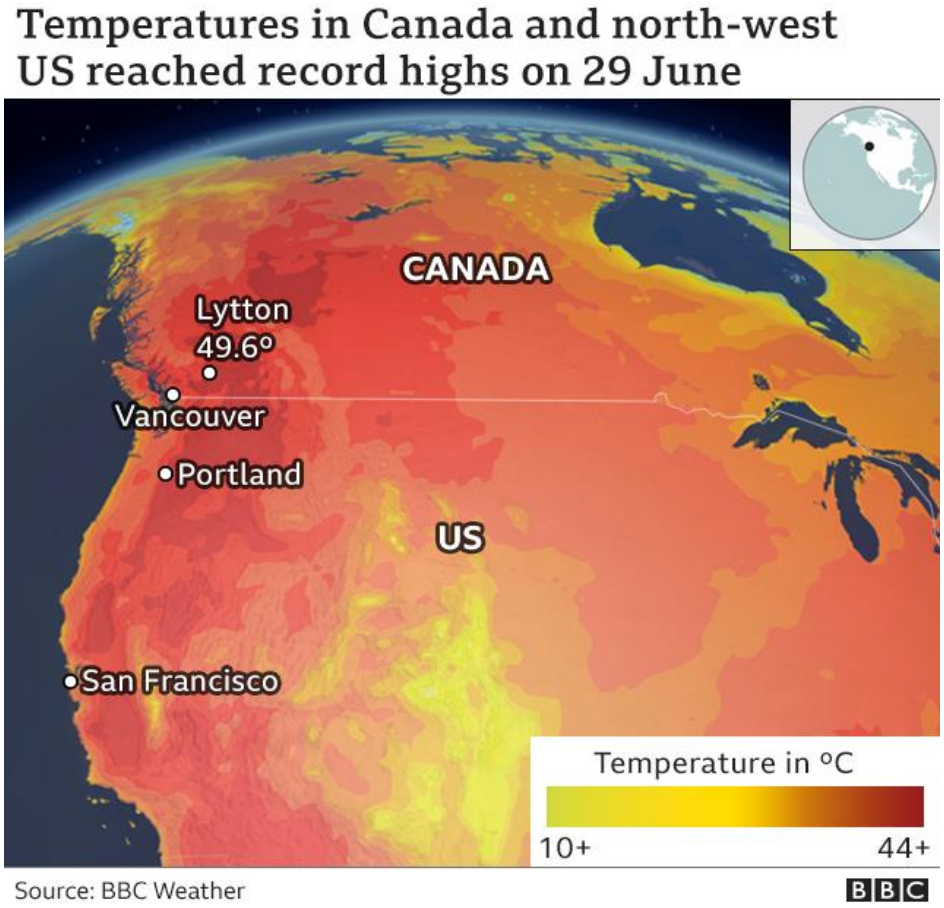
In other words, in some places it's likely to be even worse than predicted.

Computer models are what scientists use to try to second-guess the future behaviour of Earth's climate, but they take a very broad look across the global temperatures. They don't focus in on smaller areas where the projected temperature extremes may be over-topped… extreme extremes, if you like.

Scientists are now striving to predict some of these crazy weather events that are currently taking policy-makers by surprise. It's not just heat waves, but also pulses of torrential rain that cause devastating floods on a local level. Drains were built when no-one thought a harmless natural gas like CO_2 could wreak havoc.

The UK Met Office hopes its shiny new mega-computer will be able to make projections on a much more closely defined scale, although some will be sceptical about its ability to do that. Meanwhile, temperatures keep rising and shifting scientific goalposts. What's more, Canada's extreme extreme (sic) was cranked up by a global temperature rise of just 1.2°C so far on pre-industrial levels.

However, the world is probably heading for 1.5°C of heating early next decade, and temperatures will push onwards to 2°C and above unless policies radically change. What do we imagine things will be like with a rise of 2°C, which was until recently considered to be a relatively "safe" level of change?



Baroness Worthington, a lead author on the UK's Climate Change Act, told me: "Concerned scientists are no longer concerned. They are freaked out. They're worrying there might not be a 'safe landing' on the climate. We are working on the idea of safe carbon budgets (the amount of carbon we can put into the atmosphere without badly disrupting the climate), but what if there is no safe carbon budget? What if the 'safe' carbon budget is zero. We can't sugar-coat the potential realities of this."

Politicians are working to avert the worst of those potential realities, but even the former UK prime minister Margaret Thatcher remarked in the late 1980s that making such an experiment with our only planet was folly. In 1989 she riveted the UN with her warning that greenhouse gases were "changing the environment of our planet in damaging and dangerous ways".

Mrs Thatcher, who was formerly a research chemist, continued: "The result is that change in future is likely to be more fundamental and more widespread than anything we have known hitherto. It is comparable in its implications to the discovery of how to split the atom. Indeed, its results could be even more far-reaching. "It is no good squabbling over who is responsible or who should pay. We shall only succeed in dealing with the problems through a vast international, co-operative effort."

This was extraordinarily prescient and her words were even more devastating from the lips

of a towering, right-wing world leader who couldn't be dismissed as a fretful hippy. If the world had heeded her warning back then, imagine where we would be now?

However, Thatcher's views were challenged by climate "sceptics". Some of them funded by a decades-long campaign of disinformation from fossil fuel firms.

Rich nations fixated on economic growth rather than saving the planet from a hypothetical threat, and developing economies asserted their "right" to pollute the air just as rich nations had done. Wealthy countries stinted the cash they offered to poor nations to get clean technology and international negotiations consistently failed to deliver the difficult and sweeping changes Mrs Thatcher thought necessary.

At last many leading nations are getting round to devising policies to reduce emissions over coming decades. It's not just the heat dome they're worried about. We've learned recently about climate extremes in the Antarctic, the Himalayas and the Arctic.

Some scientists are warning that areas of the world will become uninhabitable if current trends continue. So what are our leaders doing to keep us safe?

Well, they're talking a good show, and doubtless some really mean to curb climate change, but the impacts of global heating are happening right now, whereas major nations plan to phase out emissions by 2050.

President Biden says CO_2 will be halved against 2005 levels this decade, but his proposed investments in clean technology are being resisted by Republicans. GM and others have promised to sell only vehicles that have zero tailpipe emissions by 2035, but the president has set no date for electrifying the US car fleet.

What's more his climate envoy John Kerry has attracted criticism for insisting that US lifestyles don't need to change, whereas experts say protecting the climate requires new technology as well as behavioural changes such as eating less meat and driving smaller cars.

Furthermore, there's a gap in the policies of even a world-leading nation such as the UK, where the government plans a £27bn programme of road-building and, even though rail use has plunged since the pandemic, Boris Johnson is spending £100bn+ on the HS2 rail project that won't be carbon neutral until around the end of the century - no-one knows for sure.

The worlds of technology and business are showing some positive signs. The cost of solar and wind power, for instance, is plummeting, but these still only supply around 14% of the world's total energy demand, according to the renewables agency, IRENA.

Meanwhile a fractured gas pipe in the Gulf of Mexico has turned the ocean into flames and in London an investment trust for green industries failed to raise its minimum funding and was scrapped and in Asia 600 new coal fired power stations are planned, although admittedly, some are being withdrawn as investors realise at last that coal's a poor long-term bet.

Against this backdrop the world's multi-billionaires are competing to use vast amounts of energy to put tourists into Space. That's energy that could be tackling climate change.

Here's the problem. The worlds of policy and business are definitely waking up to the climate crisis, but some changes in the natural world appear to be outstripping society's responses.

It looks as though Mrs Thatcher was right - we needed drastic action decades ago.

Tomorrow I'll return to coolly dissecting intriguing policy issues but today with Hazel at the back of my mind, please excuse me this brief visit to my more emotional side.

In my 30+ years of reporting on the climate I've always taken a risk perspective on stories, because Mrs Thatcher was right that there's only one planet. And I want Hazel and her own future grand-children to enjoy it.

I used to employ the Twitter hashtag #Rollthedice. Now I've changed it to #Playingwithfire.

Ministry of Defence Under Fire for 'Inventing Rules' to Sell Wildlife Haven

An article by James Tapper published on www.theguardian.com

THE Middlewick Ranges are an ecological marvel by the standards of 21st-century Britain. The army firing range near Colchester, Essex, has been untouched by a plough for nearly 200 years, allowing skylarks and nightingales to feast on the threatened invertebrates and insects that thrive in the rare acid grassland. Yet a plan to sell off the ranges to build more than 1,000 homes has prompted accusations from campaigners that the Ministry of Defence (MoD) has rewritten environmental protection rules to suit its case.

Acid grassland – named after the acidic soil that supports fine grasses and lichens – has almost disappeared from England and is protected under guidelines from the Department for Environment, Food and Rural Affairs (Defra).

Planning rules allow developers to build on some types of rare land, including fens, wetland and woodland, so long as they offset the loss by creating replacements. Defra's Biodiversity Metric allows them to calculate how to do that.

"Under the Defra metric, it says that the score is too high to allow development," said Richard Martin, from the Save the Middlewick Ranges group. "They couldn't use it, so they came up with their own one. It's crazy."

The MoD's property arm, the Defence Infrastructure Organisation, agreed the use of a "bespoke metric" with Colchester borough council to push through outline permission to develop the 86 hectare (215-acre) site under the plan. Even worse, according to the campaigners, is how the MoD proposes to replace the acid grassland, by converting farmland nearby.

"They want to put sulphur into the land," Martin said. "There's a little brook that runs next to it and all the lands drain into that brook and that flows into Colne Marshes, which is a site of special scientific interest. So you're going to put sulphur in the rainwater that flows into a SSSI wildlife site."

The campaigners have been supported by Essex Wildlife Trust, which calls Middlewick Ranges "a major ecological asset" with "precious habitats essential to nature's recovery", adding: "We cannot afford to lose them."

The campaigns resulted in a planning inquiry into how the ranges were added to the local plan, which concluded its hearings earlier this year.

Rosie Pearson, a founder of the Community Planning Alliance, which has advised the campaigners, said: "From a biodiversity perspective, this should be ringing a jumbo alarm bell. The developers couldn't do what they wanted using the official metric, so they made one up. For the rare species inhabiting the site this could be the death knell, unless the planning inspectorate recognises that what is being attempted is deeply flawed."

Pearson said developers have been manipulating biodiversity offsetting, adding: "Skylarks are offered 'offsite plots' when their meadows are concreted over. Large swathes of ancient woodland have been described as 'copses' and arable land is largely dismissed as meaningless for wildlife in the metric."

She said ecological assessments should be done by an independent body, funded by developers, adding: "Local communities should be able to request a second opinion, also funded by the developer, if they have concerns about a report. And government proposals to provide better funding to local authorities for ecology services should be followed through."

The MoD has defended its plans, saying 63% of the land would be reserved for green open space. It has yet to sell the site to a developer, who would still need planning permission, but if the plan is upheld, opposition would be limited to discussing which parts of the ranges could be built on.

There are more than 460 environmental campaigns across Great Britain according to the

Community Planning Alliance, which is concerned that new planning rules, blamed by Tory activists for the Lib Dem victory in the Chesham and Amersham by-election last month, will make it harder for local groups to stop similar developments.

The MoD's plans rely on a similar project to create acid grassland at the RSPB's Minsmere reserve in Suffolk.

Adam Rowlands, the RSPB's Suffolk area manager, who is not involved in Middlewick Ranges dispute, said that creating the acid grassland at Minsmere had taken about 10 years. "It was not an easy task," he said. "There was quite an intensive period of establishment, scarifying the soils, sowing seed mixes. You can't just rewild it, otherwise it will turn into scrubland."

A spokesperson for Colchester borough council said: "Middlewick Ranges is allocated in the Emerging Local Plan for mixed use including housing, open space and community uses.

"The future of the ranges has yet to be finalised, as we continue to await the Local Plan Inspector's report, but it will be important to ensure residents have an opportunity to comment if the site is included in the Plan.

"Future master planning of the site will need to be undertaken, which will include open space and increased tree-planting, to enhance the biodiversity value of the ranges for future generations of residents to enjoy.

"Whilst we are unable to comment on DIO's specific plans for the site, the council remains fully committed to preserving and enhancing all forms of biodiversity in the borough to the greatest extent possible."

The MoD said: "We continue to work with the council to develop plans for the site, including working with experts to find innovative means to help secure biodiversity. The techniques will be thoroughly tested as part of the examination process."

UK Government's 'Toothless Policies' Failing to Protect Nature

By Matt McGrath, BBC Environment correspondent

A COMMITTEE of MPs has lambasted the UK government's approach to nature, saying it is failing to stem huge losses of plants and species. Their report says that the UK has the lowest remaining levels of biodiversity among the world's richer nations. The MPs say the government spends far more on exploiting the natural environment than it does conserving it. They're calling for legally binding targets for nature similar to the UK's climate laws.

Across the globe, a massive decline in the numbers of plant and animal species is ongoing, with up to a million currently under threat of extinction.

According to the Environmental Audit Committee (EAC), the UK reflects this international picture, with 15% of species under significant threat. Over the past decade, the UK has failed to meet a raft of international targets to preserve nature, say the MPs.

Among the richest G7 nations, the UK now has the lowest level of biodiversity

According to the report, existing policies and targets are simply inadequate and not joined up across government. In recent months, the government has outlined a state of nature target to halt the decline in England by 2030, but MPs say that legally-binding interim targets are needed for the plan to work, and they should measure species distribution, extinction risk, habitat condition and extent.

While the committee welcomed the government's pledge to protect 30% of the UK's land and seas by 2030, it said "simply designating areas as protected is not enough". These areas are often poorly-managed, say the MPs, and previous recommendations on how to improve them have not been taken up.

The MPs are also calling for a ban on peat products to be brought forward, along with the removal of any subsidies that harm nature.

"Although there are countless government policies and targets to 'leave the environment in a better state than we found it', too often they are grandiose statements lacking teeth and devoid of effective delivery mechanisms," said the EAC chair, Philip Dunne MP.

"We have no doubt that the ambition is there, but a poorly-mixed cocktail of ambitious targets, superficial strategies, funding cuts and lack of expertise is making any tangible progress incredibly challenging."

The committee says that all government departments must consistently factor nature into their policy decisions. Without effective policies, the report says that "nature will continue to decline and the next generation will inherit a more depleted, damaged natural environment".

Responding to the report, Environment Secretary George Eustice said: "Our Environment Bill will deliver the most ambitious environmental programme of any country on Earth and drive forward action to protect nature and improve biodiversity, including through a target for species abundance for 2030, aiming to halt the decline of nature.

"This is alongside our guaranteed £640m investment in the Nature for Climate Fund for woodland creation and peat restoration, plans to treble tree planting before the end of this Parliament, and increased protections for England's waters through pilots of Highly Protected Marine Areas."

Mr Eustice said the government would respond to the EAC review in due course.

Green groups have welcomed the tough language in the report.

"Transformative change to reverse nature's decline, as recommended by the Environmental Audit Committee's scathing report, requires much more than standing on a podium spouting fine words," said Rebecca Newsom from Greenpeace UK.

"We need legally-binding short-term targets, proper enforcement of environmental protections on land and at sea, with the funding to match, and a fundamental overhaul of government policy and legislation which puts nature at the heart of decision making."

The report has been issued ahead of a number of key political summits in the upcoming months that will tackle the crises in climate change and species loss.

The threat to biodiversity must be treated with urgency and ambition and raised up the political agenda, say the MPs. This has already happened with climate, it now needs to happen to nature as well.

Key recommendations in the report

Just as the Climate Change Act enshrines legally-binding targets to cut carbon emissions, there should be legally-binding interim targets for a range of government policies to halt the decline of nature

The government should find alternatives to GDP as mean of measuring economic success, for example moving towards a concept of inclusive wealth, which would measure the UK's produced, human and natural capital

A severe shortage of trained ecologists is hampering efforts by local governments to oversee biodiversity policies - the committee recommends investment in training and skills as part of the government's plans for green jobs

A legally-binding target for soil health should be established

The committee supports the establishment of a Natural History GCSE in schools and recommends nature visits and teaching outside, to ensure that future generations value and protect biodiversity.

Sixteen Key Changes to National Planning Policy Framework

I AM once again indebted to Jo Parmenter, this time for forwarding to me an e-mail from Dianne Western, Director, at The Landscape Partnership, containing strengthened requirements on design quality and the use of trees in new developments, as well as revised policies on plan-making, removing statues and opting out of permitted development (PD) rights are among the alterations in the revised version of the National Planning Policy Framework (NPPF).

1. Measures to improve design quality, including a new requirement for councils to produce local design codes or guides

Among the key changes to the NPPF are updated policies aiming to improve the design of new developments, in response to the findings of the government's Building Better, Building Beautiful Commission.

These include:

- changes to the overarching social objective of the planning system (para 8b) to include the fostering of “well-designed, beautiful and safe places”. The old version had merely required “a well-designed and safe built environment”.
- Introducing a new test that development should be well-designed (para 133). This says that “development that is not well designed should be refused, especially where it fails to reflect local design policies and government guidance on design, taking into account any local design guidance and supplementary planning documents such as design guides and codes”.
- The test goes on to say that "significant weight" should be given to "development which reflects local design policies and government guidance on design, taking into account any local design guidance and supplementary planning documents such as design guides and codes". Significant weight should also be given to "outstanding or innovative designs which promote high levels of sustainability, or help raise the standard of design more generally in an area", new para 133 says.
- the new para 128 states that in order to "provide maximum clarity about design expectations at an early stage", all local planning authorities "should prepare design guides or codes consistent with the principles set out in the National Design Guide and National Model Design Code, and which reflect local character and design preferences".

2. The term "beautiful" has been added to the NPPF but should be regarded as a "statement of ambition" rather than a policy test

The word ”beautiful” has been added to the NPPF five times in relation to planning for new buildings and places. According to yesterday's MHCLG consultation response, the term has been included in response to the recommendations of last year's Building Better, Building Beautiful Commission. It adds: "This should be read as a high-level statement of ambition rather than a policy test. The government would encourage local planning authorities, communities and developers to work together to decide what beautiful homes, buildings and places should look like in their area. This should be reflected in local plans, neighbourhood plans, design guides and codes, taking into account government guidance on design."

3. An emphasis on using trees in new developments

The updated NPPF introduces a new para 131 stating that “planning policies and decisions should ensure that new streets are tree-lined, that opportunities are taken to incorporate trees elsewhere in developments (such as parks and community orchards), that appropriate measures are in place to secure the long-term maintenance of newly-planted trees, and that existing trees are retained wherever possible". It goes on to say that applicants and local planning authorities "should work with local highways officers and tree officers to ensure that the right trees are planted in the right places”.

4. Adjusting the presumption in favour of sustainable development for plan-makers.

The NPPF's presumption in favour of sustainable development for plan-makers (para 11a) says that "all plans should promote a sustainable pattern of development that seeks to: meet the development needs of their area; align growth and infrastructure; improve the environment; mitigate climate change (including by making effective use of land in urban areas) and adapt to its effects”.

5. New limits on the use of article 4 directions to restrict PD rights

The new para 53 states that such directions, which remove PD rights in specific areas, where they relate to residential conversions, should only be used where it is "essential to avoid wholly unacceptable adverse impacts”, for example the "loss of the essential core of a primary shopping area which would seriously undermine its vitality and viability". In "all cases”, article 4 directions should be "based on robust evidence, and apply to the smallest geographical area possible”.

6. Councils should 'retain and explain' statues rather than remove them

A completely new para 198 states: “In considering any applications to remove or alter a historic statue, plaque, memorial or monument (whether listed or not), local planning authorities should have regard to the importance of their retention in situ and, where appropriate, of explaining their historic and social context rather than removal."

7. Encouraging faster delivery of further education colleges, hospitals and prisons

A new para 96, which was not included in the January draft version, states: "To ensure faster delivery of other public service infrastructure such as further education colleges, hospitals and criminal justice accommodation, local planning authorities should also work proactively and positively with promoters, delivery partners and statutory bodies to plan for required facilities and resolve key planning issues before applications are submitted."

8. The United Nations' climate change goals have been added.

Para 7 in the section on "Achieving sustainable development" states that "the purpose of the planning system is to contribute to the achievement of sustainable development". It now adds: "At a similarly high level, members of the UN, including the UK, have agreed to pursue the 17 Global Goals for Sustainable Development in the period to 2030. These address social progress, economic well-being and environmental protection."

9. Development plan policies for proposed large new settlements should have a 30-year timescale rather than the usual 15.

In para 22 in the section on plan-making and the subsection on "strategic policies", it states that strategic policies "should look ahead over a minimum 15 year period from adoption, to anticipate and respond to long-term requirements and opportunities, such as those arising from major improvements in infrastructure". This retains the wording from the old version, but a new sentence adds: "Where larger scale developments such as new settlements or significant extensions to existing villages and towns form part of the strategy for the area, policies should be set within a vision that looks further ahead (at least 30 years), to take into account the likely timescale for delivery." The addition of the phrase "significant extensions to existing villages and towns" is an update to January's draft version.

10. Aspects of policy concerning planning and flood risk are clarified

The section on "planning and flood risk" now spells out that plans should manage any residual flood risk by using opportunities provided by new development and "improvements in green and other infrastructure to reduce the causes and impacts of flooding (making as much use as possible of natural flood management techniques as part of an integrated approach to flood risk management)".

According to a written ministerial statement by Jenrick on Tuesday, the changes around flood risk and climate change "are an initial response to the emergent findings of our joint review with the Department for Environment, Food and Rural Affairs (DEFRA) of policy for building in areas of flood risk. For instance, highlighting the opportunities from improvements in green infrastructure and natural flood management techniques. We are also amending guidance on flood risk to emphasise that checks done by local authorities should steer new development to areas with the lowest risk of flooding from any source."

11. Tightened rules governing when isolated homes in the countryside can be acceptable

In para 80 in the rural housing section, it sets out the circumstances in which isolated homes in the countryside can be acceptable.

Previously, it said such homes would be acceptable if the design was "truly outstanding or innovative" - now the word "innovative" has been removed.

12. MHCLG is considering a further review of the NPPF to support its net zero commitment

The new version of the NPPF does not mention the government's commitment to achieving net zero emissions by 2050. However, in response to concerns raised, the MHCLG consultation response states that it is "committed to meeting its climate change objectives and recognises the concerns expressed across groups that this chapter should explicitly reference the net zero emissions target. It is our intention to do a fuller review of the framework to ensure it contributes to climate change mitigation/adaptation as fully as possible, as set out in the [planning white paper]." More details here.

13. It spells out that ten per cent of all major housing schemes should comprise affordable home ownership properties

The new NPPF amends para 65. It adds the words "total number of" so that it now says: "Where major development involving the provision of housing is proposed, planning policies and decisions should expect at least ten per cent of the total number of homes to be available for affordable home ownership". This, the MHCLG said in January, is "to address confusion as to whether the 10% requirement applies to all units or the affordable housing contribution".

14. It introduces a new transport test for new settlements and urban extensions

The revisions introducing at para 73 a new requirement for new settlements and urban extensions that they should now include "a genuine choice of transport modes".

15. Policies on improving biodiversity have been strengthened.

In chapter 15 (Conserving and enhancing the natural environment), para 180d (previously 174d) now says that "opportunities to improve biodiversity" should be "integrated" into a scheme's design. Previously, it used the term "encouraged".

16. It clarifies that neighbourhood plans can allocate large sites

The new framework amends para 70 to, in the words of MHCLG when the draft version was published in January, "remove any suggestion that neighbourhood plans can only allocate small or medium-sized sites". The final revised version, in line with the draft, says that "neighbourhood planning groups should also give particular consideration to the opportunities for allocating small and medium-sized sites". The old version said that such "should also consider to the opportunities for allocating small and medium-sized sites". The consultation response says the government "is satisfied that the policy clearly sets out that small, medium and large sites can be allocated in this way, but that small and medium sites should be given particular consideration".

Comments from government:

The government's consultation response said there were 1,178 responses to the consultation on both the draft revised NPPF and draft National Model Design Code.

The MHCLG said in a statement that the updated NPPF "will place greater emphasis on beauty, place-making, the environment, sustainable development and underlines the importance of local design codes".

Housing secretary Robert Jenrick MP said: "Our revised National Planning Policy Framework will ensure that communities are more meaningfully engaged in how new development happens, that local authorities are given greater confidence in turning down schemes which do not meet locally set standards. This is about putting communities, not developers, in the driving seat to ensure good quality design is the norm."

In a written ministerial statement, Jenrick said the NPPF changes:

- *Make beauty and place-making a strategic theme in the framework*
- *Set out the expectation that local authorities produce their own design codes and guides setting out design principles which new development in their areas should reflect*
- *Ask for new streets to be tree-lined*
- *Improve biodiversity and access to nature through design*
- *Put an emphasis on approving good design as well as refusing poor quality schemes*
- *We have also made a number of environment-related changes, including on flood risk and climate change. ... For instance, highlighting the opportunities from improvements in green infrastructure and natural flood management techniques.*

An article summarising the draft changes published in January can be found here

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Sheffield Council to Remove Controversial Target to Fell 17,500 Trees from Amey Highways Contract

An article by Chris Burn published on www.yorkshirepost.co.uk

SHEFFIELD COUNCIL has committed to removing a highly controversial target for the replacement of half the city's street trees from a £2bn highways contract as it seeks to move on from its tree-felling debacle. Cabinet member Paul Wood told a council meeting last month that the council intended to make a change to its contract with Amey. The 25-year £2bn highways improvement contract called Streets Ahead started in 2012 and runs until 2037.

"On the removal of the Streets Ahead clause requiring the felling of 17,500 street trees, that will be removed," he said.

The existence of the target was revealed in March 2018 at the height of protests against the council's felling policy, which was seeing thousands of street trees, removed from roadsides and replaced with saplings.

The council had previously claimed there was no tree removal target but after they were order to publish details of the contract by the Information Commissioner, it revealed that it stated "the service provider [Amey] shall replace highway trees in accordance with the annual tree management programme at a rate of not less than 200 per year so that 17,500 highway trees are replaced by the end of the term." The council said later in 2018 it was unable to amend the contract with Amey. It subsequently said there was no obligation to remove 17,500 as part of the contract.

In recent years it has changed strategy to ensure fewer trees are felled while an inquiry has recently been ordered into what went wrong during the saga.

Cllr Wood's comments followed a question by tree campaigner Russell Johnson who asked that "in view of the new climate of cooperation" whether cabinet members "would commit to the removal of the Streets Ahead contract clause requiring the felling of 17,500 street trees in the duration of the contract" and also to "commit to the removal of the clause for straight, continuous kerbs allowing skilled Amey highway engineers to make sensible and pragmatic decisions without reference to a council officer for each and every case". Campaigners have previously argued the requirement for straight pavement kerbs in the contract was behind some felling decisions.

Mr Johnson added: "These changes I ask for would have no cost implications for the council and I believe would be welcomed by the contractors so shouldn't present any difficulties in negotiation." He also asked for the "cessation of the felling programme" to be formally announced as it is only technically "paused" at the moment.

Cllr Wood said in relation to the removal of the requirement for straight kerbs, it remained preferable for that to remain to give the council oversight of the process, but he was still willing for the contract to be altered. He said "I don't believe we can leave Amey with the total charge of any part of this contract. I think there always needs to be oversight from the council and the council officers," However, I will commit to the removal of the clause requiring straight continuous kerbs and work to find practical solutions on a case-by-case basis. Regarding the cessation of the felling programme, I can't find anything in the contract and have been advised there is no paperwork that makes that a formal decision as such, but what I can say is any street tree removal will be individually assessed and consulted on in line with the Street Tree Strategy approved by Cabinet in March 2021."

Road Planners Able to Ignore Climate Change, Campaigners Claim

By Roger Harrabin, BBC Environment Analyst

PLANNERS can effectively ignore climate change when they are deciding whether to grant permission for new road schemes, environmentalists have said. Transport Secretary Grant Shapps has promised a review of £27bn highways policy which will be completed within two years, but in the meantime, planners can use existing guidelines.

Campaigners say these ignore the cumulative effects of major road projects. They say Mr Shapps should be blocking new schemes until a new climate-friendly policy is developed. Many scientists say no new infrastructure should be built unless it is low-carbon.

The debate has been raised because government policies for infrastructure were devised before ministers committed to virtually abolishing carbon emissions for the whole UK economy. The policy debate is still catching up.

Currently guidance to planners states: “Any increase in carbon emissions is not a reason to refuse development consent, unless the increase in carbon emissions resulting from the proposed scheme are so significant that it would have a material impact on the ability of government to meet its carbon reduction targets.”

Campaigners say the government must take account of the cumulative climate effect of its entire roads programme, not just of individual schemes. They have been chivvying Mr Shapps for 18 months to update the roads strategy to combat the climate crisis. He has now promised to review it, but not for up to two years.

Chris Todd, from Transport Action Network, said, "As our roads melt and places around the world face record temperatures and floods, the words ‘climate emergency’ appear to have no meaning within the Department for Transport.

“Instead, all we seem to get are delay, delay and yet more delay. Having now finally accepted the inevitable, Mr Shapps is still fiddling while the planet burns.”

Mr Todd said the test for carbon in the guidelines was "utterly ridiculous".

"A road scheme's emissions, however large, are never going to be significant compared to a five year carbon budget for the whole of the UK," he said. "It's high time the government corrected this ludicrous state of affairs."

However, Edmund King, AA president, said that zero emission cars will still need roads to drive on. “So while it is correct to review the roads programme and especially the expansion of smart motorways, it is naïve to think we wouldn’t need to sort out the bottlenecks and dangerous hotspots.”

Mr King, though, also wants a major government investment in rural broadband to reduce the need for travel and Mr Shapps himself says he wants to get people out of their cars to reduce emissions and improve health.

A government spokesman said that the Department for Transport and Highways England have both published "ambitious plans to get to net zero highways".

"This will see the UK rapidly cut carbon from road construction, maintenance and operations, and support the transition to zero emission vehicles - putting roads at the heart of the low carbon economy," a spokesperson said.

Among the schemes pending approval is the Lower Thames Crossing. A massive project that campaigners complain would produce over 5 million tonnes of carbon emissions.

Other major schemes include:

A428 Black Cat to Caxton Gibbet
A66 Northern Trans-Pennine
A417
A27 Arundel Bypass
A5036 Port of Liverpool
A57 Link Roads
A12 Chelmsford to A120 Widening
Four A47 schemes in Cambridgeshire and Norfolk

The campaigners also complain that smart motorways, which allow vehicles to run on the hard shoulder, are treated as permitted development without the need for planning permission or any assessment of carbon impacts.

Emissions come from the creation of the road-building materials such as cement, as well as from petrol and diesel cars and lorries that will be using new road space.

Only last week Mr Shapps told holiday-makers they could carry on flying because technology would solve emissions from aviation.

This flew in the face of a recommendation from the Climate Change Committee which says ministers must dampen the projected increase in demand for flying – as well as seeking technology solutions.

Springwatch's Iolo Williams Angry as Sea Scooters Hit Birds

SPRINGWATCH presenter Iolo Williams has called for sea scooter users to require licences after seeing five riders plough through seabirds. He also wants the vehicles to carry number plates after seeing the incident off Puffin Island, near Anglesey. "They went right through the middle of these auks, guillemots and razor bills," Mr Williams said.

The Department for Transport said local and harbour authorities have powers to enact bylaws governing their use.

Naturalist Mr Williams said there had also been incidents off South Stack and Anglesey. "I am calling for, if not an outright ban, they should be licensed and have large registration numbers," Mr Williams said. "These idiots that I saw, they should not be on them at all."

He said the problem had arisen because lockdown was forcing people who would normally be abroad to holiday in the UK instead.

"I was walking with a telescope and there were several hundred birds," he continued. "They could have killed them, whether any were killed I do not know. If it was left to me I would ban them from these places."

North Wales Police's rural crime team said it was "aware of reports of jet skis ploughing through rafts of seabirds on Anglesey".

The force said on Twitter: "Various reports have been made in recent weeks in areas including Puffin Island and South Stack - home to seabirds including auks such as guillemots, razorbills, and puffins."

Rural crime team manager Sgt Dewi Evans said he was "very disappointed" water scooters had been "ploughing through these rafts".

He added: "This is not a sustainable way to manage our natural resources and if someone were to do this, knowingly causing injury to our bird life, then they would be committing a criminal offence."

A UK government Department for Transport spokesman said: "In the event that by-laws are breached, the local or harbour authority and the police have the powers to prosecute offenders and/or move people on, so any such activity should be immediately be reported to the police.

"The Department for Transport intends to consult on new national legislation to further strengthen existing enforcement powers and ensure that, where wilful or negligent misuse occurs, riders can be prosecuted."

EU Unveils Sweeping Climate Change Plan

An article published on www.bbc.co.uk/news

THE EUROPEAN UNION has announced a raft of climate change proposals aimed at pushing it towards its goal of becoming carbon neutral by 2050. A dozen draft proposals, which still need to be approved by the bloc's 27 member states and the EU parliament, were announced on 14 July. They include plans to tax jet fuel and effectively ban the sale of petrol and diesel powered cars within 20 years. The proposals, however, could face years of negotiations.

The plans triggered serious infighting at the European Commission, the bloc's administrative arm, as the final tweaks were being made, sources told the AFP news agency.

By acting now we can do things another way... and choose a better, healthier and more prosperous way for the future," European Commission President Ursula von der Leyen said on Wednesday.

"It is our generational task... [to secure] the wellbeing of not only our generation, but of our children and grandchildren. Europe is ready to lead the way."

The measures are likely to push up household heating bills, as well as increase the cost of flights in the EU. Financial assistance will be available for people to install insulation and make other long-term changes to their homes.

"We're going to ask a lot of our citizens," EU climate policy chief Frans Timmermans said. "We're also going to ask a lot of our industries, but we do it for good cause. We do it to give humanity a fighting chance."

Opposition is also expected from some industry leaders, such as airlines and vehicle manufacturers, as well as from eastern member states that rely heavily on coal.

One EU diplomat told Reuters that the success of the package would rest on its ability to be realistic and socially fair, while also not destabilising the economy.

"The aim is to put the economy on a new level, not to stop it," they said.

The measures, billed as the EU's most ambitious plan yet to tackle climate change, have been named the Fit for 55 package because they would put the bloc on track to meet its 2030 goal of reducing emissions by 55% from 1990 levels.

By 2019, the EU had cut its emissions by 24% from 1990 levels.

Some of the key proposals include:

- Tighter emission limits for cars, which are expected to effectively end new petrol and diesel vehicle sales by 2035
- A tax on aviation fuel, and a 10-year tax holiday for low-carbon alternatives
- A so-called carbon border tariff, which would require manufacturers from outside the EU to pay more for importing materials like steel and concrete
- More ambitious targets for expanding renewable energy around the bloc
- A requirement for countries to more quickly renovate buildings that are not deemed energy efficient

However, corporate lobby BusinessEurope denounced the plan, saying it "risks destabilising the investment outlook" for sectors

such as steel, cement, aluminium, fertilisers and electric power "enormously".

Furthermore, Willie Walsh, head of the International Air Transport Association, said: "Aviation is committed to decarbonisation as a global industry. We don't need persuading, or punitive measures like taxes to motivate change."

At the same time, environmentalist campaigners have said the proposals don't go far enough. "Celebrating these policies is like a high-jumper claiming a medal for running under the bar," Greenpeace EU director Jorgo Riss said in a statement.

"This whole package is based on a target that is too low, doesn't stand up to science, and won't stop the destruction of our planet's life-support systems."

Climate campaigner Greta Thunberg said that unless the EU "tears up" its proposals, "the world will not stand a chance of staying below 1.5°C of global heating".

In September the EU Commission set out its blueprint for reaching the 55% reduction by 2030, and said at least 30% of the EU's €1.8tn (£1.64tn) long-term budget would be spent on climate-related measures.

The targets are part of a global effort to tackle climate change by cutting atmospheric pollution, especially carbon dioxide (CO_2) emissions. The Paris climate deal, signed in 2016, aims to keep global temperature rise well under 2°C, and preferably within a maximum rise of 1.5°C, to prevent the worst effects of climate change.

MATT McGRATH, the BBC Environment Correspondent, gave the following analysis of the EU's climate change proposals.

The scale of this 12-pronged plan is breathtaking. It will likely have an impact on every citizen of Europe in almost every aspect of their lives. The scope is so huge because the target is so tough. From 1990 to 2019 the EU cut carbon emissions by 24%. Now it proposes to slash CO_2 by another 31% in just 9 years. That's what's needed if the 2050 net-zero target is to be achieved.

So as well as boosting renewables, the EU is now set to tackle the really tough issues of home heating and transport. The proposals would see the end to new petrol and diesel cars by 2035.

Europe's emissions trading scheme will also be reformed to include heating and road transportation. Fossil fuels used in shipping and aviation will face tax rises.

One of the most eye-catching proposals is a carbon border tax on goods like steel, cement and fertiliser to ensure that European industry, which has to pay for permits to use carbon, can compete. However, the proposal is contentious and could spark a trade war with China and the US.

The ambitious package will now face months of negotiations with member states, with poorer countries wary of new policies that could raise costs for consumers.

The commission is betting that instead of hordes of yellow-vest protesters taking to the streets, citizens will be willing to pay a price for cleaner air, lower emissions, and more sustainable lifestyles. The rest of the world will watch this huge gamble with interest.

A FEW days later, writing on The Guardian website, Jennifer Rankin reported that the EU executive has been accused of "sacrificing forests" after publishing proposals that would allow trees to continue to be burned for fuel.

The charges of "accelerating climate breakdown" through wood-burning were made on 17 July as the European Commission unveiled its forest strategy, which includes a goal to plant 3bn trees across the EU by 2030.

The forest strategy is part of a broader plan to confront the climate and nature emergencies and put the EU on track to cut emissions by 55% by the end of the decade, a mammoth bundle of legal proposals known as "Fit for 55".

Campaigners said the commission had not gone far enough to tighten the rules on wood that can be burned for fuel. A draft update to the EU's renewable energy directive proposes banning the biomass industry from taking wood from "primary forests" – virtually untouched ancient woodlands, which account for just 3% of all EU forests.

In the next tier of "highly biodiverse forests", wood for biomass would be limited "to ensure no interference with nature protection purposes", the commission said. Overall "the use of whole trees for energy production, whether from the EU or imported, should be minimised", while subsidies for biomass from tree stumps and roots will be phased out.

Lina Burnelius, project leader at Protect the

Forest Sweden, said the commission had failed to address one of the key drivers of forest degradation (ie counting forest biomass as renewable energy). “Fit for 55 is harmful to forests and insufficient to tackle climate change. We are in desperate need of honest policies that include all our emissions in the statistics.”

The European Commission had chosen “to sacrifice forests rather than admit that current EU bioenergy policy is making the climate crisis worse”, she said. “Enough with the burning. We cannot just switch from burning one climate disastrous fuel to another”.

Burning wood for electricity releases more carbon into the atmosphere than gas or coal, and many scientists are sceptical that planting trees to repay the “carbon debt” squares with commitments under the Paris climate agreement.

Earlier this year, more than 500 scientists wrote to European Commission president, Ursula von der Leyen, and other world leaders, calling on them to end all subsidies for wood burning. “Regrowing trees and displacement of fossil fuels may eventually pay off this carbon debt, but regrowth takes time the world does not have to solve climate change,” stated the letter, whose signatories included Jean-Pascal van Ypersele, a former vice-chair of the Intergovernmental Panel on Climate Change. “Trees are more valuable alive than dead both for climate and for biodiversity.”

In response to the Guardian, the EU environment commissioner Virginijus Sinkevičius said the EU strategy clearly states that “whole woods” were to be avoided for biomass. “Our aim is very clear: the forests have to play a vital role, a contribution to our Fit for 55 target, for our 55% [emissions-reduction] target.”

He suggested “most” EU member states were not burning whole trees for biomass “because economically it doesn’t make sense”. Instead, he said, biomass producers were “usually” using tree parts “that are not used anywhere else” and whole wood “is used in the value chain for products that actually store carbon for a much longer time”.

A recent report from the commission’s scientific advisers shows that 49% of the EU’s woody bioenergy comes from residues and wastes from logging and timber processing, such as branches and sawdust. A further 37% comes from “low-quality” stemwood (trunks) and immature trees cut down for forest management, while 14% of biomass was from an unknown source, which researchers suspect to be trees, rather than waste wood.

Demand for biomass has surged in the last two decades under EU targets to generate energy from renewable sources.

Sini Eräjää at Greenpeace said demand for biomass had been driving wood extraction. The “tweaks” proposed by the commission to protect a small part of EU forestland, she said, “would allow the industry to extract more wood from any of the other forests, which is of course bad for climate”.

The final version of the law will have to be agreed EU governments and members of the European parliament.

Global Study Reveals Effectiveness of Protected Forests

An article published on www.sciencedaily.com

SCIENTISTS have published a global study on the effectiveness of protected areas in preventing deforestation. The study, published recently in Environmental Research Letters, explored the success of country-level protected areas at reducing forest loss, and used machine learning to uncover some of the factors that contribute to differences in effectiveness.

"Protected areas are a key conservation tool that are essential for stemming the tide of biodiversity and habitat loss across the Earth," said first author, Dr-. Payal Shah, a research scientist at the Okinawa Institute of Science and Technology (OIST), who specializes in applying economic theory to conservation.

She added: "Scientists are calling for 30% of land and ocean to be protected by 2030. However, as more and more land is placed under protection, it's increasingly important to measure how well each protected area is working, so policy makers can make more informed decisions about future conservation efforts."

For the study, the research team used satellite data of forest cover between the years 2000-2012, focusing on protected areas that had been established during this timeframe. Countries that had not placed a large enough area of land into protection were removed from the analysis.

For the 81 countries that remained in the analysis, 3.2 million km² of land had been placed into protection. The research team then estimated how effective these protected areas were by comparing changes in forest cover between protected and statistically matched unprotected areas. The areas of land were matched using a wide range of factors that are important predictors of deforestation, including their distance to cities, their elevation from sea level and the slope of the land.

"The aim was to try and understand how much deforestation would have occurred in an alternative scenario, if an area had not been placed under protection," explained Dr Shah.

The researchers found that overall, around 34,000 km² of forest was lost within newly established protected areas between 2000 and 2012. An area larger than the size of Belgium. However, they estimated that if these protected areas had not been put into place, an additional 86,062 km² of forest would have also been lost. This would have meant that an area of land totalling around 120,000 km² (the size of North Korea) would have been deforested.

"This means that protected areas on the whole reduced deforestation by 72%, which is great news," said Dr Shah. "But when you start breaking down the data by country, the results are more mixed."

The scientists saw that protected areas in some countries performed significantly better than other countries within their region. Leading the way were South Africa, Cambodia, Latvia, Guatemala, Uruguay, Brazil and New Zealand, for the regions of Africa, Asia, Europe, North America, South American and Oceania, respectively.

The research team estimated that if all the other countries' protected areas had been as successful as the best performing country in their region, then an additional 33,020 km² of forests would have been saved, which would have reduced deforestation within the newly established protected areas to roughly 1000 km² only.

"The countries in each region are battling against similar key drivers of deforestation, such as timber logging or wildfires, so theoretically, every country has the potential to do equally well," said Dr Shah. "But we are seeing these huge disparities in the effectiveness of their protected areas. So of course, we then want to understand the underlying factors."

One main factor found was based on the strictness of the protected areas. Strictness categories are based on the degree of human activity or use of natural resources allowed on the land. In most countries, more strictly protected areas were more effective than less strictly protected areas.

Next, the researchers fed data on the demographics, agriculture, economy and politics of each country into a machine learning algorithm, which then identified which factors were most strongly linked to the effectiveness of the country's protected area network.

Countries with high levels of economic growth were associated with higher levels of effectiveness for protected areas.

Meanwhile, countries with higher levels of

agricultural activity tended to have less effective protected areas, particularly in countries that had a lower quality of governance and growing rural populations.

"This was expected as agriculture and deforestation often go hand in hand," explained Dr Shah. "Land is a limited resource so in countries with high agricultural activity, there may be a large deforestation pressures within protected areas in countries that lack proper governance."

However, the researchers emphasized that more in-depth research needs to be done on a country-by-country basis to confirm the reasons underlying these associations.

"As a global analysis, this study allows us to pinpoint which countries are doing well, and which are doing less well," said Dr Shah. "We can then carry out more targeted research in these countries to help support more effective conservation strategies."

Technology Boosts Efforts to Curb Tree Loss in Amazon

By Matt McGrath, BBC Environment Correspondent

TECHNOLOGY can help indigenous communities to significantly curb deforestation, according to a new study. Indigenous people living in the Peruvian Amazon were equipped by conservation groups with satellite data and smartphones. They were able to reduce tree losses by half in the first year of the project. Reductions were greater in communities facing threats from illegal gold mining, logging and drugs.

Over one-third of the Amazon rainforest lies within the territory of approximately 3,344 acknowledged indigenous communities, but for decades, these areas have been under attack from outsiders who are determined to cut down trees for a range of purposes including mining, logging and the planting of illicit crops like the coca plants used to manufacture cocaine.

Over the past 40 years, governments and environmentalists have invested heavily in the use of satellite technology to monitor the removal of trees. Governments in Brazil, Peru and Colombia have put in place a system of high-resolution deforestation alerts, but there is little evidence that this information reaches the indigenous communities most affected.

This new research set out to see if putting information directly into the hands of forest communities would make a difference.

In this randomised, controlled study, the authors identified 76 remote villages in the Peruvian Amazon, with 36 randomly-assigned to participate in this new monitoring programme. Thirty-seven other communities served as a control group and continued with their existing forest management practices. Three members of each selected community were trained in the use of technology and shown how to carry out patrols to verify deforestation.

When satellite information showed suspected deforestation activity in an area, photos and GPS coordinates were loaded onto USB drives and carried up the Amazon River and delivered by couriers. The information was then downloaded onto specialised smartphone apps which would guide the community monitors to the suspected locations.

When the forest patrols confirmed any unauthorised deforestation, they would report back to a general assembly of community members to decide on the best approach. In cases where drug dealers were involved, the community could decide to report the issue to law enforcement. If the activity was perceived as less risky, community members could intervene directly and drive the offenders off their land.

When the researchers examined the impact of the new approach, they found that deforestation dropped by 52% in the first year, and by 21% in the second.

"It's quite a sizeable impact," said Jacob Koppas, an independent researcher and an author on the paper. "We saw evidence of fewer instances of tree cover loss in the programme communities compared with control communities."

"On average, those communities managed to avert 8.8 hectares of deforestation within the first year. But the communities that were most threatened, the ones that had more deforestation in the past were the ones pulling more weight and were reducing deforestation more than in others."

Indigenous groups welcomed the research, saying it is among the first peer-reviewed studies to show the benefits of empowering local communities.

"The study provides evidence that supporting our communities with the latest technology and training can help reduce deforestation in our territories," said Jorge Perez Rubio, the president of the Loreto regional indigenous organization (ORPIO), where the study was carried out.

The scale of the problem of deforestation in indigenous areas is significant. Between 2000 and 2015, around 17% of tree loss in the Amazon occurred on nationally-protected or areas assigned to indigenous peoples. This is expected to increase in the coming years.

"Over the next decade, if nothing changes, indigenous peoples in the Amazon Basin are projected to lose 4.4 million hectares of rainforest, mostly to outsiders who encroach on their territories to cut down trees," says Cameron Ellis, with the Rainforest Foundation US, who helped facilitate the study.

"But if the community-based forest monitoring methodology could be widely adopted and local governance strengthened, forest loss in the Amazon could be reduced by as much as 20% across all indigenous lands."

"If the approach were targeted to regions with high deforestation rates, forest loss in those areas could be cut by more than three quarters."

The study has been published in the journal Proceedings of the National Academy of Sciences (PNAS).

Amazon Eagle Faces Starvation in 'Last Stronghold'

By Helen Briggs, BBC Science Correspondent

CONSERVATIONISTS say one of the world's largest eagles has "nearly zero" chance of surviving Amazon deforestation. According to a new study, the bird is struggling to feed its young in parts of the rainforest that have been stripped of trees. About 17% of the Amazon has been destroyed over the past 50 years and losses have recently been on the rise.

The harpy eagle is the largest in the Americas, with huge talons for hunting monkeys and sloths in the treetops. The Amazon is regarded as the "last stronghold" for the harpy, with more than 90% of the existing population thought to reside there.

The bird is among millions of animals in the Amazon whose geographic range is shrinking, said study researcher Carlos Peres, professor of environmental sciences at the University of East Anglia, UK.

"Considering that harpy eagles have the slowest life cycle of all bird species, their chances of adapting to highly deforested landscapes are nearly zero," he said.

Conservation measures, such as moving young eagles and supplementing their diets, will be critical to the survival of the species, Prof Peres added.

The harpy eagle (*Harpia harpyja*) is one of the largest raptors in the world, with adult

females weighing in at up to 10 kg (22 lbs). The birds live in tropical forests from Central America to northern Argentina, but have disappeared in large parts of their former range.

The escalating rate of forest destruction in the region, along with hunting, is threatening the bird's existence. Despite having legal protection in several countries, including Brazil, Panama and Suriname, safeguards are difficult to enforce in remote areas of forest.

In the study, researchers led by Dr Everton Miranda of the University of KwaZulu-Natal, South Africa, monitored 16 nests in Amazonian forests in Mato Grosso, Brazil using cameras. They also referenced maps and Google Earth to calculate deforestation levels around nests.

Bone fragments revealed the eagles were feasting mainly on two-toed sloths, brown capuchin monkeys and grey woolly monkeys. In deforested areas they did not find alternative food, and fed their young less frequently.

In landscapes with 50-70% deforestation, three eaglets died from starvation, and no nests were found in areas with deforestation over 70%.

The scientists calculated that areas that have lost more than half their trees are unsuitable for harpy eagles to successfully raise young and estimate that around 35% of northern Mato Grosso is unsuitable for harpy eagles to breed. This may have caused a decline in numbers of breeding pairs by more than 3,000 since 1985.

The research is published in Scientific Reports.

Why Light a Bonfire?

By Ted Green – Pressing on Fungi First

THANKFULLY the practice of burning unusable wood on site is gradually disappearing. In natural forest ecosystems the natural decay of dead wood and the recycling of nutrients and minerals released in the breakdown processes are fundamental and essential to the well-being of the forest. Leaving lop and top to decay down naturally, not just burning on site in the old traditional way, is therefore very important.

Decay fungi, a very large and diverse group, are the primary organisms in the breakdown of all plant matter aided by bacteria, insects, invertebrates and other organisms. They are also believed to keep out other fungal colonists from the areas they occupy.

This diverse group includes specialist and generalist fungi which therefore not only recycle all the material in the woodland but by defending their areas of influence they also inhibit the spread of other colonists including pathogens.

In the decay process the minerals and nutrients produced are often transferred by another very large and diverse group of fungi, the mycorrhizal fungi, directly to the tree roots. Mycorrhizal fungi are beneficial to the tree in another way, by rapidly colonising new root hairs as they are produced and fusing with them, they then exclude other fungal colonists, which might include pathogens.

As these two groups of fungi permeate every part of the forest and every tree, they are actually practising biological control of pathogens and therefore maintain a healthy natural forest.

With the arrival of the chainsaw, the felling contractor is now leaving lop and top as a general practice in woodlands and this material is starting to supply the same decay process as in natural woodland systems. Wood chips if also left on site will eventually benefit the surrounding trees in a similar way.

However removal to another site to be used as a wood mulch where it only replaces other dead unsightly plant material cleared solely in the pursuit of tidiness, represents a loss to the original woodland, depleting its minerals and nutrients. Scattered piles of lop and top from a felling operation were found recently in a forest in Eastern Germany. In this instance it appeared that the lop and top had been collected up into piles in such a way as to allow natural regeneration to occur.

Every bonfire in woodland can have two very distinct and detrimental effects on trees and woodland in general. These effects should be termed 'zones of influence'. The aerial zone and the subterranean zone.

The aerial zone can often be all too easily seen when trees overhanging and surrounding the fire have leaves, twigs, boughs and often trunks scorched by the heat and flames. However with increasing distance from the fire the effects of the heat might take a much longer period to appear.

The subterranean zone below ground, which is never seen and usually ignored, will be affected in a similar way- and the damage may eventually prove to be more significant in the

long term. It might be argued that soil would have a greater insulating effect against the immediate heat of a bonfire.

However it could also be argued that the soil that has gained heat will retain the degree of heat for longer periods and therefore might well achieve a similar overall effect to the instant heat above ground.

Both zones or 'cones' of influence are obviously three dimensional although the zones are not symmetrical - the closer the bonfire is to the tree the greater the damage to roots or limbs affected by the heat.

Wherever there is cell damage it will result in dysfunctional wood either above or below ground. Dysfunctional wood allows the activation of latent fungi present in the tree, allowing decay processes to start up in these areas or opportunities for invasion and colonisation by other fungi including pathogens. The more dysfunctional wood the greater the effect on the efficiency of the tree and its future growth for many years.

Another effect of bonfires is the heat sterilisation and desiccation of the soil in the immediate area with the obvious disastrous effects on the forest soil ecosystem of bacteria and invertebrates etc. Biological control over the area will have vanished. Tree roots eventually entering and re-colonising this area may not find their beneficial mycorrhizal fungi present to colonise them and subsequently protect them against pathogens.

There can be no logical case for a bonfire in natural woodlands. Many of the minerals and nutrients are exported from the area. Up in smoke. Yet again more depletion of the forest reserves. Bonfires cost manpower, which means money. Why spend money? Let the natural system do the work of decomposition and recycling and then the whole system including the forester benefits.

Leaked EU Plan to Green Its Timber Industry Sparks Firestorm

An article by Jonathan Tirone published on www.bloomberg.com

A European Union strategy to boost forest protection has turned a simmering scientific debate into a full-blown firestorm, pitting one of the bloc's oldest industries against a perceived power grab by technology-driven regulators. More than two-fifths of Europe is covered by woodlands, which play a pivotal role in capturing and storing greenhouse gases that would otherwise compound climate change when they amass in the atmosphere. Trees are also the foundation of a €640 billion £548 billion) industry that employs millions of workers who harvest timber for building material and energy.

In a 19-page draft leaked by environmental groups last month, the European Commission wrote that it's preparing a new suite of high-tech surveillance measures and rules to protect European forests "under increasing strain," while streamlining governance across all 27 member states.

The EU's executive arm wants to expand woodlands by planting an additional 3 billion trees, even as it encourages more timber use to replace carbon-intensive concrete in construction. While the strategy drafted in Brussels could be a boon for the environment, as well as the emerging climate-data industry that accounts for carbon emissions, timber merchants wary of stronger restrictions have rallied to fight the proposal.

"The Commission is playing a political game with extremely high stakes," said Anna Holmberg, a Brussels lobbyist for Sweden's forest industry, the world's third biggest, which has called the EU strategy tone deaf to forest owners and investors. The Confederation of European Forest Owners, another lobby group, said it's concerned that surveillance measures could yield misleading information.

Tension has been building with industry since scientists at the Commission's Joint Research Centre, or JRC, published a report in July 2020 that found an abrupt increase, by almost half, in harvested forest over a three-year period ending in 2018. They warned that growing demand for timber products risk derailing Europe's climate goals by damaging an important carbon sink.

To complicate matters further, in April another group of scientists affiliated with the European Forest Institute, a government adviser that oversees an EU facility designed to reduce emissions from deforestation, said the Joint Research Centre had it wrong.

"The large harvest changes reported by JRC result from methodological errors," the 30 scientists wrote in the journal Nature. "These errors relate to satellite sensitivity improving markedly over the period of assessment, as well as to changes in forests due to natural disturbances, eg drought and storm related die-back and tree-falls, being often attributed wrongly to timber harvests."

The disagreement over facts underscores the confluence of factors that are making it difficult for policy makers and companies to manage the rising damages wrought by climate change.

For foresters, a decades-long succession of warmer winters and drier summers has weakened woodland resilience, exposing trees to wildfires and invasive species. Spruce beetles have wiped out millions of hectares, causing billions of euros in damages and forcing loggers to raze affected groves and replant new species of trees.

Over the same period, the European Commission has been funnelling billions into building out a constellation of Earth observation satellites managed by its Copernicus Climate Change Service. The massive volumes of freely-available information they produced has kickstarted a burgeoning new industry of climate-data start-ups that are angling to support government and business decisions.

Ultimately, accounting for "forest inventories can only be achieved through multi-layered interaction," that includes satellite data as well as information measured on the ground, said Rolf Schmitz, a founder and chief executive officer of Collective Crunch. His Finnish company plugs satellite data into artificial intelligence algorithms designed to time harvests and maximize the sequestration of CO_2.

To build trust and open up the forestry industry to new digital markets, data scientists have to "verify their facts as well as their error rates," said Schmitz, who called the Joint Research Centre study "sensational" and questioned its accuracy.

In a 2 July letter sent to the Commission, the European Association of Remote Sensing Companies urged Vice President Frans Timmermans to stick by the EU's plans to use more satellite surveillance technology to manage forests. The strategy "has the potential to not only meet climate policy objectives, but also create sustainable innovation and economic opportunity," reads the 3-page document seen by Bloomberg Green.

Getting industry to buy into new ways of doing business on a warmer planet will require more education to go along with the edicts issued from capitals, according to Tomas Scavnicar, a data scientist who grew up among Slovenian farmers before drawing investment from the European Space Agency to create remote inspection tools.

"At the end of the day, what we're doing is setting new standards," he said. "Since the green revolution, farmers and foresters have constantly been faced with new challenges and asked to adapt. They can do it, but want to know who will pay."

Getting to Grips Selfish Mountain Bikers

OVER recent months Broadsheet has continually reported cases where selfish mountain bikers cause damage to our woodlands and pose a danger to those of us who wish to enjoy our natural environment for what it is while respecting the fact that it is home to other species.

Alas, though, it appears that *Homo* (selfish) *sapiens* doesn't care about anyone or anything other than his or her enjoyment and two recent cases illustrate this only too well.

In the first of these latest incidents, selfish mountain bikers have been urged to stick to dedicated routes after damage was caused to a number of woodland sites in the Bradford District. Damage included areas dug up to create bike jumps, trees cut down by bikers creating their own tracks, disturbance to wildlife, graffiti and damage from campfires.

Bradford Council says some areas have been damaged by the increased uptake of the sport during lockdown which has continued over the spring and summer this year.

A spokesman said: "There are a number of recommended routes and dedicated areas across the district for mountain bikes and BMX riders on the Cycle Bradford and Ilkley MTB websites. These are areas recommended for riders and where there is less likely to be a negative impact on the land."

Cllr Sarah Ferriby, Portfolio Holder for Healthy People and Places, said: "While it's great that people want to get outdoors on their bikes, we also want to protect our woodlands, parks and countryside sites, so that everyone can enjoy them.

"We also need to protect our trees, plants and wildlife. For that reason, we would ask that people please use designated mountain bike routes."

A MORE recent case showed that Norwich is not immune to this problem. David Hannant reported on the Norwich Evening News website that Mousehold Heath Rangers have stepped up their patrols in a bid to curb off-track cycling.

With its hills and dirt tracks, Mousehold Health has long been a popular spot for cycling, particularly BMXs and similar stunt bikes. However, rangers in charge of the Norwich City Council-run site have increased their patrols after receiving complaints about riders failing to stick to specific cycle routes.

A report made to the Mousehold Heath

Conservators committee, which met at the end of last month, said complaints were largely made due to stunt cyclists attempting jumps near the public footpaths through the heath.

The report said: "A number of complaints have been received regarding cyclists jumping over the hard surface of the public cycle route/footpath at Valley Drive. Wardens have increased their presence and patrolled this area at peak times on weekends and evenings, advising cyclists of the risk to the public and that they should not be cycling on the heath."

Throughout the pandemic, the demand for the heath has grown exponentially, with the lockdown period seeing people growing increasingly reliant on outdoor spaces and along with this came an increase in the cycling activity taking place on the site, which saw wardens forced to dismantled jumps illegally constructed near Valley Drive and fill in holes made to create BMX courses.

A spokesman for Norwich City Council said: "We have received a small number of complaints concerning off-road cyclists putting themselves and others at risk by riding recklessly at Mousehold Heath.

"We are taking steps to deter cyclists from travelling at speed across public footpaths. The impact of off-road cycling to other visitors and the heath will be considered at a future meeting of the conservators.

"We would urge people to follow the byelaws of usage of the heath, and anyone found to be breaking these could be liable to prosecution."

The 14th byelaw for the Mousehold Heath reads: "No person shall without reasonable excuse ride a cycle in the ground except in any part of the ground where there is right of way for cycles or on a designated route for cycling."

However, for many years mountain biking went unchallenged on the heath, but in 2008, several complaints were made about tyre marks causing damage to the natural characteristics of the heath, which led to an increased effort to prevent it.

IS IT NOT time we really got to grips with these selfish pedalling morons? Get to grips before even more damage is done … to the environment or those of us who wish to us such spaces for what they are?

Mousehold Heath just has to be one of the most under-valued and misunderstood places I know of. I understand that it once stretched from Norwich to Cromer. It is a place of history and much legend.

Many young boys apparently attempt to preserve it as heathland by lighting fires that keep our wonderful fire brigade occupied during summer months!

Please, please, please let us start to apply the laws that already exist to protect precious places such as Mousehold Heath and let us confiscate to bikes of the culprits and hit them where it hurts. Dish out heavy fines and make them pay the full cost of repairing the damage they cause.

Draconian? Yes, it may be but have you got a better way of halting this growing menace?

Ikea Implicated in Logging Protected Siberian Forests

An article published on https://news.mongabay.com

IKEA has allegedly been sourcing timber for its products from Russian companies engaged in illegal logging of pine trees in Russia's protected Siberian boreal forests, a new investigation has revealed. In a year-long probe by London-based investigative group Earth sight, the Swedish flatpack furniture manufacturer was the most well-known of several Western firms found to have sourced lumber for its products from ExportLes Group, a collection of companies owned by Evgeny Bakurov, one of Russia's wealthiest businessmen-politicians.

Bakurov reportedly once boasted that an Ikea representative said the company chose to do

business with him because he sent Ikea "logs faster than we can transfer the money."

"Earthsight estimates that shoppers have been purchasing an Ikea product containing the suspect Russian lumber somewhere on earth every two minutes," the group said.

Ikea said it had ended purchases from ExportLes in June after Earthsight shared its findings with the company, though it maintained the timber was "legally harvested" and said it had dropped Bakurov's firm from its list of suppliers over unspecified "practices of concern".

Russia's boreal forests, also known as the taiga, include a majority of the world's conifers and store about half of the northern hemisphere's terrestrial carbon, so play a vital role in regulating climate change. The country is one of the world's largest timber exporters, shipping almost a quarter of all lumber traded globally in 2019.

ExportLes had justified its logging of the trees in a protected area through a process known as "sanitary felling", where loggers falsely claim trees are already dead, diseased, dying or damaged and so need to be cleared to preserve a forest's health.

In late June, Ikea said it was placing a temporary ban on sourcing timber from firms engaged in "sanitary felling" in Russia's Far East and Siberia.

Bakurov, a prominent figure in Russia's Irkutsk region, had managed to secure the stamp of approval of the Forest Stewardship Council (FSC), the leading global sustainable timber certification body. Bakurov did not respond to the findings, but Earthsight's investigation alleges that the politician had signed several illegal deals to secure harvesting rights to more than 2 million m³ of timber in protected forests.

In response to the findings, the FSC denied wrongdoing but also invalidated Bakurov's certifications.

According to the report, many of the trees entered the Ikea product chain primarily via an Indonesian manufacturer that supplies stores in western Europe and North America. Russian and Chinese intermediaries were also used.

Many of the products likely made with the illegal timber were marketed for children, the findings showed, with Earthsight drawing attention to the popular Sindvik line of children's furniture.

A previous Earthsight investigation, published last year, linked the FSC and Ikea to the sale of illegally sourced wood from Ukraine.

"These are systemic problems, requiring systemic solutions, which go beyond one buyer, one supplier or one country," Sam Lawson, Earthsight's director, said in a statement. "Governments in Europe and the US need to act urgently to stem the flow of stolen wood once and for all."

Forest of Dean is 'Overlooked' Again

An article by Maisie Lillywhite published on www.gloucestershirelive.co.uk

NATURAL ENGLAND has said it will work to protect the Forest of Dean after it omitted the Gloucestershire forest from a list of new Areas of Natural Beauty (AONB). At the end of June, the government and Natural England announced two stunning areas of the country, the Yorkshire Wolds and Cheshire Sandstone Ridge, will become AONBs.

In addition to this, two existing AONBs, the Surrey Hills and the Chilterns, are being extended, to cover more land and ensure it is protected.

However, some Foresters and campaigners were disheartened to hear the Forest of Dean, which attracted over 2.3 million visitors alone in 2018, had been overlooked. The Campaign for the Protection of Rural England (CPRE) has been fighting for the Forest of Dean to be added to the list of AONBs for years.

Since before the Second World War, the Forest of Dean has been recognised as deserving protected landscape status. In 1938, 42 square miles of the Forest's ancient woodlands were designated for the first National Forest Park, and was recommended for designation in both the Dower and Hobhouse reports in 1945 and 1947, alongside the Wye Valley.

There were local political and economic objections made in 1959, when the National Parks Commission began formally reviewing the Hobhouse recommendations for the Forest of Dean.

Councillors, and possibly the Coal Board, were worried designation would interfere with plans to extract coal and other mineral deposits. In 1996, this was born out when the published Gloucestershire Minerals plan included proposals for large-scale mineral extraction in the Forest.

Continued public protest led to the new Labour Government asking the Countryside Commission to produce a report to protect the Forest in 1998, and this report recommended it become an 'enhanced AONB'.

In recent years, tourism has boomed in the Forest of Dean due to its natural beauty, with CPRE crediting the 'entrepreneurial spirit' of Foresters for this growth. Simon Murray, Chair of CPRE Gloucestershire's Forest of Dean committee, said: "We firmly believe the Forest of Dean meets the criteria for new designated landscapes, being not only an outstanding area of natural beauty, but with its strong free-mining traditions, socially and historically it is very different from many of our National Parks and other AONBs,

"Being near major centres of population it provides easy access for recreation in forest and rolling countryside, and as one of the most densely forested areas in the country, it makes a real contribution to mitigating the climate emergency,

"Whilst we welcome this new programme which will work towards the Government's target to protect 30% of land for nature by 2030, we are sorely disappointed that the Forest of Dean has again been overlooked, and we will continue to work towards designation of the Forest of Dean as an AONB."

A spokesman for Natural England said they will keep the Forest of Dean 'in mind'. He said: "Natural England will continue to work with those landscapes, such as Forest of Dean, that have previously expressed interest in designation as a National Park or AONB in their plan to create a visionary map for England's landscapes in the 21st century, reflecting the spirit of the Hobhouse Map which led to the establishment of the first National Parks 70 years ago,

"This England-wide assessment will work with stakeholders and communities to identify nature recovery and enhancement needs across England, including any remaining places suitable for future National Park or AONB designation, and those places where alternative forms of action will be more appropriate and are wanted by local communities,

"We will consider all of the existing proposals we have received for National Park and AONB designation as part of this assessment."

Endangered British Hedgehogs Need Greater Legal Protection MP Warns

By Jonathan Chadwick for MailOnline, Colin Fernandez and Helena Horton

BRITISH hedgehogs need legal protection from being plucked from back gardens and being sold for hundreds of pounds, the government has heard. MPs have argued in parliament that the British hedgehog (*Erinaceus europaeus*) is facing an increasing problem of being traded as pets. The species is known as one of the UK's best loved mammals and a 'gardener's friend', but the creatures have seen a whopping 97% decline since 1950.

Hedgehogs are badly threatened by road traffic, destruction of habitat with heavy machinery and the use of chemicals for intensive farming, which not only poisons insects that the hedgehog feeds on but kills the hedgehogs directly.

They were listed as vulnerable to extinction in the UK by the Red List for British Mammals last year, prompting a petition for the government to give them greater legal protection. The petition received more than 100,000 signatures for hedgehog protection to be increased to schedule 5 under the Wildlife & Countryside Act 1981, and the issue was debated in Parliament last month.

If made, the amendment would prohibit members of the public from selling the creatures.

"There is a problem of hedgehogs being sold," said Matthew Vickers, a Conservative MP for Stockton South, during the debate. "The problem arises when people start to snatch the hedgehogs they find at the bottom of their garden and sell them on for £300 a pop. That threatens population numbers and creates biosecurity risks. Moving hedgehogs to schedule 5 would prevent it."

Vickers said that there's also an issue with the trading of a non-native hedgehog species, the African pygmy hedgehog, which is "not as cute as the great British hedgehog". Schedule 5 protection would offer the dwindling species protection from all intentional killing, injuring or taking, as well as prohibiting them being sold.

"Government's response to the petition states that they have not previously moved hedgehogs into schedule 5 because they have no evidence that hedgehogs are being intentionally killed," Vickers added. "I am sure we are all grateful for that and I hope that people would not do something as cruel."

A recent report from Hedgehog Preservation Society indicates there may be as few as one million hedgehogs in the UK today. A decrease of more than 50% in the last 20 years, and in the 1950s it was estimated there were 36.5 million hedgehogs in Britain. A staggering decline of 97%.

"The numbers we have also heard are truly shocking," said Duncan Baker, a Conservative MP for North Norfolk. "None of us could fail to be extremely worried that we are down to potentially our last million hedgehogs. To read that they are vulnerable to extinction would have been unheard of when I was growing up. A decrease of over 50% in the last 20 years is something that we should all sit up and notice."

Fay Vass, chief executive of the British Hedgehog Preservation Society, said the charity had been sent screenshots by members of the public highlighting the sale of native hedgehogs, and had asked the RSPCA to investigate. One seller in West Bromwich was found to be offering a hedgehog for sale at £110 on an online pet marketplace, while others were listed on second-hand marketplace Shpock.

Vass said "We don't know how big the problem is. There are so many online sites such as Facebook selling pages, that it is very likely to be a bigger problem than we realise."

Minister Rebecca Pow said she is "a great fan of hedgehogs, not least from reading all my children Mrs Tiggy-Winkle, the amazing Beatrix Potter book. 'I was interested to hear about the potential collecting and selling of hedgehogs," she said.

"If there is evidence of that from the British Hedgehog Preservation Society, I would certainly like to see it, because that has not been flagged to me and it would concern me."

However, she added that it "was not clear" adding hedgehogs to Schedule 5, protecting it from "deliberate harm", would help to protect hedgehogs as "it is not clear the species is being threatened in that way".

"The Environment Bill will strengthen our commitment to such species as hedgehogs" Pow said. "We have amended it to require a new, holistic, legally binding target to be set for species abundance by 2030. The aim of that is to halt the decline in nature. That is a really strong commitment, the like of which we have never seen before."

Erinaceus europaeus, the hedgehog species that's native to the UK, is also found throughout Europe.

Currently, the IUCN Red List, which lists the global conservation status of different species, only has it listed as 'least concern' as populations are stable in much of its range across the continent. If government gives the

BRITISH HEDGEHOG: QUICK FACTS

Hedgehogs are one of only three animals to hibernate in the UK, along with dormice and bats.

Hedgehogs are lactose intolerant, so milk should never be left out for them. Water is fine to leave them.

They don't use their eyes to hunt due to poor eyesight, but rather their hearing and sense of smell.

Hedgehogs have around 5000 to 7000 spines on their back.

Source: Love The Garden/Hedgehog Preservation Society

species' greater protection under the Wildlife & Countryside Act 1981, this current minor level of protection may be upgraded.

The hedgehog is known as the 'gardener's friend' because it eats caterpillars, beetles and other critters, Baker also points out in a piece for Politics Home.

"Combined, our gardens provide a space for wildlife larger than all our national nature reserves and so by gardening in a wildlife-friendly way we can help our prickly little friends and help protect them in our own backyards," he says.

According to 2018 research, the hedgehog has disappeared from almost 80% of the British countryside. The prickly mammal is increasingly moving to urban areas, which act as refuges for the small woodland creatures, University of Reading scientists said at the time.

Hedgehogs are mostly insect eaters, but leaving them fresh water and food like cat food, dog food or specialist hedgehog food from wildlife food suppliers will encourage them to return to residential gardens.

DOS AND DON'TS OF PROTECTING HEDGEHOGS IN YOUR GARDEN

DO

- **Leave some areas of wilderness where the hedgehogs can snuffle for insects**
- **Put out water for drinking**
- **Put out a bowl of dog food or meaty cat food around dusk.**
- **Install, in a quiet part of the garden, a hedgehog house.**
- **Look to see if your hedgehog is limping or appears to be injured, or in late autumn look out for underweight hedgehogs**

DON'T

- **Put out bread or milk**
- **Pick up fit hedgehogs**
- **Leave black sacks lying around**
- **Use slug pellets or other chemicals as they may poison hedgehogs and other animals**
- **Light a bonfire without checking to see if a hedgehog or other wild animal has moved in**
- **Fork over compost heaps in case hedgehogs or other animals have taken up residence.**
- **Spray hedgehogs with dog or cat flea sprays. It will be detrimental to the hedgehog**

Source: Tiggywinkles Wildlife Hospital

MoD 'Using Scare Tactics' to Force Public Away from Ancient Woodland

An article by James Tapper published on www.theguardian.com

ROD JOHNSON has walked around Ash Ranges all his life. On a few days each month, the ancient woodland is closed to the public so soldiers from Aldershot barracks can practise at the firing ranges, but for half a century Johnson, like many residents of Ash Vale, has been able to walk the ranges when the red flags are down, showing the soldiers are elsewhere.

That changed last year when the MoD's Defence Infrastructure Organisation decided to permanently close the ranges to the public for the first time since the commons were granted to the armed forces in 1876, on the proviso that they remained open to the public when not in military use.

Now Johnson and other campaigners say the MoD has become increasingly heavy-handed in enforcing what they call an illegal closure. Last month, two military police officers turned up on the 76-year-old's doorstep with a letter asking him to come to a police interview to discuss allegations of criminal damage to fencing around the ranges. "I think they're trying to scare us," Johnson said. "It's harassment."

Other dog walkers and cyclists continue to use the closed-off area in defiance of the closure, and Peter Corns of the Save Our Spaces campaign says several have been approached by MoD marshals telling people they could be arrested for trespassing.

"I still walk my dogs on the ranges every day," Johnson said. "I've walked the ranges since 1960. My girls cycled on the range road to school. I learned to ride a motorbike. People fly kites, they go tobogganing in the winter. The scouts, guides and brownies use it too."

The allegation of criminal damage is galling for Johnson, since he has reported vandalism and fires he spotted while walking on the ranges.

The campaigners say they are baffled as to why the ranges have been shut. Two other firing ranges in the 1,400 hectare reserve, Stoney Castle and Henley Park, remain open, but they are further away and inaccessible for older and disabled people, including Johnson's wife Heather, who uses a mobility scooter.

"I asked them if they could put a disabled gate in the fence for her to get through," Johnson said. "If she had enough battery, we could make it along the roads for miles. Now she can't get up here at all."

The DIO built a path around the perimeter of the barbed wire fence, but it often floods and is too narrow for Heather to use.

The MoD has told the campaigners it is concerned about vandalism on the ranges, forcing training to be cancelled, and public safety. "Vandalism has actually gone up since they closed the ranges," Corns said. "There's no one around to spot anything."

The Ash Ranges reserve is just about visible from the top of Caesar's Camp, on the other side of Aldershot. The iron age hill fort looms over Training Area B6, an area of bucolic beauty covered with gorse, bracken, heather and sundews that thrive in the sandy soil.

"Since lockdown started, the number of people coming here shot up," said Simon Brown, who runs the Trail Action Group, mountain bikers who ride through the woods and heathland. "I can ride for about 50km without leaving the area."

When the Parachute Regiment was based in Aldershot, soldiers would do lung-busting training runs in full kit and carrying a bergen, or backpack, as they ran to top of the steep slopes. Veterans still visit the place and often bring a stone for a cairn of remembrance for their comrades, Brown said. "I've been here all my life. We do a lot of education for riders. If you see soldiers, you turn around and go elsewhere. There's always somewhere else to go, but the DIO seems to want nobody else here at all."

Mountain bikers are occasionally given yellow warning notices that state they are breaching bylaws applying to Aldershot and could be arrested and fined. Cycling is not allowed under the bylaws, but Brown believes they are being wrongly applied.

"In 2019 we came to an agreement with the DIO about where we could ride," he said. "But they have started trying to get rid of us again."

The MoD has promised to review the bylaws for more than a decade, Brown said. He fears a review will lead to closure of the whole training area. That would be a tragedy, he said. "More than 11,000 people come here. It's a place you can come to shed the baggage of life."

Forestry Commission Acts on Bark Beetle

WOODLAND managers, land owners, the forest industry and tree nurseries are being urged to remain vigilant after two new breeding populations of the larger eight-toothed European spruce bark beetle (*Ips typographus*) were identified in two woodlands in Kent. The UK Chief Plant Health Officer confirmed the findings on 25 June and 1 July following routine Forestry Commission plant health surveillance activities.

Movement restrictions are in place to minimise the risk of onward spread of the beetle and the Forestry Commission, Forest Research and the Animal and Plant Health Agency will conduct further surveillance in the local areas.

Following a finding of the beetle in woodland in Kent in 2018, a demarcated area, enforced by the Plant Health (*Ips typographus*) (England) Order 2019, remains in place covering parts of Kent and Sussex. Within this area, additional movement restrictions apply on conifer material capable of spreading the pest.

Nicola Spence, the UK Chief Plant Health Officer, said "Two outbreaks of the eight-toothed spruce bark beetle in areas of woodland in Kent have been confirmed. This beetle poses no threat to human health, but can have a serious impact on spruce trees species and the forestry industry.

"We are taking swift and robust action to limit the spread of the outbreaks as part of our well-established biosecurity protocol used for tree pests and diseases, and legislation is in place that restricts the movement of spruce trees in the area.

"I encourage anyone who suspects a sighting of the bark beetle to report these to the Forestry Commission through the Tree Alert portal."

Enhanced plant health surveillance within the area this year has intercepted a number of bark beetles through the wider environment trapping network, most likely due to natural dispersal of the pest from the continent. As a result, the Forestry Commission and its partners are increasing their surveillance activity in the area during the next few weeks.

The beetle does not affect human health but can be a serious and destructive pest of the spruce tree species across Europe, although it generally prefers weakened or damaged trees.

THE larger eight-toothed European spruce bark beetle is considered a serious pest on spruce in Europe and has recently been found in the wider environment in England as part of routine plant health surveillance activity.

The beetle is mainly a secondary pest, preferring stressed or weakened trees. However, under the right environmental conditions, beetle numbers can increase enough to result in attacks on living trees.

If left uncontrolled, the beetle, in association with pathogenic fungi (particularly the blue stain fungus *Endoconidiophora polonica*), has the potential to cause significant damage to Britain's spruce-based forestry and timber industries.

Adult beetles are dormant and hibernate over winter under the bark of trees, logs and leaf litter. They then re-emerge in spring, when the temperature rises above 20°C.

The beetle prefers stressed or weakened trees e.g. windblown, damaged and recently felled spruce trees, where, under the right environmental conditions, beetle numbers can increase. Inspection of trees in this category should be a priority.

In addition, look for standing individual and groups of dead trees. This arises when the beetles 'mass attack' trees, overcoming the trees' usual defences by a combination of large numbers and blue stain fungus carried by adult beetles. Under the right environmental conditions, this phase can lead to extensive tree deaths.

Adult females lay eggs along a linear gallery system from which larval galleries radiate, becoming wider as the larvae grow. The pattern shows in the bark and in the surface of the wood, and is unique to *Ips typographus*. This symptom should be looked for in any dead trees, whether standing or fallen.

Please note, the larger eight-toothed spruce bark beetle (*Ips typographus*) can often be confused with the great spruce bark beetle (*Dendroctonus micans*). A symptom guide Field symptoms guide *Ips typographus* (PDF, 844KB, 3 pages) is available to download from this page to assist with identification.

Please remain vigilant for signs of *Ips typographus*. If you think you have spotted signs of this beetle anywhere in Great Britain then please tell us using the Forestry Commission's Tree Alert form.

To protect the country against this pest the Plant Health (*Ips typographus)* (England) Order 2019 came into force on 16 January 2019. The Order allows the Forestry Commission to demarcate areas around confirmed outbreak sites, and imposes movement restrictions on conifer material capable of spreading the pest using a Notice.

A revised Notice (PDF, 395KB, 5 pages) of the Order came into force on 29 January 2019. This applies to the movement of spruce (Picea) material with bark (for example, wood with bark, isolated bark, live trees over 3 metres) that has originated within the demarcated area.

Provision is made within the Order to enable plant health inspectors to authorise movements and processing of spruce material with bark from the demarcated area where this can be achieved without risking the spread of *Ips typographus*. Authorisations can be requested with the applications forms Application to receive and process Spruce V1 (PDF, 269KB, 1 page) and Authorisation to process Spruce V1 (PDF, 517KB, 4 pages).

The demarcated area covers parts of Kent and East Sussex and the boundaries of the are shown in the Ips typographus notice map and within the Notice (PDF, 395KB, 5 pages), which also contains a description of the boundary. This Notice replaces the Notice originally issued on 17 January 2019.

Planting Extra Trees Will Boost Rainfall Across Europe

By Matt McGrath, BBC Environment Correspondent

PLANTING extra trees to combat climate change across Europe could also increase rainfall, research suggests. A new study found that converting agricultural land to forest would boost summer rains by 7.6% on average. The researchers also found that adding trees changed rainfall patterns far downwind of the new forests. The authors believe that extra rain could partially offset the rise in dry conditions expected with climate change.

The findings about increasing rainfall are partly based on observations of existing patterns, but the underlying reasons are less clear. They are probably related to the way the forests interact with cloudy air.

Planting trees has become a major plank of many countries' efforts to tackle climate change all over the world. Prime Minister Boris Johnson says the UK is aiming to plant some 30 million new trees every year by 2025.

A number of studies have looked at the range of impacts, both positive and negative, that the boom in planting is likely to bring. This new paper considers the impact of converting agricultural land across Europe to sustainable forests. The authors use an observation-based statistical model to estimate how changes to forest cover would impact rainfall across the continent.

The researchers found that if there was a 20% increase in forest, uniformly across Europe, then this would boost local rainfall, especially in winter and with greater impacts felt in coastal regions, but as well as local rain, the planting of new forests causes impacts downwind. The scientists found that rainfall in these locations was increased particularly in the summer months.

Taking the two impacts together, in what the team describe as a realistic reforestation scenario, they found that precipitation overall went up by 7.6% in the summer. That's quite a significant finding, according to lead author Ronny Meier from ETH Zurich. It also has implications for climate change.

He told BBC News "Probably the most threatening climate change signal that we expect in relation to precipitation, is this decrease in summer precipitation that is expected in the southern parts of Europe like the Mediterranean and there, according to our study, forestation would lead to an increase in precipitation. So the forestation would probably be very beneficial in terms of adapting to the adverse effects of climate change."

However, the authors also point out that the increased rainfall could have potentially negative impacts by boosting rainfall patterns that have already been affected by climate change, particularly in the Atlantic region.

The authors say that the reasons behind these local and distant impacts on rainfall are uncertain - they point out that the cloudy air that produces rain tends to stay longer over forested areas. And the rougher nature of these forests may trigger the rain.

Ronny Meier said "A forest is a much rougher surface than agricultural land. "So, it induces more turbulence at the land-atmosphere interface, and also, the forest exerts more drag on to the atmosphere than agricultural land."

"We think that this drag, this higher turbulence over the forests is probably the main reasons for the fact that we find more precipitation in regions with more forests."

The new forests tend to evaporate more moisture to the atmosphere than agricultural land and this extra supply is the main reason behind increased rainfall downwind.

For the authors, the fact that trees planted in one country may have implications in another means that the world should really consider all the impacts of how we use land.

It also shows once again, that the idea of solving climate change with trees is not as simple as it is often portrayed.

"Planting trees is certainly not a quick fix for climate change," said Prof Wim Thiery, from the Free University of Brussels, Belgium, who was not involved in the new study.

"Adding new trees or restoring lost forests can never compensate for the greenhouse gas emissions arising from the burning of fossil fuels. We need to stop generating those emissions in the first place, but cutting back on our emissions won't be enough: we will also need to actively remove carbon from the atmosphere should we wish to stay below 1.5°C of warming. From that perspective, tree planting emerges as a potential candidate for generating these negative emissions, but planting trees should never be an excuse for not acting on reducing our carbon emissions by all means possible."

The research has been published in the journal Nature Geoscience.

James Cleaver (Salhouse)

James Cleaver, our Tree Warden for Salhouse and Member of our Executive Committee, has resigned his position with immediate effect. James set up our tree nursery in Salhouse and has been most successful in ensuring that it met all biosecurity requirements. Unfortunately, we shall not now be able to continue with the nursery and it is now closed. We thank James for his efforts on behalf of the Network and wish him well for the future.

HS2 Announces 700,000 Trees Planted and Over 100 New Habitats Thriving

NOW, you all know very well that I am totally opposed to the construction of HS2. That ecological disaster currently destroying the wonderful ancient woodland of the Chilterns. However, I am aware that there are two sides to every story … the truth as I see it and the codswallop regularly dished up by HS2 and I like to give balanced view … is MINE!!!

So, with that in mind I recently read on www.railpro.co.uk that, as part of its "extensive environmental programme", HS2 announced last month that its contractors have now planted 700,000 trees and created over 100 wildlife sites along the route between the West Midlands and London.

The wildlife sites represent a mix of different habitat types, including grassland, woodland, scrub and ponds and are already havens for wildlife including birds, bats, barn owls, badgers, great crested newts, butterflies and dragonflies.

HS2 Ltd and its environmental contractors have designed tailored ecology plans that provide habitats for local wildlife and protected species including new badger setts, bat houses, bird boxes, reptile banks and bug houses, along with wildflower seeding, aquatic habitat creation and the reintroduction of native flora to help local wildlife populations thrive.

Up to 7 million trees will eventually be planted alongside the line from the West Midlands to London and HS2 will leave behind more than 33 km² of new woodland, wildlife and river habitats. The equivalent of 23 new Hyde Parks lining the spine of the country.

In addition, HS2's Woodland Fund has also allocated over £1.2m as part of a grant scheme managed by the Forestry Commission, with 213,000 trees already planted including 92 ha of new woodland creation and 52 ha of ancient woodland restoration. For example, a project at Avon Wood in Warwickshire has created a diverse new 11-hectare woodland within three miles of the new railway. More than 18,000 new trees have been planted there, with 30% of the woodland being oak, with the rest mainly made up of hornbeam, alder, beech, lime, holly and birch.

HS2 continues to progress with potential new schemes to be supported through the Woodland Fund, which could eventually support an additional 440 ha of new native woodland creation as well as the restoration of 245 ha of existing ancient woodland sites.

Mark Bailey, HS2's Head of Natural Environment said "HS2's Green Corridor is the largest single environmental project in the UK and these figures for tree planting and habitat creation demonstrate fantastic progress so far.

"We aim to leave behind habitats that can sustain healthy populations of UK flora and fauna, creating a network of bigger, better-connected, climate resilient habitats and new green spaces for people to enjoy.

"These new sites across Phase One show how the project is already improving landscapes around the new railway, ensuring HS2 protects the UK's precious biodiversity."

Richard Greenhous, Director of Forest Services, Forestry Commission said "As administrators of the HS2 Woodland Fund, we recognise and welcome the opportunities the HS2 Green Corridor brings to people, places and nature along its route. The activity supported by the Fund supports the reversal of habitat fragmentation, by creating native and extending ancient woodlands, and we will continue to work with HS2 and our Defra colleagues to ensure that the inevitable adverse impacts of the scheme will be more than counteracted by the legacy it creates. We therefore welcome these tree planting and habitat creation achievements as just the start of HS2 Ltd and landowners delivering this ambition."

Every habitat site is designed specifically to support local biodiversity, to link up existing wildlife habitats and create ecological networks which help to protect, maintain and enhance biodiversity and allow species to move through the landscape.

In Warwickshire, Finham Brook was previously a short-grazed field with no flowers and very few invertebrates. Since 2018, HS2's contractor Keystone Environmental has planted over 6,000 trees, created four new ponds and a new 35 m reptile basking bank. The ponds are already being used by great crested newts, skylarks, barn owls, badgers, and dragonflies and butterflies in the summer months.

Again in Warwickshire, near Stoneleigh Park, a 'training pond' for otters has been created so pups can safely learn anti-predator behaviour and foraging and hunting skills, before they take to the nearby River Avon. Artificial burrows and perches have also been established for kingfishers, while a bat house offers a mix of roosting sites to different species. Ecologists imagined it could be two years before it was occupied, but bats moved in within weeks.

At South Cubbington Wood in Warwick-shire, environmental contractor Five Rivers Environmental Contracting have planted 60,000 trees, along with species–rich grasslands. They have created seven new ponds designed for newts to breed in, as well as attracting other wildlife such as frogs, swallows, swifts and badgers. Like many of HS2's new habitat sites, Cubbington has public rights of way, so local people are able to enjoy the habitats that have been created.

At Bernwood in Buckinghamshire, an ecologically and historically valuable area includes a network of ancient woodlands that are home to a range of wildlife, including rare and important species like Bechstein's Bat and the Black Hairstreak butterfly. HS2's extensive tree planting here has linked existing woodlands to create new bat flight lines away from the railway corridor, and several green bridges will maintain connectivity across the railway and between habitats.

In the Colne Valley, HS2 has revealed ambitious plans to create one of the largest areas of chalk grassland on the edge of the Chilterns in the Colne Valley. The site will receive a continuous supply of chalk from the nearby tunnelling underneath the Chilterns Hills until 2024, helping to establish over 127 ha of new chalk grassland, woodland, wood pasture and wetland habitats. Field trials are currently in preparation ahead of final seeding, and planting of trees and shrubs in 2025.

Editor's note.

Being totally open-minded and not in the slightest biased … what a load of old tosh this is. If they hadn't destroyed so much ancient woodland they wouldn't have to "restore" it.

I have news for HS2. Ancient woodland is land that has been continuously wooded for 400 years. You don't destroy it then "restore" it and you can't plant it elsewhere.

How dare you insult my intelligence?!

TESS Colley, writing on www.endsreport.com, reports that as peers push for new sites to be maintained 'in perpetuity', it has been revealed in the House of Lords that ancient woodland will fall outside of the biodiversity net gain (BNG) commitment made by HS2.

In the sixth day of the Lords' Environment Bill debate, peers discussed an amendment which would extend the BNG requirement to major infrastructure beyond the nationally significant infrastructure regime, including projects consented through hybrid bills, such as those that created HS2, and any future consent mechanisms.

During the debate, Baroness Young described her concerns following a letter peers had received from environment minister Zac Goldsmith, explaining that because ancient woodland could not be replaced, it would be out of the scope of the BNG objective for HS2.

"Therefore", she said, "HS2 will be able to boast publicly of being a net gain project, while still being the single biggest cause of damage to our declining and irreplaceable ancient woodland. This is, frankly, misleading if not mendacious."

HS2 has voluntarily committed to deliver BNG on the Crewe-Manchester leg, but on this Young said "Of course, HS2 can never deliver BNG as long as it is damaging ancient woodland, which is an irreplaceable habitat and therefore represents an irreplaceable biodiversity loss."

She added These big government-sponsored, taxpayer-supported and highly controversial projects should be like Pharaoh's wife and be obligated to deliver the highest standards of biodiversity net gain."

In response, Goldsmith sought to reassure peers: "When a major infrastructure project is brought forward, for example, through a future

hybrid bill, and granted deemed planning permission under the Town and Country Planning Act 1990, it would be subject to the biodiversity net gain condition unless explicitly exempted."

He added: "We all acknowledge that ancient woodland is irreplaceable so it cannot meaningfully or realistically be compensated for by net gain."

This, he said, was not "mendacious" but "a simple observation and one that holds true".

A crossbench group of Lords also called on the government to amend the BNG requirement so that newly created sites would be maintained 'in perpetuity', rather than just 30 years.

Peers welcomed the government's move to require BNG to apply to nationally significant infrastructure projects, but Baroness Hayman described the time-limited nature of the proposed scheme as a "significant flaw".

"Thirty years, in terms of nature, is merely a blink of an eye", said Baroness Bennett, describing the 30-year requirement as "grossly inadequate".

In the government response, Lord Goldsmith pushed back on the criticisms, saying it was not the case that BNG sites would be "simply torn up after 30 years", and urged peers to remember "there is already a wide range of protections and management incentives for habitats, which would apply to BNG sites after the 30-year requirement".

When pressed on which protections these were, Goldsmith said he couldn't be specific because it depends on the type of site created, but that "it is not easy to get permission to destroy important ecological sites".

"As I have said in this and in many other debates, we intend to build on those protections," he said.

He continued: "The idea that, in 30 years, it will not be significantly harder to grub up valuable ecosystems - even 30 year-old ecosystems, which are important - is highly unlikely or virtually impossible to imagine."

Commenting on the debate, Ruth Chambers, senior parliamentary affairs associate for Greener UK said: "Requiring developers to ensure that their plans deliver a net gain for wildlife will help tackle the nature crisis, but allowing this to potentially evaporate after thirty years is an Achilles heel in this otherwise welcome policy. We call on the government to heed the strong cross-party consensus that these wildlife habitats must be maintained for the long term."

Lyme Disease

LYME disease is a bacterial infection that can be spread to humans by infected ticks. It's usually easier to treat if it's diagnosed early. Ticks pick up the bacteria, called *Borrelia burgdorferi*, from an animal such as a mouse or bird and then pass it on to the next animal it feeds on … which could be you

At this time of the year Tree Wardens are out clearing the vegetation around the trees they planted in recent years, or carrying out other conservation tasks. Lyme disease is on the increase and as we are particularly susceptible to it we should all follow the advice given by Lyme Disease Action.

Ticks carrying disease are found across the UK in both town and countryside. Not all ticks are infected. The infection rate in any place in the UK varies from zero to about 20%. Infection rates in Europe are higher. Ticks can be very small and go unnoticed. They are most active from March to October, but they can be active on mild winter days. You will not feel the tick attach to you, so check your skin and that of children.

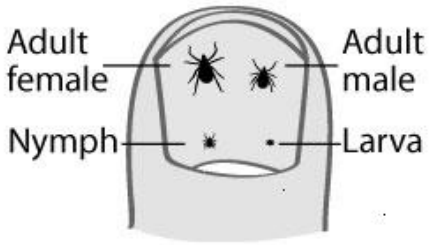
Many people with early symptoms of Lyme disease develop a circular red skin rash around a tick bite. The rash can appear up to 3 months after being bitten by a tick and usually lasts for several weeks. Most rashes appear within the first 4 weeks.

Ticks are related to spiders, mites and scorpions. Many different species of tick live in Britain, each preferring to feed on the blood of different animal hosts. The one most likely to bite humans in Britain is the Sheep tick, or Castor Bean tick, *Ixodes ricinus*. Despite its name, the sheep tick will feed from a wide variety of mammals and birds.

Bites from other ticks are possible. Public Health England's Tick Surveillance Scheme has reported the following ticks collected from humans:

- the Hedgehog tick, *Ixodes hexagonus*;
- the Passerine tick, *Ixodes frontalis*, normally found on birds;
- the Ornate Cow Tick *Dermacentor reticulatus*. This tick is currently only recorded in west Wales, north and south Devon and Essex, mainly in coastal sand dunes and marsh, but recently in Essex grassland. It carries canine babesiosis which is a risk to dogs, and it is implicated in transmission of Tick-borne Encephalitis (TBE). This tick has ornate markings on its back and is often pictured in UK newspapers, despite its rarity in the UK!
- The Red Sheep Tick *Haemaphysalis punctata* found on the South Downs;
- The Rabbit Tick *Ixodes ventalloi.*

These are amongst the 20 tick species recorded as endemic to the UK. Most of them are specialist parasites of wildlife, but do occasionally find their way onto pets and humans.



There are different ticks in other parts of the world and they carry different diseases. If you take your dog abroad, be aware of this and take suitable precautions. The Brown Dog Tick *Rhipicephalus sanguineus* has been brought into the UK from Europe on dogs and can survive and reproduce inside a home, unlike the native UK ticks. In the USA the highest risk comes from the Deer tick, *Ixodes scapularis*, but this is not known in Europe.

There are four stages to a tick's life-cycle: egg, larva, nymph, and adult. Larvae, nymphs and adults spend most of the time on the ground protected by leaf litter, leaving this protection to find a meal. They feed only once in each stage, staying attached for a few days, then dropping to the ground to moult into the next stage or overwinter. The whole life cycle from egg to adult lasts around 2 years.

To the naked eye the larvae look like minute pale spiders, not much bigger than a full stop. Nymphs are slightly larger and darker, pinhead or poppy seed size. Larvae have six legs and nymphs and adults eight. It is the nymph which is most likely to bite you.

Ticks can be found in any place with moist air where they are protected from drying out.

"*I ricinus* is sensitive to climatic conditions, requiring a relative humidity of at least 80% to survive during its off-host periods and is therefore restricted to areas of moderate to high rainfall with vegetation that retains a high humidity (ie litter layer and soil remain humid during the day). Typical habitats vary across Europe, but typically include deciduous and coniferous woodland, heathland, moorland, rough pasture, forests and urban parks."

Ticks can also sometimes be found in private gardens, especially those with shady shrubberies or deep vegetation and a strong local wildlife population.

Numbers vary from place to place and from year to year, but ticks can be found across the UK. Not all ticks carry disease, and infection rates in any one place may fluctuate from year to year.

Ticks feed on the blood of other animals. If a larval tick picks up an infection from a small animal such as a mice, when it next feeds as a nymph it can pass the infection to the next animal or human it bites.

They cannot jump or fly, but when ready for a meal will climb a nearby piece of vegetation and wait for a passing animal or human to catch their hooked front legs. This behaviour is known as questing. The tick will not necessarily bite immediately, but will often spend some time finding a suitable site on the skin, so it is

important to brush off pets and clothing before going inside.

Once a tick has started to feed, its body will become filled with blood. Adult females can swell to many times their original size. As their blood sacs fill they generally become lighter in colour and can reach the size of a small pea, generally grey in colour. Larvae, nymphs and adult males do not swell as much as they feed, so the size of the tick is not a reliable guide to the risk of infection. If undisturbed, a tick will feed for around 5 to 7 days before letting go and dropping off.

The bite is usually painless and most people will only know they have been bitten if they happen to see a feeding tick attached to them.

The risk of bacterial infections increases the longer the tick is attached, but can happen at any time during feeding. Viruses can be passed immediately. As tick bites are often unnoticed, it may be difficult to determine how long it has been attached. Any tick bite should be considered as posing a risk of infection although the risk in the UK is low.

Antibiotic treatment "in case" of disease (known as prophylaxis) is not recommended. The small red mark left by the tick will fade over a few days, but see your GP if any symptoms of illness develop over the next couple of weeks.

Adults are most often bitten around the legs. Small children are generally bitten above the waist—check their hairline and scalp.

The Public Health England website has some useful pages on ticks including a video and details of their tick recording scheme.

There are several diseases that can be caught from a tick bite in the UK but distribution and rate of infection is not fully documented. In current studies of UK ticks, Lyme disease is by far the most common infection carried.

Patients are rarely tested for the other diseases, many of which have symptoms that overlap those of Lyme disease, so how often people are infected in the UK is unknown. Most of these infections respond to the same antibiotic treatment as Lyme disease. The main tick-borne diseases are:-

Anaplasmosis is sometimes called Human Granulocytic Anaplasmosis (HGA) is caused by the bacterium *Anaplasma phagocytophilum*. It tends to cause more fever than Lyme disease and gives rise to abnormal liver function tests and low white blood cells and platelets. There have been some UK cases, but testing of potential cases is rarely carried out. Anaplasmosis responds to the same antibiotic as Lyme disease.

Babesiosis is caused by one of three species of Babesia parasite. It infects red blood cells and can cause anaemia, dark urine as well as significant headache, fever and abdominal complaints. Most people have very mild symptoms but older people and those

immunocompromised are at greater risk of severe disease.

There was a suspected English case in 1974, the first Scottish case was reported in 1979 and a confirmed case in England in 2020. It is thought that most people will not need treatment, so it is possible that there may have been many un-diagnosed cases. Babesiosis is treated with specific antibiotics and quinine. See our news item.

Rickettsiosis is caused by species of Rickettsia bacteria and also transmitted by mites. It can cause a spotty rash, fevers and sometimes a black "eschar", or scab, at the site of the tick bite. Positive blood tests have been recorded in UK patients. Rickettsia infections respond to the same treatment as Lyme disease.

Borrelia miyamotoi causes a Lyme-like illness but without an EM rash and with more fever (sometimes coming and going) and headache. In some cases meningitis develops. There have been no reported UK cases.

Tick Borne Encephalitis Virus (TBE) is relatively new to the UK. It was found in a few UK ticks in 2019 and 2 cases have now (August 2020) been reported. It causes a few days of 'flu like symptoms, a gap of some days, then possibly meningitis. It is endemic in much of Europe and Asia. A vaccine is available.

Louping ill virus is common in sheep, grouse and other animals but human cases are rare. It is endemic to UK upland areas and causes a severe infection of the central nervous system.

All the above except Louping ill are more common in mainland Europe. North America has a different spectrum of tick-borne diseases as well as different ticks so American information is often not applicable to the UK.

The PHE Tick Surveillance Scheme regularly screens collections of ticks for diseases. The UK Human Animal Infections and Risk Surveillance group (HAIRS) meets every month and issues reports and risk assessments on emerging tick-borne bacteria and viruses in the UK.

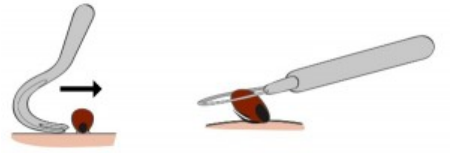
Some ticks carry more than one disease at the same time and could transfer them to you in a single bite. The resulting symptoms can be confusing and liable to misdiagnosis. Treatment in such cases may be difficult. It is not known how often this happens in the UK.

Your main aims are to remove the tick promptly, to remove all parts of the tick's body and to prevent it releasing additional saliva or regurgitating its stomach contents into your bite wound.

Use a proprietary tick removal tool* (available from this website or many vets and pet shops), and follow the instructions provided. Two common types of removal tool available are illustrated on this page; the hook and the loop are designed to be twisted to facilitate removal. These tools will grip the head of the tick without squashing the body.

Ticks can be removed with pointed tweezers (not blunt eyebrow tweezers!), although this method is not recommended. Grasp the tick as close to the skin as possible; without squeezing the tick's body, pull the tick out without twisting (it is difficult to twist tweezers without separating the tick's head from its body). There may be considerable resistance.

If no tools are available, rather than delay use a fine thread, something like cotton or dental floss. Tie a single loop of thread around the tick's mouthparts, as close to the skin as



possible, then pull upwards and outwards without twisting.

Start by cleansing the tweezers/tool with antiseptic. After tick removal, cleanse the bite site and the tool with antiseptic or soap and water. Wash hands thoroughly afterwards.

Save the tick in a container in case a doctor asks for evidence that you have been bitten

(label it with date and location). Public Health England is also currently running a scheme to investigate ticks.

Do not squeeze the body of the tick, as this may cause the head and body to separate, leaving the head embedded in your skin.

Do not use your fingernails to remove a tick. Infection may enter via any breaks in your skin, eg close to the fingernail.

Do not crush the tick's body, as this may cause it to regurgitate its infected stomach contents into the bite wound.

Do not try to burn the tick off, apply petroleum jelly, nail polish or any other chemical. Any of these methods can cause discomfort to the tick, resulting in regurgitation, or saliva release.

After you have removed your tick, keep it in a sealed container and send it to Public Health England's Tick Surveillance Scheme. They will identify it for you and add the information to their database.

Alternatively, kill the tick by crushing it and flushing it down the toilet, or by folding it in a strip of sticky tape and placing it in the waste. Be aware that engorged ticks will contain potentially infected blood, which may splatter when crushed. Do not crush the tick with your fingers and do not allow the crushed tick or the blood it carried to contact your skin.

Don't worry! The risk from a UK tick bite is very small and you don't need treatment unless you develop symptoms of illness. The red mark left by the tick bite will fade over a couple of days, so perhaps just make a note on a calendar or diary so if necessary you can tell your doctor when the tick bite was and where it was on your body. Lyme disease symptoms appear on average about 2 weeks after the tick bite.

If you have left a small part of the tick mouthparts in your skin, which can sometimes happen, medical advice is just to leave it and your body will deal with it. You can do more damage digging around with a needle to try to get it out, and this can be particularly distressing for children.

The tick that generally bites humans (the nymph stage) can be as small as a poppy seed as seen here beside the fingernail.

Working Together to Plant a Tree for the Jubilee

THE TREE COUNCIL is delighted to have been invited to be a key delivery partner of The Queen's Green Canopy, a unique tree planting initiative encouraging people across the UK to 'Plant a tree for the Jubilee' in honour of the Queen's history-making 70 years of service to the nation.

Everyone will have a part to play, from individuals to community groups, villages to cities, schools to corporates.

Beginning in October 2021 with this year's tree planting season, The Queen's Green Canopy will run until the end of the Jubilee year in 2022. It will focus on planting sustainably, particularly in disadvantaged neighbourhoods, to create an environmental and cultural legacy in honour of the Queen's leadership and to mark the longest reign of any British monarch in history.

We are excited about the wonderful opportunities the initiative presents for both The Tree Council and the Tree Warden Network and are currently exploring all the ways in which you, as Tree Wardens, can get involved in this nationwide campaign.

Some of you, like Suffolk, may already be engaged. In particular, we are looking forward to launching the Jubilee Fund, a new community grants programme made possible by the generous support of our new Jubilee Partners.

We are in the process of securing 70 green-hearted corporate partners to join our Jubilee Partner programme, which will bring companies together to plant trees and work alongside us to enhance treescapes across the UK.

Each Jubilee Partner's contribution will allow us to plant 500 trees and 100 metres of hedgerow. Collectively, that's an incredible 35,000 trees and 7 kilometres of hedgerow! All the planting will be featured on The Queen's Green Canopy online map and Tree Warden Networks, community groups and schools will be invited to apply to the Jubilee Fund to deliver community planting projects in their areas.

We look forward to sharing more details about this over the coming months, as well as further information about other opportunities to get involved. In the meantime, you can find out more about The Queen's Green Canopy online at www.queensgreencanopy.org and join us in looking forward to a royally exciting year for trees!

Blue Plaque to be Placed at Stump of 300 Year Old Oak Felled by HS2 Near Leamington

An article by Philip Hibble published on www.leamingtoncourier.co.uk

THE photo became an iconic image as protesters mourned the felling of a large oak tree that was removed by HS2 workers and in the next few weeks, a blue plaque will be placed at the stump of the Hunningham Oak. The tree, nominated for Tree of the Year 2020, stood for some 300 years on a country lane between the two villages of Hunningham and Offchurch.

Villagers will gather at Offchurch at 11am on August 1 before the unveiling of the plaque.

The plaque is being installed by the Hunningham Oak Blue Plaque Supporters (HOBPS). Placed at the stump of the tree, the plaque will be both actual and virtual, with the first ever augmented reality Blue Plaque image available via a QR code.

"This remarkable tree, one of many thousands, was lost to our community on September 24 2020, when it was felled by HS2 in the drive for ever faster train links between Birmingham and London" says Eleanor Allitt, speaking on behalf of HOBPS.

"The Hunningham Oak was more than a tree, it was a wonderful and vital asset to our countryside and community."

"While blue plaques have traditionally placed on houses where famous people have lived, trees such as the late Hunningham Oak work tirelessly to support human life on our planet. This blue plaque is completely independent of English Heritage. We are placing this plaque near a magnificent tree, felled by HS2, to recognised and highlight the incredible life-sustaining contribution made by the Hunningham Oak to our countryside.

"This blue plaque is a reminder to us all that trees are felled at our peril, such is their huge ecological significance at this time of an internationally recognised global climate emergency."

Richmond Park Defends Tree Pruning Regime

An article by Frankie Adkins published on the Richmond and Twickenham Times

THE ROYAL PARKS has defended its pruning regime of Richmond Park trees after criticism from an independent arborist. The charity said its management teams were "highly regarded experts" who "love and care for the trees" in response to claims that trees in the park are being "ruthlessly" pruned.

Their comments come in the wake of a petition from professional arboriculturist and tree officer, Tom Roser. In an open letter to the Royal Parks, he wrote: "In my professional opinion a number of trees in Richmond Park appear to have been subjected by The Royal Parks to a ruthless pruning regime.

"This appears to me to have resulted in a number of trees either dying or suffering a great deal of harm directly as a result of the works carried out," he wrote.

However, the Royal Parks have refuted all claims of damage to trees.

A spokesperson said: "The Royal Parks is aware that an arborist, Mr Tom Roser, has been circulating a document to local residents as well as establishing a petition and fundraising campaign relating to his opinions about how the trees are managed in Richmond Park.

The Royal Parks strongly refute the conclusions that Mr Roser puts forward. The Royal Parks has answered all of his points individually on more than one occasion, responded to a series of his requests made under the Freedom of Information Act at significant expense to The Royal Parks Charity and last year met with Mr Roser to discuss his views. Regrettably we could not agree with his views and he has persisted with his campaign."

Richmond Park is home to around 1,200 ancient trees, some of which pre-date the park's enclosure. The old English Oaks were traditionally managed by pollarding, cutting back the crown of the tree above the reach of the deer to stimulate the growth of foliage and timber for harvesting.

The Royal Parks added that pruning decisions take into account increasing threats from pests and diseases. A spokesperson added: "Our management teams are professional, dedicated and highly regarded experts in their field who love and care for the trees of Richmond Park with many decades of collective professional experience.

"Our actions take into account the full health and structure of the tree and its surroundings, increasing visitor numbers and a risk management assessment. Decisions are also taken in the context of the increasing pressures from tree pests and diseases and the emerging impacts of more extreme and increasingly unpredictable climate conditions.

"In addition, the team regularly use independent consultants and specialists to provide independent advice and verify decisions. We abide by all the current British Standards for tree and specialist veteran tree management methodologies.

Scientists Believe Scotland's Loneliest Apple Tree Could Date Back to Ice Age

An article by Krissy Stirrer published on www.sundaypost.com

SCIENTISTS believe a lone apple tree on an uninhabited Hebridean island may date back to the end of the last ice age. The crab apple tree *Malus sylvestris* on Pabaigh Mor was discovered growing on the windswept cliff face in 2003 but its presence has proved a mystery as there are no known native apple trees on the nearest islands of Lewis, Harris and North Uist.

Now a scientist who has studied it has formed a theory that it may have taken root at the end of the ice age around 11,000 years ago as the glaciers rolled back leaving the land exposed.

This theory has been strengthened by the existence of another lone apple tree on an inaccessible cliff in Shetland. Another possibility is that the tree dates back to the Viking era when the seas around the Hebrides were a trading highway.

Professor Paul Smith, the plant recorder for the Outer Hebrides for the Botanical Society of Britain and Ireland, said: "If we go back into Viking and subsequent times, actually the west of Scotland would have been a highway by sea.

"There's a possibility it's come through trading that way from somewhere else. Or it may be that it's a really, really rare thing that's persisted since the glaciers last rolled back, and it's been part of a tiny, tiny population that's persisted in one place.

"That second idea is perhaps supported by the fact there were two populations found on Shetland, both in places that looked as if they weren't planted as they were on the cliffs in the middle of nowhere. It's all a bit speculative. It's one of life's little mysteries."

The tree on Pabaigh Mor was first spotted in 2003, and Smith later visited the island and took samples from it. They were DNA tested by Dr Markus Ruhsam, a molecular ecologist at the Royal Botanic Garden Edinburgh, who established it was a malus sylvestris.

However, he was also unable to explain how the gnarled eight-foot tree came to be growing in a crevice on the cliff face. Apple seeds or pips are usually dispersed by being eaten by mammals. Seabirds might peck at the flesh but would be unlikely to eat or fly off with the whole fruit. Dr Ruhsam said: "There's a lot of uncertainty about how it got there and how old it is.

"It might have been that an apple tree dispersed into water and went into the sea and a seabird picked it up and deposited it there. There are very high winds and it's very wet. I would say it is quite off the range of a normal apple tree climate."

Companies Should Put Climate Cash Towards Saving Forests

An article by Emma Rumney published on www.reuters.com

COMPANIES looking to offset their climate-warming emissions can have a bigger impact backing governments' initiatives to halt forest destruction rather than planting new trees, an environmental group said last month. Demand is growing for carbon offset credits, prompting some of the world's biggest corporations to announce tree-planting initiatives.

However, a policy paper written by Emergent, a US-based non-profit partnered with organisations including the UN Environment Programme, argued that those efforts still fall far short of what is needed.

"Are we trying to solve climate change here or have some nice local impacts we can put on a brochure?" Eron Bloomgarden, Emergent's executive director, said.

Currently, companies mainly buy carbon credits for relatively small individual projects, many of which focus on tree planting, that make it easy to tie their investments to specific results.

Emergent said that, with an area of tropical forest the size of New York's Central Park cleared every 15 minutes, there is much greater value in helping under-resourced governments preserve existing forest.

Deforestation delivers a double whammy to emissions reduction, removing trees that would have absorbed carbon dioxide from the atmosphere while also releasing carbon the trees already had stored.

Few effective mechanisms allowing companies to back government efforts are available however. So Emergent wants to establish a marketplace for carbon offset credits linked to government-led tropical forest conservation initiatives.

Roughly $1 billion in global public finance is available annually to support initiatives of the mainly developing nations home to the world's tropical forests, said Frances Seymour, a forests and sustainability expert with the World Resources Institute.

Seymour is also board chair at the Architecture for REDD+ Transactions, an initiative that aims to help large government deforestation programmes unlock private investment.

Tens of billions of dollars more are needed from the private sector, she said, and there was untapped demand in the global carbon market to fill the gap.

"Such demand could incentivise governments to do what only governments can do - actions to protect forests such as recognising indigenous rights, enforcing the law and regulating commercial forest exploitation more effectively," she said.

Bloomgarden and others, who pointed to the need to ensure programmes better benefit the local communities they impact, admit the approach is not perfect.

The drivers of deforestation are complex, often entwined with corruption, organised crime and poverty, making them particularly hard to address, said Giancarlo Raschio, a senior manager at the carbon offset registry Gold Standard.

"It's not only a matter of having more resources," he said.

Tree Preservation Orders and Conservation Area News

Broadland Tree Preservation Orders Served, Confirmed and Revoked

TPO Number	Address	Served	Trees Protected	Status
2021 No 1 (1314)	Land at Mokyll Croft, **Taverham**	14/03/2021	9 x sycamore and 1 x oak	Provisional
2021 No 2 (1315)	Land at Wood Green, **Salhouse**	31/03/2021	1 x cypress	Provisional
2021 No 3 (1316)	Land west of 29 St Edmunds Road, **Acle**	26/05/2021	1 x oak	Provisional
2021 No 4 (1317)	19 Sydney Road, **Spixworth**	08/06/2021	2 x Scots pine	Provisional
2021 No 5 (1318)	Footpath adjacent to Oak House, 34 Yarmouth Road, **Blofield**	22/06/2021	1 x oak	Provisional
2021 No 6 (1319)	8 Church Street, **Old Catton**	22/07/2021	1 x spruce	Provisional

Current Works to Trees Subject to a Tree Preservation Order and Section 211 Notifications for Works to Trees Within Conservation Areas

App No	Address	Cat	Species / Requested Works	Decision
20191982	Bircham Centre, Market Place, **Reepham**	211	T1 and T2 holly – fell.	31/12/2019
20201760	Land West of Abbey Farm Commercial Park, Church Street, **Horsham St Faith**	TPO	G1 5 x ash and sycamore and G19 1 x verge tree - full details provided within the attached cover letter.	21/09/2020
20201835	26 Rosemary Road, **Sprowston**	TPO	T11 Scots pine – fell. T22 & T44 common oak - reduce laterals by up to 2m; current width 7m, reduce to 5m. T27 & T35 common beech - crown raise to 4m. T36 common beech - reduce laterals from 9m to 5.5m wide. T37 common beech - reduce crown by 1.5m; current height and width 13m/6.5m, reduce to 10m/5m. T38 common beech - reduce laterals by 2m; current height and width 10m/8m, reduce to 7m/5m. T39 common beech - reduce crown by up to 2m; current height and width 12m/8m, reduce to 10m/6m. T40 common beech - crown raise to 5m. T41 copper beech - reduce crown by 1.5m, current height and width 14m/7m, reduce to 12m/5.5m. T46 common oak - reduce laterals by 1m & width from 6 to 5m.	06/10/2020
20210482	The Old House, 15 Church Street, **Coltishall**	TPO	T1-T - rebalance crowns 7 by pruning 4-5.m to suitable growing points from the front of the row of the beech trees	26/05/2021
20210643	Woodland adjacent to Hospital Road and Water Lane (to the north and west of Little Plumstead C of E Primary School), **Little Plumstead**	TPO	T76 sweet chestnut – coppice. T102 sweet chestnut - leaning, weak anchorage – coppice. T355 sweet chestnut - partially failed at base hung up in neighbouring tree – fell. T364 oak - partially failed branch over road - remove branch.	17/06/2021
20210654	20 Spinney Close, **Thorpe St Andrew**	TPO	T1 beech current height 18m & T2 beech current height 20m - 4 to 5 m reduction and pollard section above the crotch.	Split decision
20210666	Avenue House, 10 Staitheway Road, **Wroxham**	TPO	G1 - 6m high conifers close to garage to be removed. T2 - 16m high pine. Raise crown over garage by up to 3.0m (tree owned by neighbour, works agreed with client). H3 - 5m high conifer hedge. Partially lapsed. Remove. T4 - 18m high pine. Remove deadwood and declining branches. T5 - 3.5m high yew. Pollard at 1.4m main union. T6 - 9m high fir. Remove due to location. G7 & G8 - 9m high tree groups to be re-reduced to former cuts and re-shape (approximately 2.0-2.5m crown loss). T9 & T12 - 5m high conifers and G13 - 4.5m high *Acers*. Fell. T10 - 21m high pine. Remove 2 lowest branches over house, whilst sympathetically and only to branches required to be reduced to re-form shape from limb removal. Excessive needle fall causing issues. G11 - 5m high holly, sycamore x 2 and 1 x lime coppice. Lime to be coppiced, holly and 2 sycamores to be removed.	12/04/2021

20210697	Overbury House, 9 Staitheway Road, **Wroxham**	TPO	T1 fir - reduce limb approaching neighbouring garden by 4m. T2, T4 & T5 lime - remove dead wood down to 40mm at attachment point. T3 & T6 lime - reduce lowest limb over garden by up 2m & remove dead wood down to 40mm at attachment point. T7 yew - crown lift to 2.5m over parking bays & reduce branch approaching on phone line by 1m.	Approved
20210701	84 Mill Road, **Blofield**	TPO	T1 larch - crown lift to 4m by removing lowest major branch on southern portion of crown and removing branch above which looks as though it has partially failed. Remove ivy. T2 Lawson cypress fell due to low amenity value, excessive shading and to benefit neighbouring ornamental pear and larch.	16/04/2021
20210748	44 Keys Drive, **Wroxham**	TPO	*Quercus robur* - selective reduction of overhanging branches 1.5 to 2 m max. Branches in question overhanging log cabin & shed.	26/04/2021
20210776	Carinya, 22 Brook Street, **Buxton with Lamas**	TPO	T1 ash in front garden – approx 22m high and 10m wide. Reduce by 5-6m in height and 2m from sides.	Split decision
20210829	2 Sylvan Way, **Taverham**	TPO	Hornbeam - fell and re-plant to allow development of garage.	Refused
20210834	Buxton Post Office, 9 Brook Street, **Buxton With Lamas**	TPO	Fell due to poor condition and limited life expectancy.	Refused
20210856	Woodhurst, 69 The Street, **Brundall**	TPO	T2 lime - current height 25m. 10m crown reduction. G1 Leyland cypress - height 13-15m. 3m crown reduction.	23/04/2021
20210865	5 The Elms, St Faiths Road, **Old Catton**	TPO	T3 oak - raise the crown about 1m to avoid branches laying on top of/damaging hedge.	Approved
20210868	19 Hilly Plantation, **Thorpe St Andrew**	TPO	G1 group of laurel & yew - cut back over flower borders by 2-3m. T1 yew - reduce by 3m to re-shape canopy leaving a height of approx 5-6m and spread of 4m.	Approved
20210873	Twin Oaks, 15 South Avenue, **Thorpe St Andrew**	211	Cherry – reduce left had trunk from approx 10m by 2m. Remove middle trunk (current length 10m).	Approved
20210878	13 Spinney Road, **Thorpe St Andrew**	TPO	2 x sycamore – fell. Heavily covered by ivy and with substantial unbalanced lean. Risk of damage to property.	Approved
20210890	24 A Dixons Fold, **Old Catton**	TPO	2 sycamore & 1 ash – fell. Crown lift all other trees to approximately 5m.	10/05/2021
20210909	21 Kinsale Avenue, **Hellesdon**	TPO	Lift crown to 3m by removing small low lateral limbs and small secondary branches that are crossing or rubbing and detrimental to the future health, vigour and safety of tree. Deadwood.	Approved
20210933	18 Seton Road, **Taverham**	TPO	T14 Douglas fir - reduce length of over-extended laterals to reduce sail and weight to minimise risk of failure. Work required due to previous failure of this nature. T4 sweet chestnut - remove / coppice limb extending over garden toward house to minimise risk to garden fence & pergola.	Split decision
20210935	Woodlands, 12 Staitheway Road, **Wroxham**	TPO	Fir - fell due to danger of falling. 2 x cypress - fell due to blocking light of neighbouring property and causing damage to fence.	Approved
20210960	Field House, Heydon Road, **Aylsham**	TPO	T18 grand fir - reduce height to same as surrounding canopy.	Approved
20210961	31 Recreation Ground Road, **Sprowston**	TPO	Beech - fell and re-plant with another tree due to roots causing issues with power supply.	Refused
20210966	UCP Zeller Plastik, Salhouse Road, **Sprowston**	TPO	G1 overhanging canopies - cut back to full height to give 1m clearance over path. Trees on adjacent woodland will be crown raised to a height of 5.5m. G3 - 3 stems of phototrophic silver birch and one phototrophic beech overhanging boundary. Fell. T1 oak – leaning - Canopy could receive some targeted reduction of the peripheral crown edge over road, reducing selected branches back by around 1.5 – 2m.	Approved
20210967	18 Anchor House, Anchor Street, **Coltishall**	211	*Magnolia grandiflora* - trunk size at base approx 0.25m. Thin branches to be trimmed back approx 600mm. 3 x silver birch - height approx 14m. Trunk at base approx 0.35m. Overhanging branches approx 30mm tapering to approx 5mm to be cut back by approx 2m.	Approved
20210968	Spinney Lodge, 82 Taverham Road, **Taverham**	TPO	T1 poplar - fell. T2 Douglas fir - reduce longer laterals extending out of crown by 2.5m keeping shape but lessening end loading. T3 beech - reduce branch ends by 2m over drive into garage. T4 *Acer* - reduce away from house roof to clear by 3m and crown lift over flower bed to 5m. T5 cypress - crown lift to 2.5m.	18/05/2021
20210970	4 Swansgate, **Old Catton**	TPO	T1 whitebeam – fell.	Approved

20210972	Former Oasis Centre, **Thorpe St Andrew**	TPO	T36 cherry - remove dead wood. T23 rowan - fell. T30 sycamore - remove hung up dead tree over path. T61 giant sequoia - remove damaged boughs. T68 red horse-chestnut - reduce canopy on western side above decayed pollard. Remove 30% of secondary growth back to branch unions. T83 beech - thin canopy to remove 30% of secondary growth below 60mm dia back to branch unions. T95 beech – diseased. Fell. T102 beech - thin canopy to remove 30% of secondary growth below 60mm dia back to branch unions.	Approved
20210976	50 Charles Close, **Wroxham**	TPO	T1 oak – fell.	TPO required
20210983	Siennabelles, Scotch Hill Road, **Taverham**	TPO	Remove all dangerous deadwood and any hanging/torn out or hazardous limbs. T1 silver birch –remove. T2 oak - reduce to a monolith.	Approved
20210988	Royal Norwich Golf Club, Drayton High Road, **Hellesdon**	TPO	Details for Condition 13 (Landscaping) and 14 (Tree Protection) of Planning Permission 20151770 (Phase 2)	21/05/2021
20211019	Field House, Heydon Road, **Aylsham**	211	T3 pine - reduce boughs where close to overhead phone lines by removing minor upright limbs 20mm diameter. T18 fir - reduce canopy from 23 to 18m to a sub-canopy growth point.	Approved
20211020	Northwood, 104 Lower Street, **Salhouse**	211	Holly and leylandii - prune 25 to 75 mm.	Approved
20211021	44 Springfield Road, **Taverham**	TPO	2 x oak - crown raise to 5m & thin upper canopy by 20%. 3 x sycamore - crown raise to 5m & reduce height by approx 5m. 3 x silver birch - crown thin by 20% & reduce by approx 5m. All work proposed to allow light in.	12/05/2021
20211025	4 South Avenue, **Thorpe St Andrew**	TPO	G1 - 7 x sycamore growing from and around fallen trunk. Fell. G2 holly - reduce overhanging branches to boundary. T3 holly - reduce height from 8m to 7m.	Approved
20211035	Wilby Cottage, 12 West End Avenue, **Brundall**	TPO	T1 oak - reduction of lateral branches on southern and eastern portions of crown by a maximum of 2.5m (current radial spread 13m). Crown thin of up to 15% and removal of unstable deadwood leaving habitat where stable.	Withdrawn
20211040	45 Millgate, **Aylsham**	211	T1 oak - 2-3 m crown reduction. Neighbour in adjoining Stuart Road property requesting. T2-T4 oak - remove dead wood.	01/06/2021
20211042	95 Bishops Close, **Thorpe St Andrew**	211	Hawthorn in the front garden - current height approx 2.6m, trim by up to 100 mm to maintain spherical shape	Approved
20211045	The Ramblers, 22 Cromer Road, **Aylsham**	211	T1 *Thuja* - fell, cutting stump as close to ground as practical. T2 bay - reduce and rebalance the two bay trees either side of the *Thuja* from 9m to 6m where suitable branch unions exist to ensure successful regrowth and absence of heavy stubs. T3 Norway spruce and T4 ash – fell. Beneath telephone cables. G5 small trees and shrubs - prune in accordance with best management practice. T6 silver birch - reduce lopped birch to a 2.4m stump and allow honeysuckle to take over. G7 limes - re-pollard alternate trees on a two year cycle.	02/06/2021
20211049	Shrubberies, 91 Plumstead Road, **Thorpe End**	211	T4 conifer – fell and replace.	Approved
20211050	5 Mill Close, **Aylsham**	211	T100 oak - current height 20m, current spread 10m. Reduce crown height and spread by maximum 4m reducing back to appropriate pruning points to reduce lever arm action on limbs.	02/06/2021
20211053	Tree Tops, 20 Hilly Plantation, **Thorpe St Andrew**	211	T1 sweet chestnut - fell. Stump will be cut as close to ground level as practicable. Replacement standard beech to be planted in canopy gap to north of T2. T2 oak - reduce crown spread and over-extended limb extending to the south towards house in mid-crown from 12m to approx 8m to suitable unions, to lessen overhang and shading and re-balance crown. T3 oak – crown lift to 5m to improve crown structure. T4 oak - remove storm damage in upper north-west of crown and prune to remedy damage. T5 Scots pine - remove storm damage in crown overhanging footway.	03/06/2021

20211055	246 Plumstead Road East, **Thorpe St Andrew**	TPO	T1 oak - allow 5m clearance from building to reduce shading and falling debris in gutters by reducing crown spread to south from 10m to 6m to suitable branch unions. T2 lime - clean out crown of dead, diseased and crossing branches and reduce southerly crown spread to provide 5m clearance from building to reduce shading and falling debris in gutters by reducing crown spread to south from 12m to 8m to suitable branch unions	03/06/2021
20211059	Land at Shortthorn Road, Stratton Strawless	Hedge	Applied for a felling license for the removal of trees along Shortthorn Road.	03/06/2021
20211062	Eynesford House, Dereham Road, **Reepham**	TPO	T1 & T2 leylandii and T3 birch – fell.	Approved
20211070	8 Church Street, **Old Catton**	TPO	CD1 overgrown fir - fell and replant hedge and suitable alternative tree.	TPO required
20211074	George House, George Hill, **Old Catton**	211	T1 sweet chestnut - reduce crown spread north from 3m to 2m, east from 6m to 3m, south to remain 3m, west to remain 2m. Remove dead top and crown lift to 4m. T2 sweet chestnut - reduce crown spread south from 4m to 3m, east from 7m to 3m, north to remain 3m, west to remain 5m. Crown lift to 4m.	Approved
20211081	7 St Michaels Close, **Aylsham**	211	Oak - current height 24m. Crown reduction of 5m.	Approved
20211096	38 Howard Close, **Thorpe St Andrew**	TPO	T1 oak - canopy extends over neighbours' garden at number 40. Various branches broken off in past and now concerned for safety. Remove limb at approx 7m growing over/towards garden lawn. Laterally reduce lower canopy growing over/towards by up to 1.8m to a suitable growing point.	08/06/2021
20211107	21 Thompson Road, **Thorpe St Andrew**	TPO	T1 oak - heavy southerly bias crown, previous major branch failure on northern portion. Reduce southern spread by 2.5m from 10m, 10% crown thin, crown lift to 5m.	10/06/2021
20211114	39 Church Lane, **Sprowston**	TPO	T1 poplar & T2 oak – fell.	Split decision
20211120	69 Low Road, **Hellesdon**	TPO	Cypress - fell because dying. No amenity value.	Approved
20211122	Cherry Tree Cottage, 15 Plumstead Road, **Thorpe End**	TPO	T1 oak - approx height 18m. Crown clean and raise crown up to 6m by removing branches back to secondary growth points and only primary growth points where not otherwise practicable (but only if under 100mm in diameter). Reduce crown area up to 3m on northern, eastern and western aspects to reduce end loading, particularly on north-western aspect where there is a very large scaffold limb, where there is a hole at the primary growth point at the trunk, which requires investigation after crown clean. T2 oak - approx height 18m. Crown clean. Reduce eastern and south-western aspect of lower lateral branches by approx 2m. T3 oak - approx height 15m. Crown clean. Raise up to 5m. Reduce predominately the south, east and western aspects by approx 2m.	14/06/2021
20211126	20A & 20B Astley Road, **Little Plumstead**	TPO	T1 sweet chestnut - canopy reduction, removing up to 1.5m from branch tips which are closest to the dwelling. Approx northern crown radius of oak T1 is 10m and would be reduced by 1.5m to leave a north crown radius of 8.5m. Remove damaged and hanging/lodged or storm damaged branches and dead wood within the crown. Lift canopy to approx 4m. T2 oak - remove damaged and hanging/lodged or storm damaged branches and dead wood within crown. Lift canopy to approx 4m.	Approved
20211136	15 Drayton Lodge Park, **Drayton**	TPO	Lift canopy and reduce crown.	15/06/2021
20211154	The Red House. Low Road, **Great Plumstead**	TPO	T1 beech – dead. Fell. T2 holly - self-set and obscures existing access drive. Fell T3 & T4 yew - partially sawn through by previous historical works. Poor, suppressed form. Fell. T5 sycamore - broken top with new leader. Poor form. Fell.	17/06/2021
20211163	30 Bishops Close, **Thorpe St Andrew**	211	Tree species unknown - reduce height and reshape.	24/05/2021
20211164	Bordering Eynesford House, Dereham Road, **Reepham**	211	T1 yew current height 9m - reduce sides by approx 1m and crown by 3m. T2 *Eucalyptus* current height 10m - reduce by approx 2m. T3 Monterey cypress x 2 current height 17m - reduce side by approx 3m and crown by approx 5m. T4 conifers x 4 current height 9m - reduce crown by 5m. T6 hollies x 5 current height 7m - reduce crown by 4m. T7 yew, T8 conifer & T9 conifers x 3 - fell.	Approved

20211165	Abbey Farm Commercial Park, Southwell Road, **Horsham St Faith**	211	G1 mixed species - fell remaining pines. T720 - T729 ash – fell. T729 oak – remove hanging branch.	Approved
20211170	31 Filby Road, **Badersfield**	211	T1 ash - extension of driveway on to grass area over roots. Cover roots with either tarmac or shingle.	21/06/2021
20211176	146 Thunder Lane, **Thorpe St Andrew**	TPO	See Arboricultural Impact Assessment.	21/06/202i
20211181	23 Barnby Road, **Badersfield**	TPO	Oak - cutback selected branches (currently 10m in length) overhanging number 25 by up to 4m.	28/06/2021
20211188	The Ferns, Beech Road, **Wroxham**	211	Fir - current height is 5m. Reduce by 2m in height.	26/06/2021
20211196	25 Cromer Road, **Aylsham**	211	T1 sycamore & T2 pine – fell.	09/06/202
20211208	Tall Trees, 17 Pond Lane, **Drayton**	TPO	T1 Scots pine – dismantle. T2 Scots pine - remove 2 first laterals overhanging patio.	17/06/2021
20211212	126 Norwich Road, **Wroxham**	211	Willow - current height 8m, reduce to 1.5m. Conifers x 8 - current height 8m, reduce to 6m. Horse chestnut - current height 8m, fell.	19/07/2021
20211213	14 Blofields Loke, **Aylsham**	211	*Prunus* – fell.	Approved
20211221	22 Catton Court, **Old Catton**	TPO	T13, Tag No T813 sycamore - remove dead section of upper crown back to live growth. Clean out remaining crown of deadwood, suppressed and crossing branches. T16, Tag No T816 bay - remove main stem and retain basal shoots to form multi-stemmed tree.	25/06/2021
20211231	6 South Walk, **Thorpe End**	211	T1 hawthorn, T2 smoke bush, T3 Irish yew, T4 crab apple, T5 juniper and T6 *Rhus typhina* - fell	28/06/2021
20211244	Catholic Church next door to 3 Gale Gardens, **Aylsham**	211	T1 oak - crown lift 4 small lowest limbs growing over neighbours' garden to achieve a clearance of 4.5 m.	22/07/2021
20211246	36 Old Road, **Acle**	TPO	Pine – dead. Fell.	Approved
20211247	Wooded Area, Morton Lane, **Weston Longville**	TPO	Beech – dead. Fell.	Approved
20211252	The Beeches, Gashouse Hill, **Aylsham**	211	Beech x2 on front bank. Cut back from property by 1.5m & raise 2.5m above pavement & 5.5m above highway.	02/07/2021
20211257	12 Woodland Drive, **Thorpe End**	211	T1 Indian bean, T3 magnolia, T4, T8, T9 & T11 holly, T5 cotoneaster, T6 yew, T7 spruce & T12 laurel – fell. T10 hazel – coppice. G2 laurel/holly/Lawson cypress hedge/shelterbelt - remove and replant with laurel to add to new line of hedge planted next door.	05/07/2021
20211258	Loke House, Blofields Loke, **Aylsham**	211	T1 conifer - current height 7.5m, 2.0m off top, re-shape. T2 conifer - current height 7m, 2.0m off top, re-shape. T3 conifer - current height 6.5m, 2.0m off top, re-shape. T4 purple plum - current height 6.5m, re-shape. T5 holly - current height 6.5m, 1m off top, re-shape. T6 copper beech - current height 10m, 1.5m all round to re-shape. T7 Portugal laurel - current height 5.5m, 1.5m off top, re-shape. T8 conifer (8) - current height 7.5m, 3m off top, re-shape.	20/07/2021
20210159	Wood Lodge, Park Road, **Wroxham**	211	T1 multi-stemmed ash – fell. Ash dieback and low tight unions. T2 willow approx 9 m tall and 10 m wide - reduce crown by approx 2 m to form better shape and reduce extended limbs.	05/07/2021
20211260	46 Charles Close, **Wroxham**	211	T1 & T2 conifers - reduce height by up to 2.5 - 3m, from 11m to 8m - 8.5m and raise lower limbs against fence to avoid damage.	05/07/2021
20211261	Oakwood House, Beech Road, **Wroxham**	211	T1, T3, T5, T6 holly and 4 sycamore - remove to allow better planting. T2 mature oak - remove deadwood and dead stem wood.	05/07/2021
20211280	16 Charles Close, **Wroxham**	TPO	T1 eastern white pine - current height 22m, width 16m, DBH 45cm approx. Reduce extended laterals by approx 3m to suitable growth points. Reduce upper crown by 1.5m. Reduce damaged branch in upper crown back to primary union.	21/07/2021
20211181	1B Hillside Avenue, **Thorpe St Andrew**	TPO	T1 beech - current height 19m, crown radius 8m, DBH 0.87m - remove tree and its stump	07/07/2021
21211286	Robinswood, 4 The Avenue, **Wroxham**,	TPO	Oak - clean out crown of deadwood and suppressed branches. Tip-reduce long extended branch to north-east from 10m radius to approx 5.5m leaving a natural form. Moribund Lawson cypress - fell.	07/07/2021

20211961	Oakwood House, Beech Road, **Wroxham**	211	T1, T3, T5, T6 holly & T4 sycamore - remove to allow better planting. T2 mature oak - remove deadwood and dead stem wood.	05/07/2021
20211269	Dairy Farmhouse, Heydon Lane, **Heydon**	211	Removal of dead tree.	Approved
20211270	2 Rockland Drive, **Thorpe St Andrew**	TPO	Removal of dead Scots pine.	Approved
20211272	142 Norwich Road, **Wroxham**	211	Removal of dead conifer.	Approved
20211310	121A Yarmouth Road, **Thorpe St Andrew**	TPO	T1, T2, T3, T4 & T6 horse chestnut and T7 oak - reduce eastern aspect of crown to leave a spread of 6-7m. T5 sycamore - reduce eastern aspect of crown by a 3m max to leave a spread of 6-7m (current spread 9-10m) in order to reduce end loading on branches.	5/07/2021
20211315	129 Norwich Road, **Wroxham**	211	*Acer platanoides* x 2 – fell.	15/07/2021
20211325	Land At Haveringland Hall Park, Haveringland Hall Park, **Haveringland**	TPO	T1 goat willow - remove as close to property and not appropriate species for space. Re-plant with cherry or rowan. T2 black cherry - crown clean and reduce by approx 2-3m start height 5m finish 3m. T3 oak - prune back overhang by 3m. Start 9m finish 6m. T4 cypress raise lower canopy to allow more light to property approx 2m from ground.	21/07/2021
20211326	8 Mill Meadow, **Strumpshaw**	TPO	T1 ash - removal of lowest branch back to main stem in order to provide sufficient clearance.	16/07/2021
20211328	19 Kevill Davis Drive, **Little Plumstead**	TPO	T1 *Robinia pseudoacacia* - crown lift to 4m. Reduce lower lateral branches on western and southern aspects of crown by 2m (current spread 8m) to provide sufficient clearance for house and reduce the likelihood of branch failure. Remove deadwood.	16/07/2021
20211341	Royal Norwich Golf Club, The Weston Estate, Weston Hall Road, **Weston Longville**	TPO	Removal of 7 x dead oak, 6 x dead birch, 1 x dead elm, 2 x dead cherry, 2 x dead grandis and 1 x dead ash,	Approved
20211342	6 Holman Road, **Aylsham**	211	Walnut - 6.5m high 7.5m wide. Crown lift to approx 2m. Crab Apple - 4m high 3.75m wide - crown lift to 1.5m.	10/07/2021
20211345	Church Of All Saints, Church Lane, **Marsham**	TPO	T1 lime Tag 491 - clean out crown of all deadwood, crossing and suppressed branches. Reduce upper main limb die-back down to live growth points by removing dead stubs. Reduce side canopy branch structure leading off the decayed limbs by 1.5m to natural growth points leaving a crown spread of N - 4.5m, S - 4.5m, E - 5m & W - 3m. Reduce remaining upper crown by 2.5m to natural growth points, leaving a height of 17m. T6 lime Tag 496 - remove shoots around stem base to aid future inspection. Clean out crown of deadwood, crossing and suppressed branches. T7 lime No 7 Tag 497 - remove damaged branch in east side of canopy to small epicormic shoots below tear wound. Remove broken branch lodged in lower canopy. Remove deadwood over 1cm in diameter.	20/07/2021
20211350	1 Harker Way, **Blofield**	TPO	T1 sycamore - crown lift to 6m, reduce lateral branches on western aspect of crown by 1.5m (current radius 7m) and remove deadwood.	21/27/2021
20211358	Land at Banningham Road	211	T3 beech - reduce branches over road by 2.5m to leave approx 6-7m. Conifer - reduce back from road by approx 1m retaining green growth. T5 conifer - crown lift over property by 2m. G1 sycamores - fell 01 and T7.	21/07/2021
20211359	Yarehill, 56 Thunder Lane, **Thorpe St Andrew**	TPO	T1 sycamore – fell.	16/07/2021
20211364	Pinewood Cottage, 23 The Avenue, **Wroxham**	211	T1 western red cedar - remove low-growing shoots to facilitate easier access. Maximum height of work 3m. Thickness of shoots up to 75mm. T2 western red cedar - remove dead/weak branches. Maximum height of work 4m. Thickness of branches up to 100mm. T3 sycamore - remove epicormic shoots growing towards neighbouring roof following earlier branch removal. Maximum height of work 4m. Thickness of shoots up to 75mm.	22/07/2021
20211369	Wood Cottage, 55 Lower Street, **Salhouse**	211	Conifer x 2 and lilac - fell.	15/07/2021
20211377	Lakeside, 2 Haveringland Hall Park, **Haveringland**	TPO	T1 oak - pollard to 6m from 11m. Tree sustained serious canopy damage from high winds. On inspection large stress cracks seen on trunk and several hazard beam cracks on limbs. Lots of targets below some need sorting asap.	26/07/2021

20211382	Avenue House, 10 Staitheway Road, **Wroxham**	TPO	Following site meeting with Mark Symonds and Petra Witton - resubmission of site. T1 conifers - remove due to proximity to the garage. T2 conifer - to be raised to 3.0m to clear garage unit (agreed with neighbours to prune tree. H3 conifer hedge - remove to allow more natural light in. T4 pine - to be deadwooded. T5 Lawson cypress - remove due to poor form. T6 yew - prune low hanging branches to secondary growth, tidy stubs. Crown raise will finish at 3-3.3m. T7 hemlock - raise by pruning lowest 3 whorl growths to stem. G8/G9 – lime & horse chestnuts - crown lift to a 5m max by reducing back branch endings to suitable growth points on secondary or tertiary branches. Remove epicormic growth around basal areas and trunks. T10 cedar – suppressed. Fell. T11 conifer and T12 multi-stemmed holly - remove. T13 pine - reduce two lowest branches overhanging house extension by up 2m to back to a suitable growth point.	26/07/2021
20211383	Meadowside, 29 Church Lane, **Wroxham**	TPO	Would like to remove garden conifer hedge at eastern end of back garden. Permission granted to reduce height in February 2021, but now wish to remove hedge completely to clear that area of garden to make space and improve appearance. Hedge is not covered by a TPO. Photos show where height of hedge has been reduced as allowed by application. Whilst doing this we have realised that we would rather remove the hedge if possible.	26/07/2021
20211387	1 Holly Bank, **Sprowston**	TPO	T1 – reduce height by about 7m and reshape because tree is now at excessive height with risk to property and public if it falls. T2 - cut back in line with neighbouring tree. Work done on two previous trees on property which have had a positive effect on trees giving a new lease of life as they have all grown distorted.	27/07/2021
20211393	61 Plumstead Road, **Thorpe End**	TPO	T1 cherry plum - 3-4m reduction and crown thin by 25%. Current height 8m. T2 *Viburnum opulus* - 2m reduction and crown clean. Current height 4m.	27/07/2021
20211394	The Croft, 92 Taverham Road, **Taverham**	TPO	T3 - T7 - fell to ground (see report for more details). T4 and G1- remove deadwood/dead trees. T9 English oak - remove major deadwood and cut back to give 2.5m clearance from structure	27/07/2021

Explanatory Notes:

1) App No is the unique Broadland District Council Planning Application number allocated to the application to carry out work and is the number by which progress of the application may be traced. Any comment, objection, support or request for information should quote this number.
2) Address is the address to which the application for work relates. In other words, it is the address where the trees for which the application is made are located.
3) Cat (ie Category) denotes the type of application. TPO = works to trees subject to a Tree Preservation Order; or
   211 = Section 211 Notifications for Works to Trees Within Conservation Areas
4) Species / Requested Works is the species of the tree(s) concerned and details of the work proposed. A reference such as T1, T2 or G1 may also appear and that is simply a reference to the tree(s) on the TPO, Conservation Order or simply on the application.
5) Decision is either the date on which the application was received by Broadland District Council or the actual decision.
6) This list is not intended to be a definitive list of all the relevant details. The reader should always refer to the specific application on the Broadland District Council "Planning Explorer" at https://secure.broadland.gov.uk/Northgate/PlanningExplorer/GeneralSearch.aspx to view the application or read the Council's decision.